Application: 26-11-
(U 39 M)
Exhibit No.: (PG&E-2)
Date: November 3, 2026
Witness(es): Various

PACIFIC GAS AND ELECTRIC COMPANY

ENTERPRISE RESOURCE PLANNING (ERP) AND GEOGRAPHIC INFORMATION SYSTEMS (GIS) TRANSFORMATION

WORKPAPERS SUPPORTING PREPARED TESTIMONY



PACIFIC GAS AND ELECTRIC COMPANY
ENTERPRISE RESOURCE PLANNING (ERP) AND GEOGRAPHIC INFORMATION SYSTEMS (GIS) TRANSFORMATION
WORKPAPERS SUPPORTING OPENING TESTIMONY

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3	WORKPAPERS SUPPORTING CHAPTER 3	Jenn Conway
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WORKPAPERS SUPPORTING CHAPTER 1

Workpaper 1-1
Pacific Gas and Electric Company
Esri Newsletter

Email from Esri (newsletter@esri.com), received January 19, 2023:

View email in web browser.

esri



Dear Jadwindar,

Now that 2022 has ended, I again want to personally thank you for your ongoing use of Esri technology and relay a few important updates for our network management users.

As you know, Esri has been systematically creating and releasing the next generation of utility-focused GIS. Central to this is a new utility network data model with many innovations that are developing to be major benefits to our users. Our ongoing software development priorities are focused on both advancing the platform with quality and performance improvements and helping our users migrate their systems to this new data model.

ArcGIS Utility Network continues to progress with many utilities and telecoms successfully going live in the past year. It remains our strategic direction and the path forward when your organization is ready.

We recognize that some of our users cannot immediately migrate their systems to the utility network. Therefore, in response to some of our users' requests, Esri has decided to extend the support of ArcMap until February 2028. This will allow our users the extra time to upgrade their current systems. As part of this adjustment, we will also be taking steps to better communicate our recommended releases that support your network management system. Esri will continue to share implementation recommendations and patterns that will allow customers to deploy ArcGIS with the confidence that it will support their business needs. Please work with your account manager if you have questions.

We look forward to working with you as you migrate your systems … and long into the future.

Best regards,

Jack Dangermond

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WORKPAPERS SUPPORTING CHAPTER 3

PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION
WORKPAPERS SUPPORTING
CHAPTER 3 - COST AND BENEFIT FORECAST ANALYSIS

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Workpaper 3-1
Pacific Gas and Electric Company
ERP and GIS Transformation
Solution Cost Group Workpaper

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Workpaper 3-1
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Solution Costs - Testimony Tables

TABLE 3-6
SOLUTION COST GROUP - CAPITAL EXPENDITURES BY PLATFORM AND COST GROUP
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Cost Type	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	Work and Asset Management	$ 1.0	$ 4.0	$ 24.7	$ 42.3	$ 67.5	$ 75.2	$ 122.1	$ 30.7	$ 367.4
2	Supply Chain	0.4	1.8	11.1	22.1	31.2	31.7	52.8	14.7	165.9
3	Finance	0.4	1.7	10.4	25.4	23.7	19.2	45.0	29.4	155.2
4	Human Resources	0.3	1.0	6.4	23.4	16.5	5.9	20.7	21.0	95.2
5	Integrated Planning	0.1	0.3	2.1	10.6	7.5	3.9	5.6	1.4	31.6
6	Enterprise Health and Safety	0.0	0.2	1.1	9.8	5.0	-	-	-	16.2
7	Dev, Int, Sol Deliv	0.7	3.0	18.1	44.9	61.8	39.8	76.1	25.6	270.0
8	Data and Analytics	0.3	1.2	7.3	20.9	18.3	16.0	31.0	13.9	109.0
9	**ERP Total**	**$ 3.2**	**$ 13.3**	**$ 81.3**	**$ 199.4**	**$ 231.5**	**$ 191.6**	**$ 353.5**	**$ 136.6**	**$ 1,210.4**
10	Applications and Processes	$ -	$ 2.0	$ 14.9	$ 64.8	$ 84.7	$ 73.5	$ 67.5	$ -	$ 307.4
11	Data Migration and Conversion	$ -	$ 0.4	$ 2.7	$ 13.7	$ 19.7	$ 15.6	$ 4.0	$ -	$ 56.0
12	**GIS Total**	**$ -**	**$ 2.4**	**$ 17.6**	**$ 78.5**	**$ 104.3**	**$ 89.1**	**$ 71.5**	**$ -**	**$ 363.4**
13	**Total**	**$ 3.2**	**$ 15.7**	**$ 98.9**	**$ 277.9**	**$ 335.8**	**$ 280.7**	**$ 425.0**	**$ 136.6**	**$ 1,573.8**

Solution Costs - Testimony Tables

TABLE 3-7
WAM WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.5	$ 2.0	$ 12.3	$ 23.8	$ 35.7	$ 35.8	$ 58.1	$ 14.5	$ 182.7
2	External	0.5	2.0	12.4	18.5	31.8	39.4	64.0	16.2	184.7
3	**Total**	**$ 1.0**	**$ 4.0**	**$ 24.7**	**$ 42.3**	**$ 67.5**	**$ 75.2**	**$ 122.1**	**$ 30.7**	**$ 367.4**

TABLE 3-8
SUPPLY CHAIN WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.2	$ 0.9	$ 5.4	$ 10.2	$ 14.5	$ 15.6	$ 26.0	$ 7.2	$ 79.9
2	External	0.2	0.9	5.8	11.9	16.7	16.1	26.8	7.5	86.0
3	**Total**	**$ 0.4**	**$ 1.8**	**$ 11.1**	**$ 22.1**	**$ 31.2**	**$ 31.7**	**$ 52.8**	**$ 14.7**	**$ 165.9**

TABLE 3-9
FINANCE WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.2	$ 0.7	$ 4.5	$ 10.1	$ 8.9	$ 8.7	$ 20.4	$ 13.4	$ 67.0
2	External	0.2	1.0	5.9	15.3	14.8	10.5	24.6	16.0	88.2
3	**Total**	**$ 0.4**	**$ 1.7**	**$ 10.4**	**$ 25.4**	**$ 23.7**	**$ 19.2**	**$ 45.0**	**$ 29.4**	**$ 155.2**

Solution Costs - Testimony Tables

TABLE 3-10
HUMAN RESOURCES WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.1	$ 0.4	$ 2.7	$ 10.2	$ 7.2	$ 2.4	$ 8.6	$ 8.7	$ 40.3
2	External	0.1	0.6	3.7	13.2	9.3	3.5	12.2	12.3	54.9
3	**Total**	**$ 0.3**	**$ 1.0**	**$ 6.4**	**$ 23.4**	**$ 16.5**	**$ 5.9**	**$ 20.7**	**$ 21.0**	**$ 95.2**

TABLE 3-11
INTEGRATED PLANNING WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.0	$ 0.1	$ 0.8	$ 3.1	$ 2.9	$ 1.9	$ 2.8	$ 0.7	$ 12.5
2	External	0.1	0.2	1.3	7.5	4.6	1.9	2.8	0.7	19.1
3	**Total**	**$ 0.1**	**$ 0.3**	**$ 2.1**	**$ 10.6**	**$ 7.5**	**$ 3.9**	**$ 5.6**	**$ 1.4**	**$ 31.6**

TABLE 3-12
ENTERPRISE HEALTH & SAFETY WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.0	$ 0.1	$ 0.6	$ 4.7	$ 3.0	$ -	$ -	$ -	$ 8.4
2	External	0.0	0.1	0.5	5.1	2.1	-	-	-	7.8
3	**Total**	**$ 0.0**	**$ 0.2**	**$ 1.1**	**$ 9.8**	**$ 5.0**	**$ -**	**$ -**	**$ -**	**$ 16.2**

TABLE 3-13

DEVELOPMENT, INTEGRATION AND SOLUTION DELIVERY WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.3	$ 1.2	$ 7.1	$ 23.0	$ 25.5	$ 13.9	$ 26.1	$ 8.7	$ 105.8
2	External	0.4	1.8	11.0	21.9	36.3	25.9	50.0	16.8	164.3
3	**Total**	**$ 0.7**	**$ 3.0**	**$ 18.1**	**$ 44.9**	**$ 61.8**	**$ 39.8**	**$ 76.1**	**$ 25.6**	**$ 270.0**

Workpaper 3-1
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Solution Costs - Testimony Tables

TABLE 3-14
DATA AND ANALYTICS WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	2024	2025	Forecast 2026	2027	2028	2029	2030	Total
1	PG&E	$ 0.1	$ 0.3	$ 1.8	$ 7.0	$ 5.8	$ 3.2	$ 6.1	$ 2.7	$ 27.0
2	External	0.2	0.9	5.5	13.9	12.5	12.8	24.9	11.2	82.0
3	**Total**	**$ 0.3**	**$ 1.2**	**$ 7.3**	**$ 20.9**	**$ 18.3**	**$ 16.0**	**$ 31.0**	**$ 13.9**	**$ 109.0**

TABLE 3-15
APPLICATIONS AND PROCESSES WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	2024	2025	Forecast 2026	2027	2028	2029	2030	Total
1	PG&E	$ -	$ 0.9	$ 6.6	$ 29.4	$ 43.6	$ 35.0	$ 20.3	$ -	$ 135.8
2	External	-	1.1	8.3	35.4	41.1	38.5	47.2	-	171.6
3	**Total**	**$ -**	**$ 2.0**	**$ 14.9**	**$ 64.8**	**$ 84.7**	**$ 73.5**	**$ 67.5**	**$ -**	**$ 307.4**

TABLE 3-16
DATA MIGRATION AND CONVERSION WORKSTREAM – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	2024	2025	Forecast 2026	2027	2028	2029	2030	Total
1	PG&E	$ -	$ 0.1	$ 0.7	$ 3.5	$ 4.4	$ 3.9	$ 1.1	$ -	$ 13.6
2	External	-	0.3	2.1	10.2	15.2	11.7	2.9	-	42.4
3	**Total**	**$ -**	**$ 0.4**	**$ 2.7**	**$ 13.7**	**$ 19.7**	**$ 15.6**	**$ 4.0**	**$ -**	**$ 56.0**

TABLE 3-32
SOLUTION COST GROUP – O&M EXPENSE BY PLATFORM AND WORKSTREAM
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	2027	2028	2029	2030	Total
1	GIS - Solution	$ 3.9	$ 5.5	$ 5.2	$ 4.9	$ 19.6

Workpaper 3-1A
Pacific Gas and Electric Company
ERP and GIS Transformation
Solution Workpaper Summary (ERP and GIS, All Labor Types)
Thousands of Dollars - Nominal

Solution Cost Group Workpaper Summary — Combined

PROGRAM	ERP & GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for combined PG&E and external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Solution	Work and Asset Management	83.0	134.3	145.3	234.3	58.8	655.8	$976	$4,037	$24,670	$28,147	$52,078	$56,975	$93,578	$23,760	$284,221	-	-	-	$3,127	-	-	-	-	$3,127	$976	$4,037	$24,670	$31,275	$52,078	$56,975	$93,578	$23,760	$287,348
2	ERP	Solution	Integrated Planning	18.2	12.3	5.9	8.5	2.1	47.1	$84	$347	$2,122	$7,774	$5,581	$2,916	$4,275	$1,096	$24,195	-	-	-	-	-	-	-	-	-	$84	$347	$2,122	$7,774	$5,581	$2,916	$4,275	$1,096	$24,195
3	ERP	Solution	Finance	55.1	48.8	36.3	83.3	54.2	277.6	$412	$1,705	$10,421	$17,894	$18,117	$14,820	$34,756	$23,310	$121,436	-	-	-	$1,988	-	-	-	-	$1,988	$412	$1,705	$10,421	$19,882	$18,117	$14,820	$34,756	$23,310	$123,424
4	ERP	Solution	Supply Chain	52.6	71.4	67.1	110.9	30.9	332.9	$441	$1,823	$11,139	$15,064	$23,898	$24,018	$40,535	$11,478	$128,395	-	-	-	$1,674	-	-	-	-	$1,674	$441	$1,823	$11,139	$16,738	$23,898	$24,018	$40,535	$11,478	$130,068
5	ERP	Solution	Human Resources	54.5	34.6	12.1	40.4	41.0	182.5	$253	$1,046	$6,394	$17,157	$12,462	$4,596	$15,865	$16,592	$74,366	-	-	-	$1,906	-	-	-	-	$1,906	$253	$1,046	$6,394	$19,063	$12,462	$4,596	$15,865	$16,592	$76,273
6	ERP	Solution	Enterprise Health & Safety	20.5	8.6	0.0	0.0	0.0	29.1	$43	$178	$1,087	$7,530	$3,754	-	-	-	$12,592	-	-	-	$837	-	-	-	-	$837	$43	$178	$1,087	$8,366	$3,754	-	-	-	$13,428
7	ERP	Solution	Data & Analytics	62.2	51.7	47.7	90.9	40.5	292.9	$290	$1,198	$7,319	$14,846	$13,715	$12,070	$23,489	$10,725	$83,650	-	-	-	$1,427	-	-	-	-	$1,427	$290	$1,198	$7,319	$16,273	$13,715	$12,070	$23,489	$10,725	$85,077
8	ERP	Solution	Development, Integration, & Solution Delivery	107.4	180.3	114.2	221.4	72.9	696.2	$718	$2,967	$18,134	$31,757	$47,950	$30,164	$58,356	$19,865	$209,911	-	-	-	$1,569	-	-	-	-	$1,569	$718	$2,967	$18,134	$33,326	$47,950	$30,164	$58,356	$19,865	$211,480
9			**ERP Subtotal**	**453.5**	**541.9**	**428.6**	**789.7**	**300.5**	**2514.1**	**$3,217**	**$13,301**	**$81,285**	**$140,168**	**$177,555**	**$145,559**	**$270,853**	**$106,827**	**$938,765**	-	-	-	**$12,528**	-	-	-	-	**$12,528**	**$3,217**	**$13,301**	**$81,285**	**$152,696**	**$177,555**	**$145,559**	**$270,853**	**$106,827**	**$951,293**
10	GIS	Solution	Applications & Processes	126.0	186.7	146.5	31.7	0.0	490.9	-	$2,009	$14,883	$41,122	$59,243	$48,193	$10,239	-	$175,690	-	-	-	$2,482	-	-	-	-	$2,482	-	$2,009	$14,883	$43,604	$59,243	$48,193	$10,239	-	$178,172
11	GIS	Solution	Data Migration & Conversion	39.2	60.4	42.0	9.2	0.0	150.8	-	$366	$2,711	$9,516	$14,712	$11,553	$2,723	-	$41,581	-	-	-	$1,477	-	-	-	-	$1,477	-	$366	$2,711	$10,992	$14,712	$11,553	$2,723	-	$43,058
12			**GIS Subtotal**	**165.2**	**247.1**	**188.5**	**40.9**	**0.0**	**641.7**	-	**$2,375**	**$17,595**	**$50,637**	**$73,956**	**$59,747**	**$12,962**	-	**$217,271**	-	-	-	**$3,959**	-	-	-	-	**$3,959**	-	**$2,375**	**$17,595**	**$54,596**	**$73,956**	**$59,747**	**$12,962**	-	**$221,230**
13			**Base Forecast Total**	**618.6**	**789.0**	**617.2**	**830.6**	**300.5**	**3155.8**	**$3,217**	**$15,676**	**$98,880**	**$190,805**	**$251,511**	**$205,305**	**$283,815**	**$106,827**	**$1,156,036**	-	-	-	**$16,487**	-	-	-	-	**$16,487**	**$3,217**	**$15,676**	**$98,880**	**$207,293**	**$251,511**	**$205,305**	**$283,815**	**$106,827**	**$1,172,524**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
14	ERP	Solution	Work and Asset Management										$5,629	$10,416	$11,395	$18,716	$4,752	$50,907	-	-	-	$625	-	-	-	-	$625	-	-	-	$6,255	$10,416	$11,395	$18,716	$4,752	$51,533
15	ERP	Solution	Integrated Planning										$1,555	$1,116	$583	$855	$219	$4,328	-	-	-	-	-	-	-	-	-	-	-	-	$1,555	$1,116	$583	$855	$219	$4,328
16	ERP	Solution	Finance										$3,579	$3,623	$2,964	$6,951	$4,662	$21,780	-	-	-	$398	-	-	-	-	$398	-	-	-	$3,976	$3,623	$2,964	$6,951	$4,662	$22,177
17	ERP	Solution	Supply Chain										$3,013	$4,780	$4,804	$8,107	$2,296	$22,998	-	-	-	$335	-	-	-	-	$335	-	-	-	$3,348	$4,780	$4,804	$8,107	$2,296	$23,333
18	ERP	Solution	Human Resources										$3,431	$2,492	$919	$3,173	$3,318	$13,335	-	-	-	$381	-	-	-	-	$381	-	-	-	$3,813	$2,492	$919	$3,173	$3,318	$13,716
19	ERP	Solution	Enterprise Health & Safety										$1,506	$751	-	-	-	$2,257	-	-	-	$167	-	-	-	-	$167	-	-	-	$1,673	$751	-	-	-	$2,424
20	ERP	Solution	Data & Analytics										$2,969	$2,743	$2,414	$4,698	$2,145	$14,969	-	-	-	$285	-	-	-	-	$285	-	-	-	$3,255	$2,743	$2,414	$4,698	$2,145	$15,254
21	ERP	Solution	Development, Integration, & Solution Delivery										$6,351	$9,590	$6,033	$11,671	$3,973	$37,618	-	-	-	$314	-	-	-	-	$314	-	-	-	$6,665	$9,590	$6,033	$11,671	$3,973	$37,932
22			**ERP Subtotal**										**$28,034**	**$35,511**	**$29,112**	**$54,171**	**$21,365**	**$168,192**	-	-	-	**$2,506**	-	-	-	-	**$2,506**	-	-	-	**$30,539**	**$35,511**	**$29,112**	**$54,171**	**$21,365**	**$170,698**
23	GIS	Solution	Applications & Processes										$8,224	$11,849	$9,639	$2,048	-	$31,760	-	-	-	$496	-	-	-	-	$496	-	-	-	$8,721	$11,849	$9,639	$2,048	-	$32,256
24	GIS	Solution	Data Migration & Conversion										$1,903	$2,942	$2,311	$545	-	$7,701	-	-	-	$295	-	-	-	-	$295	-	-	-	$2,198	$2,942	$2,311	$545	-	$7,996
25			**GIS Subtotal**										**$10,127**	**$14,791**	**$11,949**	**$2,592**	-	**$39,460**	-	-	-	**$792**	-	-	-	-	**$792**	-	-	-	**$10,919**	**$14,791**	**$11,949**	**$2,592**	-	**$40,252**
26			**Contingencies Total**	-	-	-	-	-	-	-	-	-	**$38,161**	**$50,302**	**$41,061**	**$56,763**	**$21,365**	**$207,653**	-	-	-	**$3,297**	-	-	-	-	**$3,297**	-	-	-	**$41,459**	**$50,302**	**$41,061**	**$56,763**	**$21,365**	**$210,950**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
27	ERP	Solution	Work and Asset Management										$727	$1,430	$1,952	$3,207	$817	$8,132	-	-	-	$81	-	-	-	-	$81	-	-	-	$807	$1,430	$1,952	$3,207	$817	$8,213
28	ERP	Solution	Integrated Planning										$504	$318	$139	$204	$53	$1,218	-	-	-	-	-	-	-	-	-	-	-	-	$504	$318	$139	$204	$53	$1,218
29	ERP	Solution	Finance										$516	$387	$411	$962	$644	$2,921	-	-	-	$57	-	-	-	-	$57	-	-	-	$574	$387	$411	$962	$644	$2,978
30	ERP	Solution	Supply Chain										$497	$754	$791	$1,333	$379	$3,754	-	-	-	$55	-	-	-	-	$55	-	-	-	$552	$754	$791	$1,333	$379	$3,809
31	ERP	Solution	Human Resources										$603	$363	$187	$644	$671	$2,468	-	-	-	$67	-	-	-	-	$67	-	-	-	$670	$363	$187	$644	$671	$2,535
32	ERP	Solution	Enterprise Health & Safety										$354	$145	-	-	-	$499	-	-	-	$39	-	-	-	-	$39	-	-	-	$394	$145	-	-	-	$539
33	ERP	Solution	Data & Analytics										$685	$652	$661	$1,285	$586	$3,869	-	-	-	$66	-	-	-	-	$66	-	-	-	$751	$652	$661	$1,285	$586	$3,935
34	ERP	Solution	Development, Integration, & Solution Delivery										$902	$1,337	$986	$1,875	$649	$5,749	-	-	-	$51	-	-	-	-	$51	-	-	-	$953	$1,337	$986	$1,875	$649	$5,801
35			**ERP Subtotal**										**$4,788**	**$5,386**	**$5,128**	**$9,511**	**$3,798**	**$28,611**	-	-	-	**$417**	-	-	-	-	**$417**	-	-	-	**$5,205**	**$5,386**	**$5,128**	**$9,511**	**$3,798**	**$29,028**
36	GIS	Solution	Applications & Processes										$1,716	$2,202	$1,839	$433	-	$6,190	-	-	-	$136	-	-	-	-	$136	-	-	-	$1,852	$2,202	$1,839	$433	-	$6,327
37	GIS	Solution	Data Migration & Conversion										$493	$830	$674	$159	-	$2,155	-	-	-	$85	-	-	-	-	$85	-	-	-	$577	$830	$674	$159	-	$2,240
38			**GIS Subtotal**										**$2,208**	**$3,032**	**$2,513**	**$593**	-	**$8,346**	-	-	-	**$221**	-	-	-	-	**$221**	-	-	-	**$2,430**	**$3,032**	**$2,513**	**$593**	-	**$8,567**
39			**Meals and Travel Total**	-	-	-	-	-	-	-	-	-	**$6,997**	**$8,418**	**$7,641**	**$10,104**	**$3,798**	**$36,957**	-	-	-	**$638**	-	-	-	-	**$638**	-	-	-	**$7,635**	**$8,418**	**$7,641**	**$10,104**	**$3,798**	**$37,595**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
40	ERP	Solution	Work and Asset Management										$924	$3,545	$4,856	$6,595	$1,336	$17,256	-	-	-	-	-	-	-	-	-	-	-	-	$924	$3,545	$4,856	$6,595	$1,336	$17,256
41	ERP	Solution	Integrated Planning										$171	$508	$222	$302	$61	$1,264	-	-	-	-	-	-	-	-	-	-	-	-	$171	$508	$222	$302	$61	$1,264
42	ERP	Solution	Finance										$509	$1,566	$985	$2,341	$744	$6,145	-	-	-	-	-	-	-	-	-	-	-	-	$509	$1,566	$985	$2,341	$744	$6,145
43	ERP	Solution	Supply Chain										$480	$1,742	$2,072	$2,841	$502	$7,637	-	-	-	-	-	-	-	-	-	-	-	-	$480	$1,742	$2,072	$2,841	$502	$7,637
44	ERP	Solution	Human Resources										$433	$1,184	$161	$1,067	$424	$3,269	-	-	-	-	-	-	-	-	-	-	-	-	$433	$1,184	$161	$1,067	$424	$3,269
45	ERP	Solution	Enterprise Health & Safety										$144	$389	-	-	-	$533	-	-	-	-	-	-	-	-	-	-	-	-	$144	$389	-	-	-	$533
46	ERP	Solution	Data & Analytics										$382	$1,212	$866	$1,556	$448	$4,463	-	-	-	-	-	-	-	-	-	-	-	-	$382	$1,212	$866	$1,556	$448	$4,463
47	ERP	Solution	Development, Integration, & Solution Delivery										$866	$2,900	$2,655	$4,226	$1,079	$11,727	-	-	-	-	-	-	-	-	-	-	-	-	$866	$2,900	$2,655	$4,226	$1,079	$11,727
48			**ERP Subtotal**										**$3,910**	**$13,045**	**$11,818**	**$18,928**	**$4,593**	**$52,293**	-	-	-	-	-	-	-	-	-	-	-	-	**$3,910**	**$13,045**	**$11,818**	**$18,928**	**$4,593**	**$52,293**
49	GIS	Solution	Applications & Processes										$3,536	$5,360	$4,943	$3,171	-	$17,010	-	-	-	-	-	-	-	-	-	-	-	-	$3,536	$5,360	$4,943	$3,171	-	$17,010
50	GIS	Solution	Data Migration & Conversion										$718	$1,169	$1,070	$575	-	$3,532	-	-	-	-	-	-	-	-	-	-	-	-	$718	$1,169	$1,070	$575	-	$3,532
51			**GIS Subtotal**										**$4,254**	**$6,529**	**$6,013**	**$3,746**	-	**$20,542**				-	-	-	-	-	-	-	-	-	**$4,254**	**$6,529**	**$6,013**	**$3,746**	-	**$20,542**
52			**AFUDC Total**	-	-	-	-	-	-	-	-	-	**$8,163**	**$19,574**	**$17,831**	**$22,674**	**$4,593**	**$72,835**	-	-	-	-	-	-	-	-	-	-	-	-	**$8,163**	**$19,574**	**$17,831**	**$22,674**	**$4,593**	**$72,835**

Workpaper 3-1A
Pacific Gas and Electric Company
ERP and GIS Transformation
Solution Workpaper Summary (ERP and GIS, All Labor Types)
Thousands of Dollars - Nominal

Solution Cost Group Workpaper Summary — Combined

PROGRAM	ERP & GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for combined PG&E and external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

Table 5: Other Adjustment (See Note 1 below)				Annual Staffing — No Adjustments						Other Capital Adjustments [1]								Other Expense Adjustments [1]								Other Total Adjustments [1]							
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
53	ERP	Solution	Work and Asset Management										$6,837	-	-	-	-	$6,837	-	-	-	($3,834)	-	-	-	-	($3,834)	-	-	-	$3,003	-	-	-	-	$3,003
54	ERP	Solution	Integrated Planning										$588	-	-	-	-	$588	-	-	-	-	-	-	-	-	-	-	-	-	$588	-	-	-	-	$588
55	ERP	Solution	Finance										$2,888	-	-	-	-	$2,888	-	-	-	($2,443)	-	-	-	-	($2,443)	-	-	-	$445	-	-	-	-	$445
56	ERP	Solution	Supply Chain										$3,087	-	-	-	-	$3,087	-	-	-	($2,064)	-	-	-	-	($2,064)	-	-	-	$1,023	-	-	-	-	$1,023
57	ERP	Solution	Human Resources										$1,772	-	-	-	-	$1,772	-	-	-	($2,355)	-	-	-	-	($2,355)	-	-	-	($583)	-	-	-	-	($583)
58	ERP	Solution	Enterprise Health & Safety										$301	-	-	-	-	$301	-	-	-	($1,043)	-	-	-	-	($1,043)	-	-	-	($742)	-	-	-	-	($742)
59	ERP	Solution	Data & Analytics										$2,028	-	-	-	-	$2,028	-	-	-	($1,778)	-	-	-	-	($1,778)	-	-	-	$250	-	-	-	-	$250
60	ERP	Solution	Development, Integration, & Solution Delivery										$5,025	-	-	-	-	$5,025	-	-	-	($1,934)	-	-	-	-	($1,934)	-	-	-	$3,091	-	-	-	-	$3,091
61			**ERP Subtotal**										**$22,526**	-	-	-	-	**$22,526**	-	-	-	**($15,451)**	-	-	-	-	**($15,451)**	-	-	-	**$7,075**	-	-	-	-	**$7,075**
62	GIS	Solution	Applications & Processes										$10,217	$6,033	$8,869	$51,637	-	$76,755	-	-	-	($3,115)	$3,923	$5,519	$5,208	$4,914	$16,449	-	-	-	$7,101	$9,956	$14,388	$56,845	$4,914	$93,205
63	GIS	Solution	Data Migration & Conversion										$1,035	-	-	-	-	$1,035	-	-	-	($1,857)	-	-	-	-	($1,857)	-	-	-	($822)	-	-	-	-	($822)
64			**GIS Subtotal**										**$11,252**	**$6,033**	**$8,869**	**$51,637**	-	**$77,791**	-	-	-	**($4,972)**	**$3,923**	**$5,519**	**$5,208**	**$4,914**	**$14,592**	-	-	-	**$6,280**	**$9,956**	**$14,388**	**$56,845**	**$4,914**	**$92,383**
65			**Other Adjustments Total**	-	-	-	-	-	-	-	-	-	**$33,778**	**$6,033**	**$8,869**	**$51,637**	-	**$100,316**	-	-	-	**($20,423)**	**$3,923**	**$5,519**	**$5,208**	**$4,914**	**($858)**	-	-	-	**$13,355**	**$9,956**	**$14,388**	**$56,845**	**$4,914**	**$99,458**

Table 6: Total Forecast				Annual Staffing (FTE)						Total Capital Forecast									Total Expense Forecast									Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
66	ERP	Solution	Work and Asset Management	83.0	134.3	145.3	234.3	58.8	655.8	$976	$4,037	$24,670	$42,263	$67,468	$75,178	$122,096	$30,665	$367,353	-	-	-	-	-	-	-	-	-	$976	$4,037	$24,670	$42,263	$67,468	$75,178	$122,096	$30,665	$367,353
67	ERP	Solution	Integrated Planning	18.2	12.3	5.9	8.5	2.1	47.1	$84	$347	$2,122	$10,592	$7,523	$3,861	$5,636	$1,429	$31,594	-	-	-	-	-	-	-	-	-	$84	$347	$2,122	$10,592	$7,523	$3,861	$5,636	$1,429	$31,594
68	ERP	Solution	Finance	55.1	48.8	36.3	83.3	54.2	277.6	$412	$1,705	$10,421	$25,386	$23,694	$19,180	$45,010	$29,361	$155,168	-	-	-	-	-	-	-	-	-	$412	$1,705	$10,421	$25,386	$23,694	$19,180	$45,010	$29,361	$155,168
69	ERP	Solution	Supply Chain	52.6	71.4	67.1	110.9	30.9	332.9	$441	$1,823	$11,139	$22,141	$31,173	$31,685	$52,815	$14,654	$165,871	-	-	-	-	-	-	-	-	-	$441	$1,823	$11,139	$22,141	$31,173	$31,685	$52,815	$14,654	$165,871
70	ERP	Solution	Human Resources	54.5	34.6	12.1	40.4	41.0	182.5	$253	$1,046	$6,394	$23,396	$16,502	$5,864	$20,749	$21,006	$95,210	-	-	-	-	-	-	-	-	-	$253	$1,046	$6,394	$23,396	$16,502	$5,864	$20,749	$21,006	$95,210
71	ERP	Solution	Enterprise Health & Safety	20.5	8.6	-	-	-	29.1	$43	$178	$1,087	$9,836	$5,039	-	-	-	$16,182	-	-	-	-	-	-	-	-	-	$43	$178	$1,087	$9,836	$5,039	-	-	-	$16,182
72	ERP	Solution	Data & Analytics	62.2	51.7	47.7	90.9	40.5	292.9	$290	$1,198	$7,319	$20,910	$18,322	$16,011	$31,027	$13,903	$108,980	-	-	-	-	-	-	-	-	-	$290	$1,198	$7,319	$20,910	$18,322	$16,011	$31,027	$13,903	$108,980
73	ERP	Solution	Development, Integration, & Solution Delivery	107.4	180.3	114.2	221.4	72.9	696.2	$718	$2,967	$18,134	$44,901	$61,776	$39,838	$76,129	$25,566	$270,031	-	-	-	-	-	-	-	-	-	$718	$2,967	$18,134	$44,901	$61,776	$39,838	$76,129	$25,566	$270,031
74			**ERP Subtotal**	**453.5**	**541.9**	**428.6**	**789.7**	**300.5**	**2,514.1**	**$3,217**	**$13,301**	**$81,285**	**$199,425**	**$231,497**	**$191,616**	**$353,463**	**$136,584**	**$1,210,388**	-	-	-	-	-	-	-	-	-	**$3,217**	**$13,301**	**$81,285**	**$199,425**	**$231,497**	**$191,616**	**$353,463**	**$136,584**	**$1,210,388**
75	GIS	Solution	Applications & Processes	126.0	186.7	146.5	31.7	-	490.9	-	$2,009	$14,883	$64,814	$84,687	$73,484	$67,528	-	$307,405	-	-	-	-	$3,923	$5,519	$5,208	$4,914	$19,564	-	$2,009	$14,883	$64,814	$88,610	$79,003	$72,737	$4,914	$326,970
76	GIS	Solution	Data Migration & Conversion	39.2	60.4	42.0	9.2	-	150.8	-	$366	$2,711	$13,665	$19,653	$15,607	$4,002	-	$56,004	-	-	-	-	-	-	-	-	-	-	$366	$2,711	$13,665	$19,653	$15,607	$4,002	-	$56,004
77			**GIS Subtotal**	**165.2**	**247.1**	**188.5**	**40.9**	-	**641.7**	-	**$2,375**	**$17,595**	**$78,479**	**$104,340**	**$89,091**	**$71,530**	-	**$363,410**	-	-	-	-	**$3,923**	**$5,519**	**$5,208**	**$4,914**	**$19,564**	-	**$2,375**	**$17,595**	**$78,479**	**$108,263**	**$94,610**	**$76,738**	**$4,914**	**$382,974**
78			**Solution Grand Total**	**618.6**	**789.0**	**617.2**	**830.6**	**300.5**	**3,155.8**	**$3,217**	**$15,676**	**$98,880**	**$277,904**	**$335,837**	**$280,707**	**$424,993**	**$136,584**	**$1,573,797**	-	-	-	-	**$3,923**	**$5,519**	**$5,208**	**$4,914**	**$19,564**	**$3,217**	**$15,676**	**$98,880**	**$277,904**	**$339,760**	**$286,226**	**$430,201**	**$141,498**	**$1,593,362**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. For GIS, Other Adjustments may include Transformation, Remote Sensing, Data Storage, IT/Telecom, and Deployment Support costs developed based on holistic cost estimates. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-1B
Pacific Gas and Electric Company
ERP and GIS Transformation
Solution PG&E Labor Summary Workpaper
Thousands of Dollars - Nominal

Solution Cost Group Workpaper Summary — PG&E Labor

PROGRAM	ERP & GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

				Annual Staffing (FTE)						Base Capital Cost Forecast									Base Expense Cost Forecast									Base Total Cost Forecast									
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
1	ERP	Solution	Work and Asset Management	37.2	53.1	49.1	78.8	19.6	237.9	$486	$2,007	$12,267	$16,456	$27,980	$27,494	$45,155	$11,400	$143,246	-	-	-	$1,828	-	-	-	-	$1,828	$486	$2,007	$12,267	$18,285	$27,980	$27,494	$45,155	$11,400	$145,074	
2	ERP	Solution	Integrated Planning	4.5	4.1	2.6	3.8	1.0	16.0	$33	$137	$837	$2,310	$2,227	$1,503	$2,203	$562	$9,811	-	-	-	-	-	-	-	-	-	$33	$137	$837	$2,310	$2,227	$1,503	$2,203	$562	$9,811	
3	ERP	Solution	Finance	16.3	13.1	12.3	28.1	18.3	88.1	$178	$736	$4,500	$7,158	$6,815	$6,828	$16,042	$10,799	$53,057	-	-	-	$795	-	-	-	-	$795	$178	$736	$4,500	$7,953	$6,815	$6,828	$16,042	$10,799	$53,852	
4	ERP	Solution	Supply Chain	15.8	21.4	21.6	35.6	9.9	104.3	$212	$878	$5,367	$6,999	$11,261	$12,040	$20,358	$5,739	$62,855	-	-	-	$778	-	-	-	-	$778	$212	$878	$5,367	$7,777	$11,261	$12,040	$20,358	$5,739	$63,633	
5	ERP	Solution	Human Resources	17.4	10.8	3.5	11.8	11.9	55.4	$107	$443	$2,706	$7,624	$5,505	$1,930	$6,707	$7,064	$32,087	-	-	-	$847	-	-	-	-	$847	$107	$443	$2,706	$8,472	$5,505	$1,930	$6,707	$7,064	$32,934	
6	ERP	Solution	Enterprise Health & Safety	8.4	4.5	0.0	0.0	0.0	12.9	$22	$92	$562	$3,713	$2,285	-	-	-	$6,674	-	-	-	$413	-	-	-	-	$413	$22	$92	$562	$4,126	$2,285	-	-	-	$7,087	
7	ERP	Solution	Data & Analytics	12.0	8.9	4.5	8.6	3.8	37.9	$72	$297	$1,813	$5,266	$4,552	$2,446	$4,755	$2,176	$21,378	-	-	-	$588	-	-	-	-	$588	$72	$297	$1,813	$5,854	$4,552	$2,446	$4,755	$2,176	$21,966	
8	ERP	Solution	Development, Integration, & Solution Delivery	38.3	39.9	19.9	37.2	12.3	147.6	$281	$1,162	$7,103	$17,048	$20,081	$10,673	$20,328	$6,896	$83,573	-	-	-	$1,099	-	-	-	-	$1,099	$281	$1,162	$7,103	$18,148	$20,081	$10,673	$20,328	$6,896	$84,672	
9			**ERP Subtotal**	**149.8**	**155.8**	**113.7**	**204.0**	**76.8**	**700.1**	**$1,391**	**$5,753**	**$35,156**	**$66,575**	**$80,707**	**$62,915**	**$115,549**	**$44,635**	**$412,680**	-	-	-	**$6,349**	-	-	-	-	**$6,349**	**$1,391**	**$5,753**	**$35,156**	**$72,924**	**$80,707**	**$62,915**	**$115,549**	**$44,635**	**$419,029**	
10	GIS	Solution	Applications & Processes	55.7	78.1	58.3	10.8	0.0	202.9		$887	$6,573	$20,741	$33,725	$26,750	$5,022		$93,699	-	-	-	$933	-	-	-	-	$933	-	$887	$6,573	$21,674	$33,725	$26,750	$5,022	-	$94,631	
11	GIS	Solution	Data Migration & Conversion	6.3	7.0	5.9	1.4	0.0	20.7		$89	$660	$2,499	$3,430	$3,038	$767		$10,483	-	-	-	$238	-	-	-	-	$238	-	$89	$660	$2,737	$3,430	$3,038	$767	-	$10,722	
12			**GIS Subtotal**	**62.0**	**85.1**	**64.2**	**12.2**	**0.0**	**223.6**	-	**$976**	**$7,233**	**$23,240**	**$37,155**	**$29,788**	**$5,789**	-	**$104,182**	-	-	-	**$1,171**	-	-	-	-	**$1,171**	-	**$976**	**$7,233**	**$24,411**	**$37,155**	**$29,788**	**$5,789**	-	**$105,353**	
13			**Base Forecast Total**	**211.7**	**240.9**	**177.9**	**216.2**	**76.8**	**923.6**	**$1,391**	**$6,729**	**$42,389**	**$89,815**	**$117,862**	**$92,703**	**$121,338**	**$44,635**	**$516,862**	-	-	-	**$7,520**	-	-	-	-	**$7,520**	**$1,391**	**$6,729**	**$42,389**	**$97,335**	**$117,862**	**$92,703**	**$121,338**	**$44,635**	**$524,382**	

Table 2: Contingencies

				Annual Staffing — No Adjustments						Adjustments - Capital Contingencies									Adjustments - Expense Contingencies									Adjustments - Total Contingencies									
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
14	ERP	Solution	Work and Asset Management										$3,291	$5,596	$5,499	$9,031	$2,280	$25,697	-	-	-	$366	-	-	-	-	$366	-	-	-	$3,657	$5,596	$5,499	$9,031	$2,280	$26,063	
15	ERP	Solution	Integrated Planning										$462	$445	$301	$441	$112	$1,761	-	-	-	-	-	-	-	-	-	-	-	-	$462	$445	$301	$441	$112	$1,761	
16	ERP	Solution	Finance										$1,432	$1,363	$1,366	$3,208	$2,160	$9,528	-	-	-	$159	-	-	-	-	$159	-	-	-	$1,591	$1,363	$1,366	$3,208	$2,160	$9,688	
17	ERP	Solution	Supply Chain										$1,400	$2,252	$2,408	$4,072	$1,148	$11,279	-	-	-	$156	-	-	-	-	$156	-	-	-	$1,555	$2,252	$2,408	$4,072	$1,148	$11,435	
18	ERP	Solution	Human Resources										$1,525	$1,101	$386	$1,341	$1,413	$5,766	-	-	-	$169	-	-	-	-	$169	-	-	-	$1,694	$1,101	$386	$1,341	$1,413	$5,935	
19	ERP	Solution	Enterprise Health & Safety										$743	$457	-	-	-	$1,200	-	-	-	$83	-	-	-	-	$83	-	-	-	$825	$457	-	-	-	$1,282	
20	ERP	Solution	Data & Analytics										$1,053	$910	$489	$951	$435	$3,839	-	-	-	$118	-	-	-	-	$118	-	-	-	$1,171	$910	$489	$951	$435	$3,957	
21	ERP	Solution	Development, Integration, & Solution Delivery										$3,410	$4,016	$2,135	$4,066	$1,379	$15,005	-	-	-	$220	-	-	-	-	$220	-	-	-	$3,630	$4,016	$2,135	$4,066	$1,379	$15,225	
22			**ERP Subtotal**										**$13,315**	**$16,141**	**$12,583**	**$23,110**	**$8,927**	**$74,076**	-	-	-	**$1,270**	-	-	-	-	**$1,270**	-	-	-	**$14,585**	**$16,141**	**$12,583**	**$23,110**	**$8,927**	**$75,346**	
23	GIS	Solution	Applications & Processes										$4,148	$6,745	$5,350	$1,004	-	$17,248	-	-	-	$187	-	-	-	-	$187	-	-	-	$4,335	$6,745	$5,350	$1,004	-	$17,434	
24	GIS	Solution	Data Migration & Conversion										$500	$686	$608	$153	-	$1,947	-	-	-	$48	-	-	-	-	$48	-	-	-	$547	$686	$608	$153	-	$1,995	
25			**GIS Subtotal**										**$4,648**	**$7,431**	**$5,958**	**$1,158**	-	**$19,194**	-	-	-	**$234**	-	-	-	-	**$234**	-	-	-	**$4,882**	**$7,431**	**$5,958**	**$1,158**	-	**$19,429**	
26			**Contingencies Total**	-	-	-	-	-	-	-	-	-	**$17,963**	**$23,572**	**$18,541**	**$24,268**	**$8,927**	**$93,270**	-	-	-	**$1,504**	-	-	-	-	**$1,504**	-	-	-	**$19,467**	**$23,572**	**$18,541**	**$24,268**	**$8,927**	**$94,774**	

Table 3: Meals and Travel

				Annual Staffing — No Adjustments						Adjustments - Meals and Travel Capital									Adjustments - Meals and Travel Expenses									Adjustments - Total Meals and Travel Expenses									
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
27	ERP	Solution	Work and Asset Management										$165	$280	$275	$452	$114	$1,285	-	-	-	$18	-	-	-	-	$18	-	-	-	$183	$280	$275	$452	$114	$1,303	
28	ERP	Solution	Integrated Planning										$23	$22	$15	$22	$6	$88	-	-	-	-	-	-	-	-	-	-	-	-	$23	$22	$15	$22	$6	$88	
29	ERP	Solution	Finance										$72	$68	$68	$160	$108	$476	-	-	-	$8	-	-	-	-	$8	-	-	-	$80	$68	$68	$160	$108	$484	
30	ERP	Solution	Supply Chain										$70	$113	$120	$204	$57	$564	-	-	-	$8	-	-	-	-	$8	-	-	-	$78	$113	$120	$204	$57	$572	
31	ERP	Solution	Human Resources										$76	$55	$19	$67	$71	$288	-	-	-	$8	-	-	-	-	$8	-	-	-	$85	$55	$19	$67	$71	$297	
32	ERP	Solution	Enterprise Health & Safety										$37	$23	-	-	-	$60	-	-	-	$4	-	-	-	-	$4	-	-	-	$41	$23	-	-	-	$64	
33	ERP	Solution	Data & Analytics										$53	$46	$24	$48	$22	$192	-	-	-	$6	-	-	-	-	$6	-	-	-	$59	$46	$24	$48	$22	$198	
34	ERP	Solution	Development, Integration, & Solution Delivery										$170	$201	$107	$203	$69	$750	-	-	-	$11	-	-	-	-	$11	-	-	-	$181	$201	$107	$203	$69	$761	
35			**ERP Subtotal**										**$666**	**$807**	**$629**	**$1,155**	**$446**	**$3,704**	-	-	-	**$63**	-	-	-	-	**$63**	-	-	-	**$729**	**$807**	**$629**	**$1,155**	**$446**	**$3,767**	
36	GIS	Solution	Applications & Processes										$207	$337	$267	$50	-	$862	-	-	-	$9	-	-	-	-	$9	-	-	-	$217	$337	$267	$50	-	$872	
37	GIS	Solution	Data Migration & Conversion										$25	$34	$30	$8	-	$97	-	-	-	$2	-	-	-	-	$2	-	-	-	$27	$34	$30	$8	-	$100	
38			**GIS Subtotal**										**$232**	**$372**	**$298**	**$58**	-	**$960**	-	-	-	**$12**	-	-	-	-	**$12**	-	-	-	**$244**	**$372**	**$298**	**$58**	-	**$971**	
39			**Meals and Travel Total**	-	-	-	-	-	-	-	-	-	**$898**	**$1,179**	**$927**	**$1,213**	**$446**	**$4,664**	-	-	-	**$75**	-	-	-	-	**$75**	-	-	-	**$973**	**$1,179**	**$927**	**$1,213**	**$446**	**$4,739**	

Table 4: Allowance for Funds Using During Construction (AFUDC)

				Annual Staffing — No Adjustments						Capital AFUDC									Expense AFUDC									Total AFUDC									
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
40	ERP	Solution	Work and Asset Management										$484	$1,857	$2,544	$3,455	$700	$9,040	-	-	-	-	-	-	-	-	-	-	-	-	$484	$1,857	$2,544	$3,455	$700	$9,040	
41	ERP	Solution	Integrated Planning										$77	$228	$100	$136	$27	$568	-	-	-	-	-	-	-	-	-	-	-	-	$77	$228	$100	$136	$27	$568	
42	ERP	Solution	Finance										$223	$687	$432	$1,028	$327	$2,697	-	-	-	-	-	-	-	-	-	-	-	-	$223	$687	$432	$1,028	$327	$2,697	
43	ERP	Solution	Supply Chain										$235	$852	$1,013	$1,389	$245	$3,734	-	-	-	-	-	-	-	-	-	-	-	-	$235	$852	$1,013	$1,389	$245	$3,734	
44	ERP	Solution	Human Resources										$186	$510	$69	$459	$183	$1,407	-	-	-	-	-	-	-	-	-	-	-	-	$186	$510	$69	$459	$183	$1,407	
45	ERP	Solution	Enterprise Health & Safety										$77	$207	-	-	-	$283	-	-	-	-	-	-	-	-	-	-	-	-	$77	$207	-	-	-	$283	
46	ERP	Solution	Data & Analytics										$94	$297	$211	$380	$109	$1,091	-	-	-	-	-	-	-	-	-	-	-	-	$94	$297	$211	$380	$109	$1,091	
47	ERP	Solution	Development, Integration, & Solution Delivery										$364	$1,189	$980	$1,550	$386	$4,469	-	-	-	-	-	-	-	-	-	-	-	-	$364	$1,189	$980	$1,550	$386	$4,469	
48			**ERP Subtotal**										**$1,740**	**$5,827**	**$5,350**	**$8,396**	**$1,977**	**$23,290**	-	-	-	-	-	-	-	-	-	-	-	-	**$1,740**	**$5,827**	**$5,350**	**$8,396**	**$1,977**	**$23,290**	
49	GIS	Solution	Applications & Processes										$1,686	$2,654	$2,415	$1,415	-	$8,170	-	-	-	-	-	-	-	-	-	-	-	-	$1,686	$2,654	$2,415	$1,415	-	$8,170	
50	GIS	Solution	Data Migration & Conversion										$179	$275	$257	$139	-	$851	-	-	-	-	-	-	-	-	-	-	-	-	$179	$275	$257	$139	-	$851	
51			**GIS Subtotal**										**$1,865**	**$2,929**	**$2,672**	**$1,555**	-	**$9,020**	-	-	-	-	-	-	-	-	-	-	-	-	**$1,865**	**$2,929**	**$2,672**	**$1,555**	-	**$9,020**	
52			**AFUDC Total**	-	-	-	-	-	-	-	-	-	**$3,605**	**$8,756**	**$8,022**	**$9,951**	**$1,977**	**$32,310**	-	-	-	-	-	-	-	-	-	-	-	-	**$3,605**	**$8,756**	**$8,022**	**$9,951**	**$1,977**	**$32,310**	

Solution Cost Group Workpaper Summary — PG&E Labor

PROGRAM	ERP & GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

Table 5: Other Adjustment (See Note 1 below)				Annual Staffing — No Adjustments						Other Capital Adjustments [1]								Other Expense Adjustments [1]									Other Total Adjustments [1]								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
53	ERP	Solution	Work and Asset Management										$3,399	-	-	-	-	$3,399	-	-	-	($2,212)	-	-	-	-	($2,212)	-	-	-	$1,187	-	-	-	-	$1,187	
54	ERP	Solution	Integrated Planning										$232	-	-	-	-	$232	-	-	-	-	-	-	-	-	-	-	-	-	$232	-	-	-	-	$232	
55	ERP	Solution	Finance										$1,247	-	-	-	-	$1,247	-	-	-	($962)	-	-	-	-	($962)	-	-	-	$285	-	-	-	-	$285	
56	ERP	Solution	Supply Chain										$1,487	-	-	-	-	$1,487	-	-	-	($941)	-	-	-	-	($941)	-	-	-	$546	-	-	-	-	$546	
57	ERP	Solution	Human Resources										$750	-	-	-	-	$750	-	-	-	($1,025)	-	-	-	-	($1,025)	-	-	-	($275)	-	-	-	-	($275)	
58	ERP	Solution	Enterprise Health & Safety										$156	-	-	-	-	$156	-	-	-	($499)	-	-	-	-	($499)	-	-	-	($343)	-	-	-	-	($343)	
59	ERP	Solution	Data & Analytics										$503	-	-	-	-	$503	-	-	-	($712)	-	-	-	-	($712)	-	-	-	($209)	-	-	-	-	($209)	
60	ERP	Solution	Development, Integration, & Solution Delivery										$1,968	-	-	-	-	$1,968	-	-	-	($1,330)	-	-	-	-	($1,330)	-	-	-	$638	-	-	-	-	$638	
61			**ERP Subtotal**										**$9,742**	-	-	-	-	**$9,742**	-	-	-	**($7,682)**	-	-	-	-	**($7,682)**	-	-	-	**$2,061**	-	-	-	-	**$2,061**	
62	GIS	Solution	Applications & Processes										$2,632	$170	$177	$12,811	-	$15,790	-	-	-	($1,129)	$769	$3,140	$1,687	-	$4,467	-	-	-	$1,503	$939	$3,317	$14,498	-	$20,257	
63	GIS	Solution	Data Migration & Conversion										$252				-	$252	-	-	-	($289)				-	($289)	-	-	-	($37)	-	-	-	-	($37)	
64			**GIS Subtotal**										**$2,884**	**$170**	**$177**	**$12,811**	-	**$16,042**	-	-	-	**($1,417)**	**$769**	**$3,140**	**$1,687**	-	**$4,179**	-	-	-	**$1,466**	**$939**	**$3,317**	**$14,498**	-	**$20,221**	
65			**Other Adjustments Total**	-	-	-	-	-	-	-	-	-	**$12,626**	**$170**	**$177**	**$12,811**	-	**$25,784**	-	-	-	**($9,099)**	**$769**	**$3,140**	**$1,687**	-	**($3,503)**	-	-	-	**$3,527**	**$939**	**$3,317**	**$14,498**	-	**$22,281**	

Table 6: Total Forecast				Annual Staffing (FTE)						Total Capital Forecast									Total Expense Forecast									Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
66	ERP	Solution	Work and Asset Management	37.2	53.1	49.1	78.8	19.6	237.9	$486	$2,007	$12,267	$23,795	$35,713	$35,812	$58,093	$14,493	$182,667	-	-	-	-	-	-	-	-	-	$486	$2,007	$12,267	$23,795	$35,713	$35,812	$58,093	$14,493	$182,667	
67	ERP	Solution	Integrated Planning	4.5	4.1	2.6	3.8	1.0	16.0	$33	$137	$837	$3,104	$2,923	$1,918	$2,801	$707	$12,460	-	-	-	-	-	-	-	-	-	$33	$137	$837	$3,104	$2,923	$1,918	$2,801	$707	$12,460	
68	ERP	Solution	Finance	16.3	13.1	12.3	28.1	18.3	88.1	$178	$736	$4,500	$10,132	$8,933	$8,695	$20,439	$13,394	$67,006	-	-	-	-	-	-	-	-	-	$178	$736	$4,500	$10,132	$8,933	$8,695	$20,439	$13,394	$67,006	
69	ERP	Solution	Supply Chain	15.8	21.4	21.6	35.6	9.9	104.3	$212	$878	$5,367	$10,191	$14,478	$15,582	$26,022	$7,189	$79,919	-	-	-	-	-	-	-	-	-	$212	$878	$5,367	$10,191	$14,478	$15,582	$26,022	$7,189	$79,919	
70	ERP	Solution	Human Resources	17.4	10.8	3.5	11.8	11.9	55.4	$107	$443	$2,706	$10,162	$7,171	$2,405	$8,575	$8,730	$40,298	-	-	-	-	-	-	-	-	-	$107	$443	$2,706	$10,162	$7,171	$2,405	$8,575	$8,730	$40,298	
71	ERP	Solution	Enterprise Health & Safety	8.4	4.5	-	-	-	12.9	$22	$92	$562	$4,725	$2,971	-	-	-	$8,373	-	-	-	-	-	-	-	-	-	$22	$92	$562	$4,725	$2,971	-	-	-	$8,373	
72	ERP	Solution	Data & Analytics	12.0	8.9	4.5	8.6	3.8	37.9	$72	$297	$1,813	$6,969	$5,805	$3,171	$6,133	$2,742	$27,003	-	-	-	-	-	-	-	-	-	$72	$297	$1,813	$6,969	$5,805	$3,171	$6,133	$2,742	$27,003	
73	ERP	Solution	Development, Integration, & Solution Delivery	38.3	39.9	19.9	37.2	12.3	147.6	$281	$1,162	$7,103	$22,961	$25,488	$13,894	$26,147	$8,730	$105,766	-	-	-	-	-	-	-	-	-	$281	$1,162	$7,103	$22,961	$25,488	$13,894	$26,147	$8,730	$105,766	
74			**ERP Subtotal**	**149.8**	**155.8**	**113.7**	**204.0**	**76.8**	**700.1**	**$1,391**	**$5,753**	**$35,156**	**$92,038**	**$103,482**	**$81,477**	**$148,210**	**$55,985**	**$523,493**	-	-	-	-	-	-	-	-	-	$1,391	$5,753	$35,156	$92,038	$103,482	$81,477	$148,210	$55,985	$523,493	
75	GIS	Solution	Applications & Processes	55.7	78.1	58.3	10.8	-	202.9	-	$887	$6,573	$29,414	$43,631	$34,960	$20,303	-	$135,768	-	-	-	-	$769	$3,140	$1,687	-	$5,596	-	$887	$6,573	$29,414	$44,401	$38,100	$21,990	-	$141,364	
76	GIS	Solution	Data Migration & Conversion	6.3	7.0	5.9	1.4	-	20.7	-	$89	$660	$3,455	$4,426	$3,933	$1,067	-	$13,630	-	-	-	-	-	-	-	-	-	-	$89	$660	$3,455	$4,426	$3,933	$1,067	-	$13,630	
77			**GIS Subtotal**	**62.0**	**85.1**	**64.2**	**12.2**	**-**	**1,281.7**	-	**$976**	**$7,233**	**$32,869**	**$48,057**	**$38,893**	**$21,370**	-	**$149,398**				-	**$769**	**$3,140**	**$1,687**	-	**$5,596**	-	**$976**	**$7,233**	**$32,869**	**$48,826**	**$42,033**	**$23,057**	-	**$154,994**	
78			**Solution Grand Total**	**211.7**	**240.9**	**177.9**	**216.2**	**76.8**	**1,981.8**	**$1,391**	**$6,729**	**$42,389**	**$124,907**	**$151,539**	**$120,370**	**$169,580**	**$55,985**	**$672,891**	-	-	-	-	**$769**	**$3,140**	**$1,687**	-	**$5,596**	**$1,391**	**$6,729**	**$42,389**	**$124,907**	**$152,309**	**$123,510**	**$171,267**	**$55,985**	**$678,487**	

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. For GIS, Other Adjustments may include Transformation, Remote Sensing, Data Storage, IT/Telecom, and Deployment Support costs developed based on holistic cost estimates. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-1C
Pacific Gas and Electric Company
ERP and GIS Transformation
Solution External / Systems Integrator Labor Summary Workpaper
Thousands of Dollars - Nominal

Solution Cost Group Workpaper Summary — External / Systems Integrator Labor

PROGRAM	ERP & GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Solution	Work and Asset Management	45.8	81.2	96.2	155.5	39.2	417.9	$491	$2,029	$12,403	$11,691	$24,098	$29,480	$48,422	$12,360	$140,975	-	-	-	$1,299	-	-	-	-	$1,299	$491	$2,029	$12,403	$12,990	$24,098	$29,480	$48,422	$12,360	$142,274
2	ERP	Solution	Integrated Planning	13.7	8.2	3.3	4.7	1.2	31.1	$51	$210	$1,285	$5,464	$3,354	$1,413	$2,072	$534	$14,384	-	-	-	-	-	-	-	-	-	$51	$210	$1,285	$5,464	$3,354	$1,413	$2,072	$534	$14,384
3	ERP	Solution	Finance	38.9	35.6	24.0	55.1	35.9	189.5	$234	$969	$5,921	$10,736	$11,303	$7,992	$18,713	$12,511	$68,379	-	-	-	$1,193	-	-	-	-	$1,193	$234	$969	$5,921	$11,928	$11,303	$7,992	$18,713	$12,511	$69,572
4	ERP	Solution	Supply Chain	36.8	49.9	45.5	75.3	21.1	228.6	$228	$945	$5,772	$8,064	$12,636	$11,978	$20,177	$5,739	$65,540	-	-	-	$896	-	-	-	-	$896	$228	$945	$5,772	$8,960	$12,636	$11,978	$20,177	$5,739	$66,436
5	ERP	Solution	Human Resources	37.1	23.8	8.5	28.6	29.1	127.1	$146	$603	$3,688	$9,532	$6,957	$2,666	$9,159	$9,529	$42,280	-	-	-	$1,059	-	-	-	-	$1,059	$146	$603	$3,688	$10,591	$6,957	$2,666	$9,159	$9,529	$43,339
6	ERP	Solution	Enterprise Health & Safety	12.1	4.1	-	-	-	16.2	$21	$86	$524	$3,817	$1,470	-	-	-	$5,917	-	-	-	$424	-	-	-	-	$424	$21	$86	$524	$4,241	$1,470	-	-	-	$6,342
7	ERP	Solution	Data & Analytics	50.1	42.8	43.1	82.3	36.7	254.9	$218	$901	$5,505	$9,580	$9,163	$9,623	$18,733	$8,549	$62,272	-	-	-	$839	-	-	-	-	$839	$218	$901	$5,505	$10,418	$9,163	$9,623	$18,733	$8,549	$63,111
8	ERP	Solution	Development, Integration, & Solution Delivery	69.2	140.5	94.2	184.1	60.6	548.6	$437	$1,805	$11,031	$14,709	$27,868	$19,491	$38,028	$12,969	$126,338	-	-	-	$470	-	-	-	-	$470	$437	$1,805	$11,031	$15,179	$27,868	$19,491	$38,028	$12,969	$126,808
9			**ERP Subtotal**	**303.7**	**386.0**	**315.0**	**585.7**	**223.6**	**1,814.0**	**$1,826**	**$7,548**	**$46,129**	**$73,693**	**$96,849**	**$82,644**	**$155,304**	**$62,192**	**$526,085**				**$6,180**					**$6,180**	**$1,826**	**$7,548**	**$46,129**	**$79,772**	**$96,849**	**$82,644**	**$155,304**	**$62,192**	**$532,264**
10	GIS		Applications & Processes	70.3	108.6	88.2	20.9	-	288.0		$1,122	$8,310	$20,381	$25,518	$21,444	$5,217	-	$81,991	-	-	-	$1,549	-	-	-	-	$1,549	-	$1,122	$8,310	$21,930	$25,518	$21,444	$5,217	-	$83,541
11	GIS	Solution	Data Migration & Conversion	32.9	53.4	36.0	7.8	-	130.1		$277	$2,052	$7,017	$11,282	$8,515	$1,956	-	$31,098	-	-	-	$1,238	-	-	-	-	$1,238	-	$277	$2,052	$8,255	$11,282	$8,515	$1,956	-	$32,336
12			**GIS Subtotal**	**103.2**	**162.0**	**124.3**	**28.7**	**-**	**418.2**	**-**	**$1,399**	**$10,362**	**$27,398**	**$36,800**	**$29,958**	**$7,173**	**-**	**$113,090**				**$2,788**					**$2,788**	**-**	**$1,399**	**$10,362**	**$30,185**	**$36,800**	**$29,958**	**$7,173**	**-**	**$115,877**
13			**Base Forecast Total**	**406.9**	**548.0**	**439.2**	**614.4**	**223.6**	**2,232.2**	**$1,826**	**$8,947**	**$56,491**	**$100,990**	**$133,649**	**$112,602**	**$162,477**	**$62,192**	**$639,174**				**$8,967**					**$8,967**	**$1,826**	**$8,947**	**$56,491**	**$109,958**	**$133,649**	**$112,602**	**$162,477**	**$62,192**	**$648,142**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
14	ERP	Solution	Work and Asset Management										$2,338	$4,820	$5,896	$9,684	$2,472	$25,210	-	-	-	$260	-	-	-	-	$260	-	-	-	$2,598	$4,820	$5,896	$9,684	$2,472	$25,470
15	ERP	Solution	Integrated Planning										$1,093	$671	$283	$414	$107	$2,568	-	-	-	-	-	-	-	-	-	-	-	-	$1,093	$671	$283	$414	$107	$2,568
16	ERP	Solution	Finance										$2,147	$2,261	$1,598	$3,743	$2,502	$12,251	-	-	-	$239	-	-	-	-	$239	-	-	-	$2,386	$2,261	$1,598	$3,743	$2,502	$12,490
17	ERP	Solution	Supply Chain										$1,613	$2,527	$2,396	$4,035	$1,148	$11,719	-	-	-	$179	-	-	-	-	$179	-	-	-	$1,792	$2,527	$2,396	$4,035	$1,148	$11,898
18	ERP	Solution	Human Resources										$1,906	$1,391	$533	$1,832	$1,906	$7,569	-	-	-	$212	-	-	-	-	$212	-	-	-	$2,118	$1,391	$533	$1,832	$1,906	$7,780
19	ERP	Solution	Enterprise Health & Safety										$763	$294	-	-	-	$1,057	-	-	-	$85	-	-	-	-	$85	-	-	-	$848	$294	-	-	-	$1,142
20	ERP	Solution	Data & Analytics										$1,916	$1,833	$1,925	$3,747	$1,710	$11,130	-	-	-	$168	-	-	-	-	$168	-	-	-	$2,084	$1,833	$1,925	$3,747	$1,710	$11,297
21	ERP	Solution	Development, Integration, & Solution Delivery										$2,942	$5,574	$3,898	$7,606	$2,594	$22,613	-	-	-	$94	-	-	-	-	$94	-	-	-	$3,036	$5,574	$3,898	$7,606	$2,594	$22,707
22			**ERP Subtotal**										**$14,719**	**$19,370**	**$16,529**	**$31,061**	**$12,438**	**$94,116**	-	-	-	**$1,236**	-	-	-	-	**$1,236**	-	-	-	**$15,954**	**$19,370**	**$16,529**	**$31,061**	**$12,438**	**$95,352**
23	GIS	Solution	Applications & Processes										$4,076	$5,104	$4,289	$1,043	-	$14,512	-	-	-	$310	-	-	-	-	$310	-	-	-	$4,386	$5,104	$4,289	$1,043	-	$14,822
24	GIS	Solution	Data Migration & Conversion										$1,403	$2,256	$1,703	$391	-	$5,754	-	-	-	$248	-	-	-	-	$248	-	-	-	$1,651	$2,256	$1,703	$391	-	$6,002
25			**GIS Subtotal**										**$5,480**	**$7,360**	**$5,992**	**$1,435**	-	**$20,266**	-	-	-	**$558**	-	-	-	-	**$558**	-	-	-	**$6,037**	**$7,360**	**$5,992**	**$1,435**	-	**$20,823**
26			**Contingencies Total**	-	-	-	-	-	-	-	-	-	**$20,198**	**$26,730**	**$22,520**	**$32,495**	**$12,438**	**$114,382**	-	-	-	**$1,793**	-	-	-	-	**$1,793**	-	-	-	**$21,992**	**$26,730**	**$22,520**	**$32,495**	**$12,438**	**$116,176**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
27	ERP	Solution	Work and Asset Management										$562	$1,150	$1,677	$2,755	$703	$6,848	-	-	-	$62	-	-	-	-	$62	-	-	-	$624	$1,150	$1,677	$2,755	$703	$6,910
28	ERP	Solution	Integrated Planning										$481	$295	$124	$182	$47	$1,130	-	-	-	-	-	-	-	-	-	-	-	-	$481	$295	$124	$182	$47	$1,130
29	ERP	Solution	Finance										$445	$319	$342	$802	$536	$2,444	-	-	-	$49	-	-	-	-	$49	-	-	-	$494	$319	$342	$802	$536	$2,494
30	ERP	Solution	Supply Chain										$427	$641	$671	$1,130	$321	$3,190	-	-	-	$47	-	-	-	-	$47	-	-	-	$475	$641	$671	$1,130	$321	$3,237
31	ERP	Solution	Human Resources										$527	$308	$168	$577	$600	$2,180	-	-	-	$59	-	-	-	-	$59	-	-	-	$585	$308	$168	$577	$600	$2,238
32	ERP	Solution	Enterprise Health & Safety										$317	$122	-	-	-	$439	-	-	-	$35	-	-	-	-	$35	-	-	-	$353	$122	-	-	-	$475
33	ERP	Solution	Data & Analytics										$632	$606	$637	$1,238	$564	$3,677	-	-	-	$60	-	-	-	-	$60	-	-	-	$692	$606	$637	$1,238	$564	$3,737
34	ERP	Solution	Development, Integration, & Solution Delivery										$731	$1,136	$879	$1,672	$580	$4,999	-	-	-	$40	-	-	-	-	$40	-	-	-	$772	$1,136	$879	$1,672	$580	$5,039
35			**ERP Subtotal**										**$4,123**	**$4,579**	**$4,499**	**$8,356**	**$3,352**	**$24,908**	-	-	-	**$353**	-	-	-	-	**$353**	-	-	-	**$4,476**	**$4,579**	**$4,499**	**$8,356**	**$3,352**	**$25,261**
36	GIS	Solution	Applications & Processes										$1,508	$1,865	$1,572	$383	-	$5,328	-	-	-	$127	-	-	-	-	$127	-	-	-	$1,635	$1,865	$1,572	$383	-	$5,455
37	GIS	Solution	Data Migration & Conversion										$468	$796	$643	$152	-	$2,058	-	-	-	$83	-	-	-	-	$83	-	-	-	$550	$796	$643	$152	-	$2,141
38			**GIS Subtotal**										**$1,976**	**$2,660**	**$2,215**	**$535**	-	**$7,386**				**$209**	-	-	-	-	**$209**	-	-	-	**$2,185**	**$2,660**	**$2,215**	**$535**	-	**$7,596**
39			**Meals and Travel Total**	-	-	-	-	-	-	-	-	-	**$6,099**	**$7,239**	**$6,714**	**$8,890**	**$3,352**	**$32,294**	-	-	-	**$563**	-	-	-	-	**$563**	-	-	-	**$6,661**	**$7,239**	**$6,714**	**$8,890**	**$3,352**	**$32,856**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
40	ERP	Solution	Work and Asset Management										$440	$1,688	$2,312	$3,140	$636	$8,216	-	-	-	-	-	-	-	-	-	-	-	-	$440	$1,688	$2,312	$3,140	$636	$8,216
41	ERP	Solution	Integrated Planning										$94	$280	$122	$166	$34	$696	-	-	-	-	-	-	-	-	-	-	-	-	$94	$280	$122	$166	$34	$696
42	ERP	Solution	Finance										$286	$879	$552	$1,313	$417	$3,447	-	-	-	-	-	-	-	-	-	-	-	-	$286	$879	$552	$1,313	$417	$3,447
43	ERP	Solution	Supply Chain										$246	$890	$1,059	$1,452	$256	$3,903	-	-	-	-	-	-	-	-	-	-	-	-	$246	$890	$1,059	$1,452	$256	$3,903
44	ERP	Solution	Human Resources										$246	$674	$92	$608	$242	$1,862	-	-	-	-	-	-	-	-	-	-	-	-	$246	$674	$92	$608	$242	$1,862
45	ERP	Solution	Enterprise Health & Safety										$68	$182	-	-	-	$250	-	-	-	-	-	-	-	-	-	-	-	-	$68	$182	-	-	-	$250
46	ERP	Solution	Data & Analytics										$289	$915	$655	$1,176	$338	$3,372	-	-	-	-	-	-	-	-	-	-	-	-	$289	$915	$655	$1,176	$338	$3,372
47	ERP	Solution	Development, Integration, & Solution Delivery										$502	$1,710	$1,675	$2,677	$693	$7,257	-	-	-	-	-	-	-	-	-	-	-	-	$502	$1,710	$1,675	$2,677	$693	$7,257
48			**ERP Subtotal**										**$2,170**	**$7,218**	**$6,467**	**$10,532**	**$2,617**	**$29,003**	-	-	-	-	-	-	-	-	-	-	-	-	**$2,170**	**$7,218**	**$6,467**	**$10,532**	**$2,617**	**$29,003**
49	GIS	Solution	Applications & Processes										$1,850	$2,707	$2,528	$1,756	-	$8,840	-	-	-	-	-	-	-	-	-	-	-	-	$1,850	$2,707	$2,528	$1,756	-	$8,840
50	GIS	Solution	Data Migration & Conversion										$539	$893	$813	$436	-	$2,681	-	-	-	-	-	-	-	-	-	-	-	-	$539	$893	$813	$436	-	$2,681
51			**GIS Subtotal**										**$2,389**	**$3,600**	**$3,341**	**$2,192**	-	**$11,521**				-	-	-	-	-	-	-	-	-	**$2,389**	**$3,600**	**$3,341**	**$2,192**	-	**$11,521**
52			**AFUDC Total**	-	-	-	-	-	-	-	-	-	**$4,559**	**$10,817**	**$9,809**	**$12,723**	**$2,617**	**$40,524**	-	-	-	-	-	-	-	-	-	-	-	-	**$4,559**	**$10,817**	**$9,809**	**$12,723**	**$2,617**	**$40,524**

Solution Cost Group Workpaper Summary — External / Systems Integrator Labor

PROGRAM	ERP & GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

Table 5: Other Adjustment (See Note 1 below)				Annual Staffing — No Adjustments						Other Capital Adjustments [1]								Other Expense Adjustments [1]									Other Total Adjustments [1]								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
53	ERP	Solution	Work and Asset Management										$3,437	-	-	-	-	$3,437	-	-	-	($1,621)	-	-	-	-	($1,621)	-	-	-	$1,816	-	-	-	-	$1,816
54	ERP	Solution	Integrated Planning										$356	-	-	-	-	$356	-	-	-	-	-	-	-	-	-	-	-	-	$356	-	-	-	-	$356
55	ERP	Solution	Finance										$1,641	-	-	-	-	$1,641	-	-	-	($1,481)	-	-	-	-	($1,481)	-	-	-	$160	-	-	-	-	$160
56	ERP	Solution	Supply Chain										$1,600	-	-	-	-	$1,600	-	-	-	($1,123)	-	-	-	-	($1,123)	-	-	-	$477	-	-	-	-	$477
57	ERP	Solution	Human Resources										$1,022	-	-	-	-	$1,022	-	-	-	($1,330)	-	-	-	-	($1,330)	-	-	-	($308)	-	-	-	-	($308)
58	ERP	Solution	Enterprise Health & Safety										$145	-	-	-	-	$145	-	-	-	($544)	-	-	-	-	($544)	-	-	-	($399)	-	-	-	-	($399)
59	ERP	Solution	Data & Analytics										$1,526	-	-	-	-	$1,526	-	-	-	($1,066)	-	-	-	-	($1,066)	-	-	-	$459	-	-	-	-	$459
60	ERP	Solution	Development, Integration, & Solution Delivery										$3,057	-	-	-	-	$3,057	-	-	-	($604)	-	-	-	-	($604)	-	-	-	$2,453	-	-	-	-	$2,453
61			**ERP Subtotal**										**$12,783**	-	-	-	-	**$12,783**	-	-	-	**($7,769)**	-	-	-	-	**($7,769)**	-	-	-	**$5,014**	-	-	-	-	**$5,014**
62	GIS	Solution	Applications & Processes										$7,585	$5,863	$8,692	$38,826	-	$60,965	-	-	-	($1,986)	$3,154	$2,379	$3,521	$4,914	$11,982	-	-	-	$5,598	$9,017	$11,071	$42,347	$4,914	$72,948
63	GIS	Solution	Data Migration & Conversion										$783	-	-	-	-	$783	-	-	-	($1,568)	-	-	-	-	($1,568)	-	-	-	($785)	-	-	-	-	($785)
64			**GIS Subtotal**										**$8,368**	**$5,863**	**$8,692**	**$38,826**	-	**$61,749**				**($3,555)**	**$3,154**	**$2,379**	**$3,521**	**$4,914**	**$10,414**	-	-	-	**$4,813**	**$9,017**	**$11,071**	**$42,347**	**$4,914**	**$72,163**
65			**Other Adjustments Total**	-	-	-	-	-	-	-	-	-	**$21,151**	**$5,863**	**$8,692**	**$38,826**	-	**$74,532**	-	-	-	**($11,324)**	**$3,154**	**$2,379**	**$3,521**	**$4,914**	**$2,645**	-	-	-	**$9,828**	**$9,017**	**$11,071**	**$42,347**	**$4,914**	**$77,177**

Table 6: Total Forecast				Annual Staffing (FTE)						Total Capital Forecast									Total Expense Forecast									Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
66	ERP	Solution	Work and Asset Management	45.8	81.2	96.2	155.5	39.2	417.9	$491	$2,029	$12,403	$18,468	$31,755	$39,366	$64,002	$16,171	$184,686	-	-	-	-	-	-	-	-	-	$491	$2,029	$12,403	$18,468	$31,755	$39,366	$64,002	$16,171	$184,686
67	ERP	Solution	Integrated Planning	13.7	8.2	3.3	4.7	1.2	31.1	$51	$210	$1,285	$7,489	$4,599	$1,943	$2,835	$722	$19,134	-	-	-	-	-	-	-	-	-	$51	$210	$1,285	$7,489	$4,599	$1,943	$2,835	$722	$19,134
68	ERP	Solution	Finance	38.9	35.6	24.0	55.1	35.9	189.5	$234	$969	$5,921	$15,254	$14,761	$10,485	$24,571	$15,967	$88,162	-	-	-	-	-	-	-	-	-	$234	$969	$5,921	$15,254	$14,761	$10,485	$24,571	$15,967	$88,162
69	ERP	Solution	Supply Chain	36.8	49.9	45.5	75.3	21.1	228.6	$228	$945	$5,772	$11,950	$16,695	$16,103	$26,794	$7,465	$85,951	-	-	-	-	-	-	-	-	-	$228	$945	$5,772	$11,950	$16,695	$16,103	$26,794	$7,465	$85,951
70	ERP	Solution	Human Resources	37.1	23.8	8.5	28.6	29.1	127.1	$146	$603	$3,688	$13,234	$9,331	$3,459	$12,175	$12,276	$54,912	-	-	-	-	-	-	-	-	-	$146	$603	$3,688	$13,234	$9,331	$3,459	$12,175	$12,276	$54,912
71	ERP	Solution	Enterprise Health & Safety	12.1	4.1	-	-	-	16.2	$21	$86	$524	$5,110	$2,068	-	-	-	$7,809	-	-	-	-	-	-	-	-	-	$21	$86	$524	$5,110	$2,068	-	-	-	$7,809
72	ERP	Solution	Data & Analytics	50.1	42.8	43.1	82.3	36.7	254.9	$218	$901	$5,505	$13,942	$12,517	$12,839	$24,894	$11,161	$81,977	-	-	-	-	-	-	-	-	-	$218	$901	$5,505	$13,942	$12,517	$12,839	$24,894	$11,161	$81,977
73	ERP	Solution	Development, Integration, & Solution Delivery	69.2	140.5	94.2	184.1	60.6	548.6	$437	$1,805	$11,031	$21,941	$36,289	$25,944	$49,982	$16,836	$164,264	-	-	-	-	-	-	-	-	-	$437	$1,805	$11,031	$21,941	$36,289	$25,944	$49,982	$16,836	$164,264
74			**ERP Subtotal**	**303.7**	**386.0**	**315.0**	**585.7**	**223.6**	**1,814.0**	**$1,826**	**$7,548**	**$46,129**	**$107,387**	**$128,015**	**$110,139**	**$205,252**	**$80,599**	**$686,895**	-	-	-	-	-	-	-	-	**$0**	**$1,826**	**$7,548**	**$46,129**	**$107,387**	**$128,015**	**$110,139**	**$205,252**	**$80,599**	**$686,895**
75	GIS	Solution	Applications & Processes	70.3	108.6	88.2	20.9	-	288.0	-	$1,122	$8,310	$35,400	$41,056	$38,524	$47,226	-	$171,637	-	-	-	-	$3,154	$2,379	$3,521	$4,914	$13,968	-	$1,122	$8,310	$35,400	$44,210	$40,903	$50,747	$4,914	$185,606
76	GIS	Solution	Data Migration & Conversion	32.9	53.4	36.0	7.8	-	130.1	-	$277	$2,052	$10,210	$15,227	$11,674	$2,935	-	$42,374	-	-	-	-	-	-	-	-	-	-	$277	$2,052	$10,210	$15,227	$11,674	$2,935	-	$42,374
77			**GIS Subtotal**	**103.2**	**162.0**	**124.3**	**28.7**	**-**	**418.2**	**-**	**$1,399**	**$10,362**	**$45,610**	**$56,283**	**$50,198**	**$50,160**	**-**	**$214,012**	-	-	-	-	**$3,154**	**$2,379**	**$3,521**	**$4,914**	**$13,968**	-	**$1,399**	**$10,362**	**$45,610**	**$59,437**	**$52,577**	**$53,682**	**$4,914**	**$227,980**
78			**Solution Grand Total**	**406.9**	**548.0**	**439.2**	**614.4**	**223.6**	**2,232.2**	**$1,826**	**$8,947**	**$56,491**	**$152,997**	**$184,298**	**$160,337**	**$255,413**	**$80,599**	**$900,907**	-	-	-	-	**$3,154**	**$2,379**	**$3,521**	**$4,914**	**$13,968**	**$1,826**	**$8,947**	**$56,491**	**$152,997**	**$187,452**	**$162,716**	**$258,934**	**$85,513**	**$914,875**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. For GIS, Other Adjustments may include Transformation, Remote Sensing, Data Storage, IT/Telecom, and Deployment Support costs developed based on holistic cost estimates. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-1D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

ERP - Solution PG&E Labor					(A) Staffing Rate $/HR						(B) Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Resource Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Solution	Data & Analytics	Business Analyst	PG&E Labor	$275	$288	$316	$324	$334	$287	4.4	2.9	0.4	0.7	0.3	8.6
2	Solution	Data & Analytics	Business Lead	PG&E Labor	$276	$290	$316	$324	$334	$290	2.4	1.6	0.3	0.5	0.2	4.9
3	Solution	Data & Analytics	Developer	PG&E Labor	$257	$276	$296	$303	$313	$290	0.3	0.2	0.2	0.4	0.2	1.3
4	Solution	Data & Analytics	IT Analyst	PG&E Labor	$263	$279	$296	$303	$313	$291	1.6	1.3	1.2	2.3	1.0	7.4
5	Solution	Data & Analytics	IT Architect	PG&E Labor	$270	$282	$296	$303	$313	$291	0.9	0.8	0.6	1.1	0.5	3.9
6	Solution	Data & Analytics	IT Lead	PG&E Labor	$265	$280	$296	$303	$313	$291	2.0	1.7	1.5	2.8	1.2	9.2
7	Solution	Data & Analytics	IT Manager	PG&E Labor	$257	$276	$296	$303	$313	$290	0.2	0.2	0.2	0.4	0.2	1.2
8	Solution	Data & Analytics	Solution Architect	PG&E Labor	$257	$276	$296	$303	$313	$290	0.3	0.2	0.2	0.4	0.2	1.3
9		**Data & Analytics Subtotal**									**12.0**	**8.9**	**4.5**	**8.6**	**3.8**	**37.9**
10	Solution	Development, Integration, & Solution Delivery	Admin Support	PG&E Labor	$265	$281	$296	$302	$311	$290	9.0	11.9	7.4	14.2	4.9	47.4
11	Solution	Development, Integration, & Solution Delivery	Business Consultant	PG&E Labor	$278	$290	$0	$0	$0	$283	0.9	0.6	-	-	-	1.5
12	Solution	Development, Integration, & Solution Delivery	Business Manager	PG&E Labor	$278	$295	$316	$328	$339	$305	1.7	1.5	1.2	1.4	0.4	6.1
13	Solution	Development, Integration, & Solution Delivery	Developer	PG&E Labor	$261	$281	$296	$302	$311	$292	2.8	6.6	4.2	8.5	2.8	24.8
14	Solution	Development, Integration, & Solution Delivery	IT Analyst	PG&E Labor	$261	$281	$296	$302	$311	$292	0.9	2.1	1.4	2.8	0.9	8.1
15	Solution	Development, Integration, & Solution Delivery	IT Architect	PG&E Labor	$261	$281	$296	$302	$311	$292	0.2	0.4	0.2	0.5	0.2	1.4
16	Solution	Development, Integration, & Solution Delivery	IT Lead	PG&E Labor	$263	$279	$296	$302	$311	$286	5.4	5.8	3.0	5.7	1.9	21.7
17	Solution	Development, Integration, & Solution Delivery	IT Manager	PG&E Labor	$261	$277	$296	$303	$312	$279	5.8	4.3	1.4	2.5	0.8	14.9
18	Solution	Development, Integration, & Solution Delivery	Product Owner	PG&E Labor	$261	$275	$296	$304	$313	$272	10.0	5.8	1.1	1.7	0.5	19.0
19	Solution	Development, Integration, & Solution Delivery	Solution Architect	PG&E Labor	$261	$274	$296	$307	$317	$269	1.5	0.8	0.1	0.1	0.0	2.6
20		**Development, Integration, & Solution Delivery Subtotal**									**38.3**	**39.9**	**19.9**	**37.2**	**12.3**	**147.6**
21	Solution	Enterprise Health & Safety	Business Analyst	PG&E Labor	$278	$290	$0	$0	$0	$282	3.4	1.7	-	-	-	5.1
22	Solution	Enterprise Health & Safety	Business Lead	PG&E Labor	$278	$290	$0	$0	$0	$282	2.0	1.0	-	-	-	3.0
23	Solution	Enterprise Health & Safety	Business Manager	PG&E Labor	$278	$290	$0	$0	$0	$282	0.3	0.2	-	-	-	0.5
24	Solution	Enterprise Health & Safety	IT Analyst	PG&E Labor	$261	$273	$0	$0	$0	$266	1.1	0.6	-	-	-	1.7
25	Solution	Enterprise Health & Safety	IT Lead	PG&E Labor	$261	$273	$0	$0	$0	$266	1.6	1.0	-	-	-	2.6
26		**Enterprise Health & Safety Subtotal**									**8.4**	**4.5**	-	-	-	**12.9**
27	Solution	Finance	Admin Support	PG&E Labor	$278	$295	$316	$325	$337	$313	0.4	0.3	0.3	0.6	0.4	1.9
28	Solution	Finance	Business Analyst	PG&E Labor	$278	$295	$316	$325	$337	$313	4.6	3.7	3.3	7.6	4.9	24.2
29	Solution	Finance	Business Lead	PG&E Labor	$278	$295	$316	$325	$337	$313	3.5	2.8	2.6	5.8	3.8	18.5
30	Solution	Finance	Business Manager	PG&E Labor	$278	$295	$316	$325	$337	$313	0.4	0.3	0.3	0.6	0.4	1.9
31	Solution	Finance	Consultant	PG&E Labor	$261	$278	$296	$304	$315	$294	0.5	0.4	0.4	0.9	0.6	2.8
32	Solution	Finance	IT Analyst	PG&E Labor	$261	$278	$296	$304	$315	$294	4.8	3.9	3.9	8.9	5.8	27.3
33	Solution	Finance	IT Lead	PG&E Labor	$261	$278	$296	$304	$315	$294	0.5	0.4	0.4	0.9	0.6	2.8
34	Solution	Finance	Product Owner	PG&E Labor	$278	$295	$316	$325	$337	$313	1.4	1.1	1.0	2.3	1.5	7.3
35	Solution	Finance	Solution Architect	PG&E Labor	$261	$278	$296	$304	$315	$294	0.2	0.2	0.2	0.5	0.3	1.4
36		**Finance Subtotal**									**16.3**	**13.1**	**12.3**	**28.1**	**18.3**	**88.1**
37	Solution	Human Resources	Admin Support	PG&E Labor	$0	$0	$0	$0	$0	$0	-	-	-	-	-	-
38	Solution	Human Resources	Business Analyst	PG&E Labor	$274	$286	$309	$320	$332	$301	4.0	2.5	0.8	2.7	2.7	12.7
39	Solution	Human Resources	Business Lead	PG&E Labor	$278	$291	$315	$327	$339	$306	4.1	2.5	0.8	2.6	2.6	12.5
40	Solution	Human Resources	Business Manager	PG&E Labor	$278	$291	$315	$327	$339	$306	0.6	0.4	0.1	0.4	0.4	1.9
41	Solution	Human Resources	IT Analyst	PG&E Labor	$261	$273	$295	$306	$317	$288	0.4	0.2	0.1	0.3	0.3	1.2
42	Solution	Human Resources	IT Lead	PG&E Labor	$261	$273	$295	$306	$317	$288	6.3	4.0	1.4	4.6	4.7	21.0
43	Solution	Human Resources	Product Owner	PG&E Labor	$278	$291	$315	$327	$339	$306	2.0	1.2	0.4	1.3	1.3	6.1
44		**Human Resources Subtotal**									**17.4**	**10.8**	**3.5**	**11.8**	**11.9**	**55.4**
45	Solution	Integrated Planning	Business Analyst	PG&E Labor	$288	$301	$316	$324	$328	$307	1.5	1.4	0.9	1.3	0.3	5.4
46	Solution	Integrated Planning	Business Lead	PG&E Labor	$288	$301	$316	$324	$328	$307	1.0	0.9	0.6	0.8	0.2	3.5
47	Solution	Integrated Planning	Business Manager	PG&E Labor	$288	$301	$316	$324	$328	$307	1.8	1.6	1.0	1.5	0.4	6.3
48	Solution	Integrated Planning	IT Lead	PG&E Labor	$270	$282	$296	$303	$307	$288	0.2	0.2	0.1	0.2	0.0	0.8
49		**Integrated Planning Subtotal**									**4.5**	**4.1**	**2.6**	**3.8**	**1.0**	**16.0**
50	Solution	Supply Chain	Business Analyst	PG&E Labor	$278	$297	$316	$325	$331	$310	8.4	10.9	10.3	17.0	4.7	51.3
51	Solution	Supply Chain	Business Lead	PG&E Labor	$278	$297	$316	$325	$331	$310	2.2	2.9	2.7	4.5	1.2	13.6
52	Solution	Supply Chain	Business Manager	PG&E Labor	$278	$297	$316	$325	$331	$310	0.5	0.6	0.6	0.9	0.3	2.8
53	Solution	Supply Chain	IT Analyst	PG&E Labor	$261	$280	$296	$304	$310	$293	3.1	4.6	5.3	8.8	2.4	24.3
54	Solution	Supply Chain	IT Architect	PG&E Labor	$261	$280	$296	$304	$310	$293	0.6	0.9	1.1	1.7	0.5	4.8
55	Solution	Supply Chain	IT Lead	PG&E Labor	$261	$280	$296	$304	$310	$293	0.6	0.9	1.1	1.8	0.5	4.9
56	Solution	Supply Chain	Product Owner	PG&E Labor	$278	$297	$316	$325	$331	$310	0.4	0.6	0.5	0.9	0.2	2.6
57		**Supply Chain Subtotal**									**15.8**	**21.4**	**21.6**	**35.6**	**9.9**	**104.3**
58	Solution	Work and Asset Management	Business Analyst	PG&E Labor	$275	$294	$313	$320	$324	$306	25.3	36.4	33.7	54.1	13.5	163.1
59	Solution	Work and Asset Management	Business Lead	PG&E Labor	$278	$298	$316	$324	$328	$310	5.1	7.6	7.0	11.3	2.8	33.8
60	Solution	Work and Asset Management	Business Manager	PG&E Labor	$278	$298	$316	$324	$328	$310	1.2	1.8	1.7	2.7	0.7	8.1
61	Solution	Work and Asset Management	IT Analyst	PG&E Labor	$261	$279	$296	$303	$307	$290	3.2	4.2	3.8	6.1	1.5	18.8
62	Solution	Work and Asset Management	IT Lead	PG&E Labor	$261	$279	$296	$303	$307	$290	2.4	3.1	2.9	4.6	1.1	14.1
63		**Work and Asset Management Subtotal**									**37.2**	**53.1**	**49.1**	**78.8**	**19.6**	**237.9**
64			**FTE Subtotal**	**PG&E Labor**							**149.8**	**155.8**	**113.7**	**204.0**	**76.8**	**700.1**

Workpaper 3-1D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(C) Capital Hours						(D) = (A) * (C) Capital Forecast						
ERP - Solution PG&E Labor																	
Line No.	**Cost Group**	**Workstream**	**Resource**	**Resource Type**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
65	Solution	Data & Analytics	Business Analyst	PG&E Labor	6,871	5,205	636	1,205	533	14,450	$1,890	$1,498	$201	$390	$178	$4,157
66	Solution	Data & Analytics	Business Lead	PG&E Labor	3,756	2,842	452	860	384	8,294	$1,039	$823	$143	$279	$128	$2,412
67	Solution	Data & Analytics	Developer	PG&E Labor	408	380	423	794	346	2,352	$105	$105	$125	$241	$108	$684
68	Solution	Data & Analytics	IT Analyst	PG&E Labor	2,604	2,359	2,167	4,107	1,819	13,056	$687	$659	$642	$1,246	$568	$3,802
69	Solution	Data & Analytics	IT Architect	PG&E Labor	1,613	1,426	1,050	2,018	912	7,019	$435	$402	$311	$612	$285	$2,045
70	Solution	Data & Analytics	IT Lead	PG&E Labor	3,425	3,078	2,648	5,037	2,243	16,431	$910	$863	$784	$1,528	$701	$4,786
71	Solution	Data & Analytics	IT Manager	PG&E Labor	373	347	386	725	316	2,147	$96	$96	$114	$220	$99	$625
72	Solution	Data & Analytics	Solution Architect	PG&E Labor	408	380	423	794	346	2,352	$105	$105	$125	$241	$108	$684
73		**Data & Analytics Subtotal**			**19,458**	**16,017**	**8,186**	**15,540**	**6,900**	**66,100**	**$5,266**	**$4,552**	**$2,446**	**$4,755**	**$2,176**	**$19,196**
74	Solution	Development, Integration, & Solution Delivery	Admin Support	PG&E Labor	15,848	21,481	13,303	25,508	8,757	84,896	$4,197	$6,032	$3,939	$7,713	$2,722	$24,603
75	Solution	Development, Integration, & Solution Delivery	Business Consultant	PG&E Labor	1,620	1,095	-	-	-	2,716	$451	$318	-	-	-	$769
76	Solution	Development, Integration, & Solution Delivery	Business Manager	PG&E Labor	2,694	2,681	2,224	2,495	672	10,766	$749	$792	$703	$818	$228	$3,290
77	Solution	Development, Integration, & Solution Delivery	Developer	PG&E Labor	5,083	11,906	7,489	15,261	4,976	44,714	$1,328	$3,348	$2,217	$4,609	$1,546	$13,048
78	Solution	Development, Integration, & Solution Delivery	IT Analyst	PG&E Labor	1,651	3,866	2,432	4,956	1,616	14,520	$431	$1,087	$720	$1,497	$502	$4,237
79	Solution	Development, Integration, & Solution Delivery	IT Architect	PG&E Labor	289	678	426	869	283	2,545	$76	$191	$126	$262	$88	$743
80	Solution	Development, Integration, & Solution Delivery	IT Lead	PG&E Labor	9,210	10,434	5,325	10,171	3,406	38,546	$2,421	$2,914	$1,577	$3,076	$1,059	$11,046
81	Solution	Development, Integration, & Solution Delivery	IT Manager	PG&E Labor	9,534	7,798	2,525	4,581	1,454	25,892	$2,491	$2,156	$747	$1,387	$453	$7,235
82	Solution	Development, Integration, & Solution Delivery	Product Owner	PG&E Labor	16,279	10,382	1,986	2,971	894	32,512	$4,254	$2,850	$588	$904	$280	$8,876
83	Solution	Development, Integration, & Solution Delivery	Solution Architect	PG&E Labor	2,487	1,438	186	209	56	4,375	$650	$393	$55	$64	$18	$1,180
84		**Development, Integration, & Solution Delivery Subtotal**			**64,694**	**71,758**	**35,896**	**67,019**	**22,114**	**261,482**	**$17,048**	**$20,081**	**$10,673**	**$20,328**	**$6,896**	**$75,027**
85	Solution	Enterprise Health & Safety	Business Analyst	PG&E Labor	5,444	3,073	-	-	-	8,516	$1,514	$893	-	-	-	$2,406
86	Solution	Enterprise Health & Safety	Business Lead	PG&E Labor	3,225	1,821	-	-	-	5,046	$897	$529	-	-	-	$1,426
87	Solution	Enterprise Health & Safety	Business Manager	PG&E Labor	500	282	-	-	-	782	$139	$82	-	-	-	$221
88	Solution	Enterprise Health & Safety	IT Analyst	PG&E Labor	1,780	1,145	-	-	-	2,924	$465	$312	-	-	-	$777
89	Solution	Enterprise Health & Safety	IT Lead	PG&E Labor	2,671	1,718	-	-	-	4,389	$698	$469	-	-	-	$1,167
90		**Enterprise Health & Safety Subtotal**			**13,619**	**8,039**	**-**	**-**	**-**	**21,658**	**$3,713**	**$2,285**	**-**	**-**	**-**	**$5,998**
91	Solution	Finance	Admin Support	PG&E Labor	577	516	464	1,060	689	3,306	$160	$152	$147	$345	$232	$1,036
92	Solution	Finance	Business Analyst	PG&E Labor	7,442	6,663	5,994	13,684	8,899	42,682	$2,070	$1,967	$1,894	$4,449	$2,995	$13,374
93	Solution	Finance	Business Lead	PG&E Labor	5,710	5,112	4,598	10,498	6,827	32,744	$1,588	$1,509	$1,453	$3,413	$2,297	$10,260
94	Solution	Finance	Business Manager	PG&E Labor	577	516	464	1,060	689	3,306	$160	$152	$147	$345	$232	$1,036
95	Solution	Finance	Consultant	PG&E Labor	810	728	733	1,673	1,088	5,031	$212	$202	$217	$509	$343	$1,483
96	Solution	Finance	IT Analyst	PG&E Labor	7,762	6,977	7,023	16,034	10,427	48,222	$2,028	$1,937	$2,078	$4,882	$3,286	$14,211
97	Solution	Finance	IT Lead	PG&E Labor	802	721	726	1,658	1,078	4,986	$210	$200	$215	$505	$340	$1,469
98	Solution	Finance	Product Owner	PG&E Labor	2,244	2,009	1,807	4,126	2,683	12,868	$624	$593	$571	$1,341	$903	$4,032
99	Solution	Finance	Solution Architect	PG&E Labor	405	364	366	836	544	2,515	$106	$101	$108	$255	$171	$741
100		**Finance Subtotal**			**26,328**	**23,605**	**22,176**	**50,628**	**32,924**	**155,661**	**$7,158**	**$6,815**	**$6,828**	**$16,042**	**$10,799**	**$47,642**
101	Solution	Human Resources	Admin Support	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
102	Solution	Human Resources	Business Analyst	PG&E Labor	6,522	4,480	1,425	4,777	4,852	22,057	$1,784	$1,281	$441	$1,531	$1,612	$6,649
103	Solution	Human Resources	Business Lead	PG&E Labor	6,609	4,500	1,384	4,640	4,712	21,845	$1,838	$1,309	$436	$1,516	$1,597	$6,696
104	Solution	Human Resources	Business Manager	PG&E Labor	1,015	691	213	712	723	3,354	$282	$201	$67	$233	$245	$1,028
105	Solution	Human Resources	IT Analyst	PG&E Labor	606	426	147	492	500	2,171	$158	$116	$43	$151	$159	$627
106	Solution	Human Resources	IT Lead	PG&E Labor	10,208	7,171	2,476	8,298	8,427	36,580	$2,668	$1,961	$731	$2,539	$2,674	$10,572
107	Solution	Human Resources	Product Owner	PG&E Labor	3,215	2,189	673	2,257	2,292	10,627	$894	$637	$212	$737	$777	$3,258
108		**Human Resources Subtotal**			**28,175**	**19,456**	**6,319**	**21,178**	**21,506**	**96,634**	**$7,624**	**$5,505**	**$1,930**	**$6,707**	**$7,064**	**$28,830**
109	Solution	Integrated Planning	Business Analyst	PG&E Labor	2,696	2,481	1,594	2,284	575	9,630	$776	$747	$504	$739	$189	$2,956
110	Solution	Integrated Planning	Business Lead	PG&E Labor	1,768	1,627	1,045	1,498	377	6,315	$509	$490	$331	$485	$124	$1,938
111	Solution	Integrated Planning	Business Manager	PG&E Labor	3,195	2,939	1,888	2,706	681	11,409	$919	$885	$597	$876	$223	$3,502
112	Solution	Integrated Planning	IT Lead	PG&E Labor	391	370	237	339	85	1,423	$106	$104	$70	$103	$26	$409
113		**Integrated Planning Subtotal**			**8,051**	**7,417**	**4,764**	**6,827**	**1,719**	**28,778**	**$2,310**	**$2,227**	**$1,503**	**$2,203**	**$562**	**$8,805**
114	Solution	Supply Chain	Business Analyst	PG&E Labor	13,579	19,654	18,570	30,561	8,464	90,828	$3,777	$5,835	$5,875	$9,933	$2,800	$28,219
115	Solution	Supply Chain	Business Lead	PG&E Labor	3,606	5,219	4,931	8,115	2,247	24,118	$1,003	$1,549	$1,560	$2,638	$743	$7,493
116	Solution	Supply Chain	Business Manager	PG&E Labor	736	1,065	1,006	1,656	458	4,920	$205	$316	$318	$538	$152	$1,529
117	Solution	Supply Chain	IT Analyst	PG&E Labor	4,981	8,334	9,613	15,821	4,381	43,130	$1,302	$2,331	$2,848	$4,816	$1,358	$12,654
118	Solution	Supply Chain	IT Architect	PG&E Labor	981	1,641	1,893	3,116	863	8,494	$256	$459	$561	$949	$267	$2,492
119	Solution	Supply Chain	IT Lead	PG&E Labor	1,006	1,684	1,942	3,196	885	8,714	$263	$471	$575	$973	$274	$2,557
120	Solution	Supply Chain	Product Owner	PG&E Labor	699	1,012	957	1,574	436	4,679	$195	$301	$303	$512	$144	$1,454
121		**Supply Chain Subtotal**			**25,587**	**38,609**	**38,912**	**64,038**	**17,735**	**184,882**	**$6,999**	**$11,261**	**$12,040**	**$20,358**	**$5,739**	**$56,397**
122	Solution	Work and Asset Management	Business Analyst	PG&E Labor	40,927	65,594	60,700	97,448	24,287	288,956	$11,239	$19,296	$18,977	$31,166	$7,868	$88,546
123	Solution	Work and Asset Management	Business Lead	PG&E Labor	8,290	13,613	12,621	20,261	5,050	59,834	$2,306	$4,052	$3,993	$6,558	$1,656	$18,564
124	Solution	Work and Asset Management	Business Manager	PG&E Labor	1,983	3,256	3,019	4,846	1,208	14,312	$551	$969	$955	$1,569	$396	$4,441
125	Solution	Work and Asset Management	IT Analyst	PG&E Labor	5,158	7,496	6,880	11,046	2,753	33,332	$1,348	$2,092	$2,039	$3,349	$845	$9,673
126	Solution	Work and Asset Management	IT Lead	PG&E Labor	3,872	5,627	5,165	8,292	2,067	25,024	$1,012	$1,571	$1,531	$2,514	$635	$7,262
127		**Work and Asset Management Subtotal**			**60,229**	**95,586**	**88,385**	**141,893**	**35,364**	**421,457**	**$16,456**	**$27,980**	**$27,494**	**$45,155**	**$11,400**	**$128,485**
128			**Capital Subtotal**	**PG&E Labor**	**246,141**	**280,488**	**204,637**	**367,123**	**138,263**	**1,236,652**	**$66,575**	**$80,707**	**$62,915**	**$115,549**	**$44,635**	**$370,380**

Workpaper 3-1D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

ERP - Solution PG&E Labor					(E) Expense Hours						(F) = (A) * (E) Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Resource Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
129	Solution	Data & Analytics	Business Analyst	PG&E Labor	1,064	-	-	-	-	1,064	$291	-	-	-	-	$291
130	Solution	Data & Analytics	Business Lead	PG&E Labor	507	-	-	-	-	507	$139	-	-	-	-	$139
131	Solution	Data & Analytics	Developer	PG&E Labor	72	-	-	-	-	72	$19	-	-	-	-	$19
132	Solution	Data & Analytics	IT Analyst	PG&E Labor	216	-	-	-	-	216	$56	-	-	-	-	$56
133	Solution	Data & Analytics	IT Architect	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
134	Solution	Data & Analytics	IT Lead	PG&E Labor	191	-	-	-	-	191	$49	-	-	-	-	$49
135	Solution	Data & Analytics	IT Manager	PG&E Labor	66	-	-	-	-	66	$17	-	-	-	-	$17
136	Solution	Data & Analytics	Solution Architect	PG&E Labor	72	-	-	-	-	72	$19	-	-	-	-	$19
137		**Data & Analytics Subtotal**			**2,188**	-	-	-	-	**2,188**	**$588**	-	-	-	-	**$588**
138	Solution	Development, Integration, & Solution Delivery	Admin Support	PG&E Labor	394	-	-	-	-	394	$103	-	-	-	-	$103
139	Solution	Development, Integration, & Solution Delivery	Business Consultant	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
140	Solution	Development, Integration, & Solution Delivery	Business Manager	PG&E Labor	299	-	-	-	-	299	$83	-	-	-	-	$83
141	Solution	Development, Integration, & Solution Delivery	Developer	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
142	Solution	Development, Integration, & Solution Delivery	IT Analyst	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
143	Solution	Development, Integration, & Solution Delivery	IT Architect	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
144	Solution	Development, Integration, & Solution Delivery	IT Lead	PG&E Labor	554	-	-	-	-	554	$145	-	-	-	-	$145
145	Solution	Development, Integration, & Solution Delivery	IT Manager	PG&E Labor	915	-	-	-	-	915	$239	-	-	-	-	$239
146	Solution	Development, Integration, & Solution Delivery	Product Owner	PG&E Labor	1,748	-	-	-	-	1,748	$457	-	-	-	-	$457
147	Solution	Development, Integration, & Solution Delivery	Solution Architect	PG&E Labor	276	-	-	-	-	276	$72	-	-	-	-	$72
148		**Development, Integration, & Solution Delivery Subtotal**			**4,187**	-	-	-	-	**4,187**	**$1,099**	-	-	-	-	**$1,099**
149	Solution	Enterprise Health & Safety	Business Analyst	PG&E Labor	605	-	-	-	-	605	$168	-	-	-	-	$168
150	Solution	Enterprise Health & Safety	Business Lead	PG&E Labor	358	-	-	-	-	358	$100	-	-	-	-	$100
151	Solution	Enterprise Health & Safety	Business Manager	PG&E Labor	56	-	-	-	-	56	$15	-	-	-	-	$15
152	Solution	Enterprise Health & Safety	IT Analyst	PG&E Labor	198	-	-	-	-	198	$52	-	-	-	-	$52
153	Solution	Enterprise Health & Safety	IT Lead	PG&E Labor	297	-	-	-	-	297	$78	-	-	-	-	$78
154		**Enterprise Health & Safety Subtotal**			**1,513**	-	-	-	-	**1,513**	**$413**	-	-	-	-	**$413**
155	Solution	Finance	Admin Support	PG&E Labor	64	-	-	-	-	64	$18	-	-	-	-	$18
156	Solution	Finance	Business Analyst	PG&E Labor	827	-	-	-	-	827	$230	-	-	-	-	$230
157	Solution	Finance	Business Lead	PG&E Labor	634	-	-	-	-	634	$176	-	-	-	-	$176
158	Solution	Finance	Business Manager	PG&E Labor	64	-	-	-	-	64	$18	-	-	-	-	$18
159	Solution	Finance	Consultant	PG&E Labor	90	-	-	-	-	90	$24	-	-	-	-	$24
160	Solution	Finance	IT Analyst	PG&E Labor	862	-	-	-	-	862	$225	-	-	-	-	$225
161	Solution	Finance	IT Lead	PG&E Labor	89	-	-	-	-	89	$23	-	-	-	-	$23
162	Solution	Finance	Product Owner	PG&E Labor	249	-	-	-	-	249	$69	-	-	-	-	$69
163	Solution	Finance	Solution Architect	PG&E Labor	45	-	-	-	-	45	$12	-	-	-	-	$12
164		**Finance Subtotal**			**2,925**	-	-	-	-	**2,925**	**$795**	-	-	-	-	**$795**
165	Solution	Human Resources	Admin Support	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
166	Solution	Human Resources	Business Analyst	PG&E Labor	725	-	-	-	-	725	$198	-	-	-	-	$198
167	Solution	Human Resources	Business Lead	PG&E Labor	734	-	-	-	-	734	$204	-	-	-	-	$204
168	Solution	Human Resources	Business Manager	PG&E Labor	113	-	-	-	-	113	$31	-	-	-	-	$31
169	Solution	Human Resources	IT Analyst	PG&E Labor	67	-	-	-	-	67	$18	-	-	-	-	$18
170	Solution	Human Resources	IT Lead	PG&E Labor	1,134	-	-	-	-	1,134	$296	-	-	-	-	$296
171	Solution	Human Resources	Product Owner	PG&E Labor	357	-	-	-	-	357	$99	-	-	-	-	$99
172		**Human Resources Subtotal**			**3,131**	-	-	-	-	**3,131**	**$847**	-	-	-	-	**$847**
173	Solution	Integrated Planning	Business Analyst	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
174	Solution	Integrated Planning	Business Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
175	Solution	Integrated Planning	Business Manager	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
176	Solution	Integrated Planning	IT Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
177		**Integrated Planning Subtotal**			-	-	-	-	-	-	-	-	-	-	-	-
178	Solution	Supply Chain	Business Analyst	PG&E Labor	1,509	-	-	-	-	1,509	$420	-	-	-	-	$420
179	Solution	Supply Chain	Business Lead	PG&E Labor	401	-	-	-	-	401	$111	-	-	-	-	$111
180	Solution	Supply Chain	Business Manager	PG&E Labor	82	-	-	-	-	82	$23	-	-	-	-	$23
181	Solution	Supply Chain	IT Analyst	PG&E Labor	553	-	-	-	-	553	$145	-	-	-	-	$145
182	Solution	Supply Chain	IT Architect	PG&E Labor	109	-	-	-	-	109	$28	-	-	-	-	$28
183	Solution	Supply Chain	IT Lead	PG&E Labor	112	-	-	-	-	112	$29	-	-	-	-	$29
184	Solution	Supply Chain	Product Owner	PG&E Labor	78	-	-	-	-	78	$22	-	-	-	-	$22
185		**Supply Chain Subtotal**			**2,843**	-	-	-	-	**2,843**	**$778**	-	-	-	-	**$778**
186	Solution	Work and Asset Management	Business Analyst	PG&E Labor	4,547	-	-	-	-	4,547	$1,249	-	-	-	-	$1,249
187	Solution	Work and Asset Management	Business Lead	PG&E Labor	921	-	-	-	-	921	$256	-	-	-	-	$256
188	Solution	Work and Asset Management	Business Manager	PG&E Labor	220	-	-	-	-	220	$61	-	-	-	-	$61
189	Solution	Work and Asset Management	IT Analyst	PG&E Labor	573	-	-	-	-	573	$150	-	-	-	-	$150
190	Solution	Work and Asset Management	IT Lead	PG&E Labor	430	-	-	-	-	430	$112	-	-	-	-	$112
191		**Work and Asset Management Subtotal**			-	-	-	-	-	**6,692**	**$1,828**	-	-	-	-	**$1,828**
192			**Expense Subtotal**	**PG&E Labor**	**16,788**	-	-	-	-	**23,480**	**$6,349**	-	-	-	-	**$6,349**

Workpaper 3-1D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

ERP - Solution PG&E Labor					(G) = (C) + (E) Total Hours						(H) = (D) + (F) Total Forecast					
Line No.	Cost Group	Workstream	Resource	Resource Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
193	Solution	Data & Analytics	Business Analyst	PG&E Labor	7,935	5,205	636	1,205	533	15,514	$2,181	$1,498	$201	$390	$178	$4,448
194	Solution	Data & Analytics	Business Lead	PG&E Labor	4,263	2,842	452	860	384	8,801	$1,178	$823	$143	$279	$128	$2,550
195	Solution	Data & Analytics	Developer	PG&E Labor	480	380	423	794	346	2,424	$124	$105	$125	$241	$108	$703
196	Solution	Data & Analytics	IT Analyst	PG&E Labor	2,820	2,359	2,167	4,107	1,819	13,272	$742	$659	$642	$1,246	$568	$3,858
197	Solution	Data & Analytics	IT Architect	PG&E Labor	1,613	1,426	1,050	2,018	912	7,019	$435	$402	$311	$612	$285	$2,045
198	Solution	Data & Analytics	IT Lead	PG&E Labor	3,616	3,078	2,648	5,037	2,243	16,622	$959	$863	$784	$1,528	$701	$4,835
199	Solution	Data & Analytics	IT Manager	PG&E Labor	438	347	386	725	316	2,213	$113	$96	$114	$220	$99	$642
200	Solution	Data & Analytics	Solution Architect	PG&E Labor	480	380	423	794	346	2,424	$124	$105	$125	$241	$108	$703
201		**Data & Analytics Subtotal**			**21,646**	**16,017**	**8,186**	**15,540**	**6,900**	**68,288**	**$5,854**	**$4,552**	**$2,446**	**$4,755**	**$2,176**	**$19,784**
202	Solution	Development, Integration, & Solution Delivery	Admin Support	PG&E Labor	16,242	21,481	13,303	25,508	8,757	85,290	$4,300	$6,032	$3,939	$7,713	$2,722	$24,706
203	Solution	Development, Integration, & Solution Delivery	Business Consultant	PG&E Labor	1,620	1,095	-	-	-	2,716	$451	$318	-	-	-	$769
204	Solution	Development, Integration, & Solution Delivery	Business Manager	PG&E Labor	2,993	2,681	2,224	2,495	672	11,065	$832	$792	$703	$818	$228	$3,373
205	Solution	Development, Integration, & Solution Delivery	Developer	PG&E Labor	5,083	11,906	7,489	15,261	4,976	44,714	$1,328	$3,348	$2,217	$4,609	$1,546	$13,048
206	Solution	Development, Integration, & Solution Delivery	IT Analyst	PG&E Labor	1,651	3,866	2,432	4,956	1,616	14,520	$431	$1,087	$720	$1,497	$502	$4,237
207	Solution	Development, Integration, & Solution Delivery	IT Architect	PG&E Labor	289	678	426	869	283	2,545	$76	$191	$126	$262	$88	$743
208	Solution	Development, Integration, & Solution Delivery	IT Lead	PG&E Labor	9,765	10,434	5,325	10,171	3,406	39,101	$2,566	$2,914	$1,577	$3,076	$1,059	$11,191
209	Solution	Development, Integration, & Solution Delivery	IT Manager	PG&E Labor	10,449	7,798	2,525	4,581	1,454	26,807	$2,731	$2,156	$747	$1,387	$453	$7,475
210	Solution	Development, Integration, & Solution Delivery	Product Owner	PG&E Labor	18,026	10,382	1,986	2,971	894	34,260	$4,711	$2,850	$588	$904	$280	$9,333
211	Solution	Development, Integration, & Solution Delivery	Solution Architect	PG&E Labor	2,763	1,438	186	209	56	4,651	$722	$393	$55	$64	$18	$1,252
212		**Development, Integration, & Solution Delivery Subtotal**			**68,881**	**71,758**	**35,896**	**67,019**	**22,114**	**265,669**	**$18,148**	**$20,081**	**$10,673**	**$20,328**	**$6,896**	**$76,126**
213	Solution	Enterprise Health & Safety	Business Analyst	PG&E Labor	6,048	3,073	-	-	-	9,121	$1,682	$893	-	-	-	$2,575
214	Solution	Enterprise Health & Safety	Business Lead	PG&E Labor	3,584	1,821	-	-	-	5,404	$997	$529	-	-	-	$1,526
215	Solution	Enterprise Health & Safety	Business Manager	PG&E Labor	555	282	-	-	-	838	$154	$82	-	-	-	$236
216	Solution	Enterprise Health & Safety	IT Analyst	PG&E Labor	1,977	1,145	-	-	-	3,122	$517	$312	-	-	-	$829
217	Solution	Enterprise Health & Safety	IT Lead	PG&E Labor	2,967	1,718	-	-	-	4,686	$775	$469	-	-	-	$1,244
218		**Enterprise Health & Safety Subtotal**			**15,132**	**8,039**	**-**	**-**	**-**	**23,171**	**$4,126**	**$2,285**	**-**	**-**	**-**	**$6,410**
219	Solution	Finance	Admin Support	PG&E Labor	641	516	464	1,060	689	3,370	$178	$152	$147	$345	$232	$1,054
220	Solution	Finance	Business Analyst	PG&E Labor	8,269	6,663	5,994	13,684	8,899	43,509	$2,300	$1,967	$1,894	$4,449	$2,995	$13,604
221	Solution	Finance	Business Lead	PG&E Labor	6,344	5,112	4,598	10,498	6,827	33,379	$1,764	$1,509	$1,453	$3,413	$2,297	$10,436
222	Solution	Finance	Business Manager	PG&E Labor	641	516	464	1,060	689	3,370	$178	$152	$147	$345	$232	$1,054
223	Solution	Finance	Consultant	PG&E Labor	900	728	733	1,673	1,088	5,120	$235	$202	$217	$509	$343	$1,506
224	Solution	Finance	IT Analyst	PG&E Labor	8,624	6,977	7,023	16,034	10,427	49,084	$2,254	$1,937	$2,078	$4,882	$3,286	$14,437
225	Solution	Finance	IT Lead	PG&E Labor	892	721	726	1,658	1,078	5,075	$233	$200	$215	$505	$340	$1,493
226	Solution	Finance	Product Owner	PG&E Labor	2,493	2,009	1,807	4,126	2,683	13,118	$693	$593	$571	$1,341	$903	$4,101
227	Solution	Finance	Solution Architect	PG&E Labor	450	364	366	836	544	2,560	$118	$101	$108	$255	$171	$753
228		**Finance Subtotal**			**29,253**	**23,605**	**22,176**	**50,628**	**32,924**	**158,586**	**$7,953**	**$6,815**	**$6,828**	**$16,042**	**$10,799**	**$48,438**
229	Solution	Human Resources	Admin Support	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
230	Solution	Human Resources	Business Analyst	PG&E Labor	7,247	4,480	1,425	4,777	4,852	22,781	$1,982	$1,281	$441	$1,531	$1,612	$6,847
231	Solution	Human Resources	Business Lead	PG&E Labor	7,343	4,500	1,384	4,640	4,712	22,580	$2,042	$1,309	$436	$1,516	$1,597	$6,900
232	Solution	Human Resources	Business Manager	PG&E Labor	1,127	691	213	712	723	3,467	$314	$201	$67	$233	$245	$1,059
233	Solution	Human Resources	IT Analyst	PG&E Labor	673	426	147	492	500	2,238	$176	$116	$43	$151	$159	$645
234	Solution	Human Resources	IT Lead	PG&E Labor	11,343	7,171	2,476	8,298	8,427	37,714	$2,964	$1,961	$731	$2,539	$2,674	$10,869
235	Solution	Human Resources	Product Owner	PG&E Labor	3,572	2,189	673	2,257	2,292	10,984	$994	$637	$212	$737	$777	$3,357
236		**Human Resources Subtotal**			**31,306**	**19,456**	**6,319**	**21,178**	**21,506**	**99,764**	**$8,472**	**$5,505**	**$1,930**	**$6,707**	**$7,064**	**$29,677**
237	Solution	Integrated Planning	Business Analyst	PG&E Labor	2,696	2,481	1,594	2,284	575	9,630	$776	$747	$504	$739	$189	$2,956
238	Solution	Integrated Planning	Business Lead	PG&E Labor	1,768	1,627	1,045	1,498	377	6,315	$509	$490	$331	$485	$124	$1,938
239	Solution	Integrated Planning	Business Manager	PG&E Labor	3,195	2,939	1,888	2,706	681	11,409	$919	$885	$597	$876	$223	$3,502
240	Solution	Integrated Planning	IT Lead	PG&E Labor	391	370	237	339	85	1,423	$106	$104	$70	$103	$26	$409
241		**Integrated Planning Subtotal**			**8,051**	**7,417**	**4,764**	**6,827**	**1,719**	**28,778**	**$2,310**	**$2,227**	**$1,503**	**$2,203**	**$562**	**$8,805**
242	Solution	Supply Chain	Business Analyst	PG&E Labor	15,087	19,654	18,570	30,561	8,464	92,336	$4,196	$5,835	$5,875	$9,933	$2,800	$28,638
243	Solution	Supply Chain	Business Lead	PG&E Labor	4,006	5,219	4,931	8,115	2,247	24,519	$1,114	$1,549	$1,560	$2,638	$743	$7,605
244	Solution	Supply Chain	Business Manager	PG&E Labor	817	1,065	1,006	1,656	458	5,002	$227	$316	$318	$538	$152	$1,551
245	Solution	Supply Chain	IT Analyst	PG&E Labor	5,534	8,334	9,613	15,821	4,381	43,683	$1,446	$2,331	$2,848	$4,816	$1,358	$12,799
246	Solution	Supply Chain	IT Architect	PG&E Labor	1,090	1,641	1,893	3,116	863	8,603	$285	$459	$561	$949	$267	$2,521
247	Solution	Supply Chain	IT Lead	PG&E Labor	1,118	1,684	1,942	3,196	885	8,825	$292	$471	$575	$973	$274	$2,586
248	Solution	Supply Chain	Product Owner	PG&E Labor	777	1,012	957	1,574	436	4,756	$216	$301	$303	$512	$144	$1,475
249		**Supply Chain Subtotal**			**28,430**	**38,609**	**38,912**	**64,038**	**17,735**	**187,726**	**$7,777**	**$11,261**	**$12,040**	**$20,358**	**$5,739**	**$57,175**
250	Solution	Work and Asset Management	Business Analyst	PG&E Labor	45,474	65,594	60,700	97,448	24,287	293,503	$12,488	$19,296	$18,977	$31,166	$7,868	$89,795
251	Solution	Work and Asset Management	Business Lead	PG&E Labor	9,211	13,613	12,621	20,261	5,050	60,755	$2,562	$4,052	$3,993	$6,558	$1,656	$18,821
252	Solution	Work and Asset Management	Business Manager	PG&E Labor	2,203	3,256	3,019	4,846	1,208	14,532	$613	$969	$955	$1,569	$396	$4,502
253	Solution	Work and Asset Management	IT Analyst	PG&E Labor	5,731	7,496	6,880	11,046	2,753	33,905	$1,498	$2,092	$2,039	$3,349	$845	$9,822
254	Solution	Work and Asset Management	IT Lead	PG&E Labor	4,302	5,627	5,165	8,292	2,067	25,454	$1,124	$1,571	$1,531	$2,514	$635	$7,374
255		**Work and Asset Management Subtotal**			60,229	95,586	88,385	141,893	35,364	428,150	**$18,285**	**$27,980**	**$27,494**	**$45,155**	**$11,400**	**$130,314**
256			**Grand Total**	**PG&E Labor**	**262,929**	**280,488**	**204,637**	**367,123**	**138,263**	**1,260,132**	**$72,924**	**$80,707**	**$62,915**	**$115,549**	**$44,635**	**$376,729**

ADDITIONAL WORKPAPER NOTES

A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-1E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(A) Staffing Rate $/HR						(B) Staffing FTE					
ERP - Solution External / SI Labor																
Line No.	**Cost Group**	**Workstream**	**Resource**	**Type**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
1	Solution	Data & Analytics	Business Analyst	External Labor	$133	$138	$144	$147	$151	$143	0.0	0.0	0.0	0.0	0.0	0.1
2	Solution	Data & Analytics	Developer	External Labor	$112	$116	$120	$123	$126	$120	24.4	21.0	21.2	40.6	18.1	125.4
3	Solution	Data & Analytics	IT Analyst	External Labor	$116	$120	$125	$128	$131	$124	14.9	12.6	12.8	24.3	10.8	75.4
4	Solution	Data & Analytics	IT Architect	External Labor	$133	$138	$144	$147	$151	$143	2.8	2.3	2.3	4.3	1.9	13.6
5	Solution	Data & Analytics	IT Lead	External Labor	$117	$121	$126	$128	$131	$125	5.9	5.0	5.0	9.5	4.2	29.6
6	Solution	Data & Analytics	IT Manager	External Labor	$124	$128	$133	$136	$139	$132	0.6	0.5	0.5	0.9	0.4	2.8
7	Solution	Data & Analytics	Principal	External Labor	$114	$118	$123	$125	$128	$122	1.1	1.0	1.0	1.9	0.8	5.8
8	Solution	Data & Analytics	Scrum Master	External Labor	$117	$121	$126	$128	$131	$125	0.4	0.3	0.3	0.7	0.3	2.0
9	Solution	Data & Analytics	Solution Architect	External Labor	$133	$138	$144	$147	$151	$143	0.0	0.0	0.0	0.1	0.0	0.2
10		**Data & Analytics Subtotal**									**50.1**	**42.8**	**43.1**	**82.3**	**36.7**	**254.9**
11	Solution	Development, Integration, & Solution Delivery	Consultant (Other SI)	External Labor	$107	$108	$116	$116	$120	$112	16.8	31.6	13.8	26.8	8.8	97.7
12	Solution	Development, Integration, & Solution Delivery	Developer	External Labor	$107	$112	$116	$118	$121	$116	8.6	11.6	15.9	31.2	12.8	80.2
13	Solution	Development, Integration, & Solution Delivery	IT Analyst	External Labor	$118	$115	$112	$113	$115	$114	24.9	26.4	32.8	60.5	23.8	168.5
14	Solution	Development, Integration, & Solution Delivery	IT Architect	External Labor	$109	$111	$113	$115	$117	$114	6.5	7.9	10.4	19.9	8.0	52.7
15	Solution	Development, Integration, & Solution Delivery	IT Lead	External Labor	$147	$103	$112	$110	$125	$109	5.2	57.7	17.0	38.8	4.7	123.5
16	Solution	Development, Integration, & Solution Delivery	IT Manager	External Labor	$197	$195	$181	$171	$165	$187	3.9	2.5	1.5	2.1	0.7	10.7
17	Solution	Development, Integration, & Solution Delivery	Principal	External Labor	$164	$149	$133	$129	$129	$140	2.0	1.8	1.9	3.4	1.3	10.4
18	Solution	Development, Integration, & Solution Delivery	Scrum Master	External Labor	$133	$125	$116	$115	$116	$120	0.6	0.6	0.7	1.3	0.5	3.7
19	Solution	Development, Integration, & Solution Delivery	Solution Architect	External Labor	$207	$213	$224	$230	$237	$215	0.5	0.3	0.1	0.2	0.0	1.2
20		**Development, Integration, & Solution Delivery Subtotal**									**69.2**	**140.5**	**94.2**	**184.1**	**60.6**	**548.6**
21	Solution	Enterprise Health & Safety	Business Analyst	External Labor	$194	$199	$0	$0	$0	$195	9.7	3.3	-	-	-	12.9
22	Solution	Enterprise Health & Safety	Business Lead	External Labor	$194	$199	$0	$0	$0	$195	0.7	0.2	-	-	-	0.9
23	Solution	Enterprise Health & Safety	Business Manager	External Labor	$194	$199	$0	$0	$0	$195	0.5	0.2	-	-	-	0.7
24	Solution	Enterprise Health & Safety	Principal	External Labor	$194	$199	$0	$0	$0	$195	0.7	0.2	-	-	-	0.9
25	Solution	Enterprise Health & Safety	Solution Architect	External Labor	$194	$199	$0	$0	$0	$195	0.6	0.2	-	-	-	0.8
26		**Enterprise Health & Safety Subtotal**									**12.1**	**4.1**	**-**	**-**	**-**	**16.2**
27	Solution	Finance	Business Analyst	External Labor	$171	$177	$185	$189	$194	$184	13.6	8.5	8.7	20.0	13.0	63.7
28	Solution	Finance	Business Lead	External Labor	$171	$177	$185	$189	$194	$184	4.7	2.9	3.0	6.9	4.5	22.0
29	Solution	Finance	Business Manager	External Labor	$171	$177	$185	$189	$194	$184	1.0	0.6	0.6	1.5	0.9	4.7
30	Solution	Finance	Consultant (Other SI)	External Labor	$171	$176	$185	$189	$194	$182	18.2	22.8	10.8	24.8	16.1	92.6
31	Solution	Finance	Principal	External Labor	$171	$177	$185	$189	$194	$184	1.4	0.9	0.9	2.1	1.3	6.6
32		**Finance Subtotal**									**38.9**	**35.6**	**24.0**	**55.1**	**35.9**	**189.5**
33	Solution	Human Resources	Business Analyst	External Labor	$159	$163	$173	$178	$182	$171	19.9	10.2	5.2	17.5	17.8	70.6
34	Solution	Human Resources	Business Lead	External Labor	$159	$163	$173	$178	$182	$171	5.1	2.6	1.3	4.5	4.5	18.0
35	Solution	Human Resources	Business Manager	External Labor	$159	$163	$173	$178	$182	$171	0.3	0.2	0.1	0.3	0.3	1.1
36	Solution	Human Resources	Consultant (Other SI)	External Labor	$159	$163	$173	$178	$182	$167	9.4	9.5	1.3	4.3	4.3	28.8
37	Solution	Human Resources	IT Architect	External Labor	$159	$163	$173	$178	$182	$171	0.6	0.3	0.2	0.6	0.6	2.3
38	Solution	Human Resources	Principal	External Labor	$159	$163	$173	$178	$182	$171	1.3	0.6	0.3	1.1	1.1	4.4
39	Solution	Human Resources	Solution Architect	External Labor	$159	$163	$173	$178	$182	$171	0.5	0.3	0.1	0.5	0.5	1.8
40		**Human Resources Subtotal**									**37.1**	**23.8**	**8.5**	**28.6**	**29.1**	**127.1**
41	Solution	Integrated Planning	Business Analyst	External Labor	$221	$228	$239	$244	$250	$229	9.7	5.8	2.3	3.3	0.8	21.9
42	Solution	Integrated Planning	Business Lead	External Labor	$221	$228	$239	$244	$250	$229	1.2	0.7	0.3	0.4	0.1	2.8
43	Solution	Integrated Planning	Business Manager	External Labor	$221	$228	$239	$244	$250	$229	0.9	0.5	0.2	0.3	0.1	2.0
44	Solution	Integrated Planning	IT Analyst	External Labor	$221	$228	$239	$244	$250	$229	0.8	0.5	0.2	0.3	0.1	1.8
45	Solution	Integrated Planning	Principal	External Labor	$221	$228	$239	$244	$250	$229	1.2	0.7	0.3	0.4	0.1	2.6
46		**Integrated Planning Subtotal**									**13.7**	**8.2**	**3.3**	**4.7**	**1.2**	**31.1**
47	Solution	Supply Chain	Business Analyst	External Labor	$135	$141	$146	$149	$151	$145	21.5	27.9	28.1	46.4	13.0	136.8
48	Solution	Supply Chain	Business Lead	External Labor	$135	$141	$146	$149	$151	$145	4.9	6.4	6.5	10.7	3.0	31.6
49	Solution	Supply Chain	Consultant (Other SI)	External Labor	$135	$140	$146	$149	$151	$144	8.7	13.4	8.7	14.5	4.0	49.3
50	Solution	Supply Chain	Principal	External Labor	$135	$141	$146	$149	$151	$145	1.3	1.7	1.7	2.8	0.8	8.2
51	Solution	Supply Chain	Solution Architect	External Labor	$135	$141	$146	$149	$151	$145	0.4	0.6	0.6	0.9	0.3	2.7
52		**Supply Chain Subtotal**									**36.8**	**49.9**	**45.5**	**75.3**	**21.1**	**228.6**
53	Solution	Work and Asset Management	Business Analyst	External Labor	$158	$166	$170	$173	$175	$170	23.0	40.3	57.2	92.4	23.3	236.0
54	Solution	Work and Asset Management	Business Lead	External Labor	$158	$166	$170	$173	$175	$170	3.3	5.8	8.3	13.4	3.4	34.2
55	Solution	Work and Asset Management	Business Manager	External Labor	$158	$166	$170	$173	$175	$170	1.2	2.1	3.0	4.8	1.2	12.2
56	Solution	Work and Asset Management	Consultant (Other SI)	External Labor	$158	$164	$170	$173	$175	$168	15.0	27.2	19.6	31.6	8.0	101.3
57	Solution	Work and Asset Management	IT Analyst	External Labor	$158	$166	$170	$173	$175	$170	0.5	0.8	1.2	1.9	0.5	4.8
58	Solution	Work and Asset Management	Principal	External Labor	$158	$166	$170	$173	$175	$170	2.8	5.0	7.1	11.4	2.9	29.1
59	Solution	Work and Asset Management	Solution Architect	External Labor	$158	$166	$170	$173	$175	$170	0.0	0.0	0.1	0.1	0.0	0.2
60		**Work and Asset Management Subtotal**									**45.8**	**81.2**	**96.2**	**155.5**	**39.2**	**417.9**
61			**FTE Subtotal**	**External Labor**							**303.7**	**386.0**	**315.0**	**585.7**	**223.6**	**1,814.0**

Workpaper 3-1E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(C)						(D) = (A) * (C)					
ERP - Solution External / SI Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
62	Solution	Data & Analytics	Business Analyst	External Labor	43	41	41	78	34	238	$6	$6	$6	$11	$5	$34
63	Solution	Data & Analytics	Developer	External Labor	41,563	37,864	38,228	73,051	32,663	223,369	$4,611	$4,380	$4,604	$8,985	$4,115	$26,695
64	Solution	Data & Analytics	IT Analyst	External Labor	24,771	22,764	22,954	43,740	19,470	133,699	$2,852	$2,734	$2,870	$5,583	$2,545	$16,583
65	Solution	Data & Analytics	IT Architect	External Labor	4,315	4,114	4,128	7,772	3,394	23,723	$575	$569	$595	$1,145	$513	$3,398
66	Solution	Data & Analytics	IT Lead	External Labor	9,726	8,950	9,023	17,186	7,645	52,530	$1,126	$1,081	$1,134	$2,205	$1,005	$6,551
67	Solution	Data & Analytics	IT Manager	External Labor	897	837	842	1,597	705	4,878	$110	$107	$112	$216	$98	$643
68	Solution	Data & Analytics	Principal	External Labor	1,903	1,741	1,757	3,353	1,495	10,249	$215	$205	$216	$421	$192	$1,249
69	Solution	Data & Analytics	Scrum Master	External Labor	673	619	624	1,189	529	3,634	$78	$75	$78	$153	$70	$453
70	Solution	Data & Analytics	Solution Architect	External Labor	54	52	52	97	43	297	$7	$7	$7	$14	$6	$43
71		**Data & Analytics Subtotal**			**83,945**	**76,982**	**77,649**	**148,062**	**65,977**	**452,616**	**$9,580**	**$9,163**	**$9,623**	**$18,733**	**$8,549**	**$55,648**
72	Solution	Development, Integration, & Solution Delivery	Consultant (Other SI)	External Labor	30,300	56,819	24,789	48,169	15,835	175,911	$3,244	$6,136	$2,885	$5,569	$1,894	$19,727
73	Solution	Development, Integration, & Solution Delivery	Developer	External Labor	15,568	20,923	28,693	56,249	22,952	144,385	$1,667	$2,341	$3,320	$6,638	$2,773	$16,739
74	Solution	Development, Integration, & Solution Delivery	IT Analyst	External Labor	44,037	47,589	59,089	108,960	42,833	302,507	$5,128	$5,461	$6,595	$12,265	$4,913	$34,363
75	Solution	Development, Integration, & Solution Delivery	IT Architect	External Labor	11,704	14,190	18,761	35,787	14,362	94,804	$1,270	$1,576	$2,115	$4,108	$1,687	$10,755
76	Solution	Development, Integration, & Solution Delivery	IT Lead	External Labor	8,965	103,925	30,690	69,821	8,508	221,908	$1,300	$10,734	$3,434	$7,683	$1,064	$24,215
77	Solution	Development, Integration, & Solution Delivery	IT Manager	External Labor	6,363	4,514	2,707	3,762	1,242	18,589	$1,247	$882	$491	$644	$205	$3,469
78	Solution	Development, Integration, & Solution Delivery	Principal	External Labor	3,330	3,240	3,354	6,117	2,411	18,452	$537	$483	$447	$790	$311	$2,568
79	Solution	Development, Integration, & Solution Delivery	Scrum Master	External Labor	1,093	1,099	1,270	2,296	893	6,651	$143	$137	$147	$264	$104	$795
80	Solution	Development, Integration, & Solution Delivery	Solution Architect	External Labor	844	557	255	286	77	2,019	$175	$119	$57	$66	$18	$434
81		**Development, Integration, & Solution Delivery Subtotal**			**122,203**	**252,857**	**169,609**	**331,446**	**109,112**	**985,226**	**$14,709**	**$27,868**	**$19,491**	**$38,028**	**$12,969**	**$113,065**
82	Solution	Enterprise Health & Safety	Business Analyst	External Labor	15,668	5,891	-	-	-	21,559	$3,044	$1,172	-	-	-	$4,216
83	Solution	Enterprise Health & Safety	Business Lead	External Labor	1,121	422	-	-	-	1,543	$218	$84	-	-	-	$302
84	Solution	Enterprise Health & Safety	Business Manager	External Labor	833	313	-	-	-	1,146	$162	$62	-	-	-	$224
85	Solution	Enterprise Health & Safety	Principal	External Labor	1,105	415	-	-	-	1,520	$215	$83	-	-	-	$297
86	Solution	Enterprise Health & Safety	Solution Architect	External Labor	920	346	-	-	-	1,265	$179	$69	-	-	-	$247
87		**Enterprise Health & Safety Subtotal**			**19,646**	**7,387**	**-**	**-**	**-**	**27,033**	**$3,817**	**$1,470**	**-**	**-**	**-**	**$5,286**
88	Solution	Finance	Business Analyst	External Labor	22,029	15,231	15,632	35,916	23,365	112,172	$3,757	$2,695	$2,892	$6,772	$4,528	$20,643
89	Solution	Finance	Business Lead	External Labor	7,607	5,259	5,398	12,402	8,068	38,734	$1,297	$930	$999	$2,338	$1,563	$7,128
90	Solution	Finance	Business Manager	External Labor	1,609	1,112	1,142	2,623	1,706	8,192	$274	$197	$211	$495	$331	$1,508
91	Solution	Finance	Consultant (Other SI)	External Labor	29,411	40,981	19,401	44,575	28,998	163,367	$5,016	$7,201	$3,589	$8,405	$5,619	$29,830
92	Solution	Finance	Principal	External Labor	2,290	1,583	1,625	3,734	2,429	11,662	$391	$280	$301	$704	$471	$2,146
93		**Finance Subtotal**			**62,946**	**64,167**	**43,198**	**99,250**	**64,567**	**334,127**	**$10,736**	**$11,303**	**$7,992**	**$18,713**	**$12,511**	**$61,255**
94	Solution	Human Resources	Business Analyst	External Labor	32,234	18,379	9,400	31,502	31,988	123,502	$5,114	$2,992	$1,630	$5,598	$5,824	$21,158
95	Solution	Human Resources	Business Lead	External Labor	8,229	4,692	2,400	8,042	8,166	31,528	$1,306	$764	$416	$1,429	$1,487	$5,401
96	Solution	Human Resources	Business Manager	External Labor	512	292	149	500	508	1,962	$81	$48	$26	$89	$93	$336
97	Solution	Human Resources	Consultant (Other SI)	External Labor	15,188	17,163	2,286	7,662	7,781	50,080	$2,410	$2,790	$396	$1,362	$1,417	$8,374
98	Solution	Human Resources	IT Architect	External Labor	1,051	599	306	1,027	1,043	4,026	$167	$98	$53	$182	$190	$690
99	Solution	Human Resources	Principal	External Labor	2,026	1,155	591	1,980	2,011	7,763	$321	$188	$102	$352	$366	$1,330
100	Solution	Human Resources	Solution Architect	External Labor	843	481	246	824	836	3,230	$134	$78	$43	$146	$152	$553
101		**Human Resources Subtotal**			**60,082**	**42,760**	**15,378**	**51,537**	**52,333**	**222,090**	**$9,532**	**$6,957**	**$2,666**	**$9,159**	**$9,529**	**$37,843**
102	Solution	Integrated Planning	Business Analyst	External Labor	17,395	10,370	4,167	5,975	1,506	39,413	$3,844	$2,359	$994	$1,458	$376	$9,031
103	Solution	Integrated Planning	Business Lead	External Labor	2,192	1,307	525	753	190	4,967	$484	$297	$125	$184	$47	$1,138
104	Solution	Integrated Planning	Business Manager	External Labor	1,600	954	383	550	139	3,626	$354	$217	$91	$134	$35	$831
105	Solution	Integrated Planning	IT Analyst	External Labor	1,467	874	351	504	127	3,323	$324	$199	$84	$123	$32	$761
106	Solution	Integrated Planning	Principal	External Labor	2,072	1,235	496	712	179	4,695	$458	$281	$118	$174	$45	$1,076
107		**Integrated Planning Subtotal**			**24,727**	**14,740**	**5,923**	**8,493**	**2,141**	**56,023**	**$5,464**	**$3,354**	**$1,413**	**$2,072**	**$534**	**$12,838**
108	Solution	Supply Chain	Business Analyst	External Labor	34,751	50,153	50,506	83,579	23,383	242,372	$4,704	$7,063	$7,384	$12,439	$3,538	$35,128
109	Solution	Supply Chain	Business Lead	External Labor	8,017	11,570	11,651	19,281	5,394	55,913	$1,085	$1,629	$1,703	$2,870	$816	$8,104
110	Solution	Supply Chain	Consultant (Other SI)	External Labor	14,037	24,126	15,731	26,032	7,283	87,207	$1,900	$3,379	$2,300	$3,874	$1,102	$12,555
111	Solution	Supply Chain	Principal	External Labor	2,082	3,005	3,026	5,007	1,401	14,520	$282	$423	$442	$745	$212	$2,104
112	Solution	Supply Chain	Solution Architect	External Labor	696	1,004	1,011	1,674	468	4,853	$94	$141	$148	$249	$71	$703
113		**Supply Chain Subtotal**			**59,583**	**89,858**	**81,924**	**135,572**	**37,929**	**404,865**	**$8,064**	**$12,636**	**$11,978**	**$20,177**	**$5,739**	**$58,595**
114	Solution	Work and Asset Management	Business Analyst	External Labor	37,225	72,488	102,898	166,256	41,878	420,745	$5,866	$12,003	$17,510	$28,761	$7,341	$71,483
115	Solution	Work and Asset Management	Business Lead	External Labor	5,394	10,503	14,910	24,090	6,068	60,964	$850	$1,739	$2,537	$4,167	$1,064	$10,358
116	Solution	Work and Asset Management	Business Manager	External Labor	1,922	3,742	5,312	8,582	2,162	21,719	$303	$620	$904	$1,485	$379	$3,690
117	Solution	Work and Asset Management	Consultant (Other SI)	External Labor	24,258	48,915	35,233	56,927	14,339	179,672	$3,823	$7,999	$5,996	$9,848	$2,514	$30,179
118	Solution	Work and Asset Management	IT Analyst	External Labor	756	1,473	2,091	3,379	851	8,550	$119	$244	$356	$584	$149	$1,453
119	Solution	Work and Asset Management	Principal	External Labor	4,594	8,947	12,700	20,520	5,169	51,930	$724	$1,482	$2,161	$3,550	$906	$8,823
120	Solution	Work and Asset Management	Solution Architect	External Labor	35	68	97	157	40	397	$6	$11	$17	$27	$7	$67
121		**Work and Asset Management Subtotal**			**74,185**	**146,135**	**173,241**	**279,910**	**70,507**	**743,978**	**$11,691**	**$24,098**	**$29,480**	**$48,422**	**$12,360**	**$126,052**
122			**Capital Subtotal**	**External Labor**	**507,316**	**694,885**	**566,922**	**1,054,270**	**402,566**	**3,225,959**	**$73,593**	**$96,849**	**$82,644**	**$155,304**	**$62,192**	**$470,581**

Workpaper 3-1E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(E)						(F) = (A) * (E)					
ERP - Solution External / SI Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
123	Solution	Data & Analytics	Business Analyst	External Labor	8	-	-	-	-	8	$1	-	-	-	-	$1
124	Solution	Data & Analytics	Developer	External Labor	2,416	-	-	-	-	2,416	$322	-	-	-	-	$322
125	Solution	Data & Analytics	IT Analyst	External Labor	1,988	-	-	-	-	1,988	$265	-	-	-	-	$265
126	Solution	Data & Analytics	IT Architect	External Labor	761	-	-	-	-	761	$102	-	-	-	-	$102
127	Solution	Data & Analytics	IT Lead	External Labor	813	-	-	-	-	813	$108	-	-	-	-	$108
128	Solution	Data & Analytics	IT Manager	External Labor	106	-	-	-	-	106	$14	-	-	-	-	$14
129	Solution	Data & Analytics	Principal	External Labor	133	-	-	-	-	133	$18	-	-	-	-	$18
130	Solution	Data & Analytics	Scrum Master	External Labor	56	-	-	-	-	56	$8	-	-	-	-	$8
131	Solution	Data & Analytics	Solution Architect	External Labor	10	-	-	-	-	10	$1	-	-	-	-	$1
132		**Data & Analytics Subtotal**			**6,291**	**-**	**-**	**-**	**-**	**6,291**	**$839**	**-**	**-**	**-**	**-**	**$839**
133	Solution	Development, Integration, & Solution Delivery	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
134	Solution	Development, Integration, & Solution Delivery	Developer	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
135	Solution	Development, Integration, & Solution Delivery	IT Analyst	External Labor	844	-	-	-	-	844	$175	-	-	-	-	$175
136	Solution	Development, Integration, & Solution Delivery	IT Architect	External Labor	81	-	-	-	-	81	$17	-	-	-	-	$17
137	Solution	Development, Integration, & Solution Delivery	IT Lead	External Labor	378	-	-	-	-	378	$78	-	-	-	-	$78
138	Solution	Development, Integration, & Solution Delivery	IT Manager	External Labor	637	-	-	-	-	637	$132	-	-	-	-	$132
139	Solution	Development, Integration, & Solution Delivery	Principal	External Labor	201	-	-	-	-	201	$42	-	-	-	-	$42
140	Solution	Development, Integration, & Solution Delivery	Scrum Master	External Labor	37	-	-	-	-	37	$8	-	-	-	-	$8
141	Solution	Development, Integration, & Solution Delivery	Solution Architect	External Labor	94	-	-	-	-	94	$19	-	-	-	-	$19
142		**Development, Integration, & Solution Delivery Subtotal**			**2,271**	**-**	**-**	**-**	**-**	**2,271**	**$470**	**-**	**-**	**-**	**-**	**$470**
143	Solution	Enterprise Health & Safety	Business Analyst	External Labor	1,741	-	-	-	-	1,741	$338	-	-	-	-	$338
144	Solution	Enterprise Health & Safety	Business Lead	External Labor	125	-	-	-	-	125	$24	-	-	-	-	$24
145	Solution	Enterprise Health & Safety	Business Manager	External Labor	93	-	-	-	-	93	$18	-	-	-	-	$18
146	Solution	Enterprise Health & Safety	Principal	External Labor	123	-	-	-	-	123	$24	-	-	-	-	$24
147	Solution	Enterprise Health & Safety	Solution Architect	External Labor	102	-	-	-	-	102	$20	-	-	-	-	$20
148		**Enterprise Health & Safety Subtotal**			**2,183**	**-**	**-**	**-**	**-**	**2,183**	**$424**	**-**	**-**	**-**	**-**	**$424**
149	Solution	Finance	Business Analyst	External Labor	2,448	-	-	-	-	2,448	$417	-	-	-	-	$417
150	Solution	Finance	Business Lead	External Labor	845	-	-	-	-	845	$144	-	-	-	-	$144
151	Solution	Finance	Business Manager	External Labor	179	-	-	-	-	179	$30	-	-	-	-	$30
152	Solution	Finance	Consultant (Other SI)	External Labor	3,268	-	-	-	-	3,268	$557	-	-	-	-	$557
153	Solution	Finance	Principal	External Labor	254	-	-	-	-	254	$43	-	-	-	-	$43
154		**Finance Subtotal**			**6,994**	**-**	**-**	**-**	**-**	**6,994**	**$1,193**	**-**	**-**	**-**	**-**	**$1,193**
155	Solution	Human Resources	Business Analyst	External Labor	3,582	-	-	-	-	3,582	$568	-	-	-	-	$568
156	Solution	Human Resources	Business Lead	External Labor	914	-	-	-	-	914	$145	-	-	-	-	$145
157	Solution	Human Resources	Business Manager	External Labor	57	-	-	-	-	57	$9	-	-	-	-	$9
158	Solution	Human Resources	Consultant (Other SI)	External Labor	1,688	-	-	-	-	1,688	$268	-	-	-	-	$268
159	Solution	Human Resources	IT Architect	External Labor	117	-	-	-	-	117	$19	-	-	-	-	$19
160	Solution	Human Resources	Principal	External Labor	225	-	-	-	-	225	$36	-	-	-	-	$36
161	Solution	Human Resources	Solution Architect	External Labor	94	-	-	-	-	94	$15	-	-	-	-	$15
162		**Human Resources Subtotal**			**6,676**	**-**	**-**	**-**	**-**	**6,676**	**$1,059**	**-**	**-**	**-**	**-**	**$1,059**
163	Solution	Integrated Planning	Business Analyst	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
164	Solution	Integrated Planning	Business Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
165	Solution	Integrated Planning	Business Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
166	Solution	Integrated Planning	IT Analyst	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
167	Solution	Integrated Planning	Principal	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
168		**Integrated Planning Subtotal**			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
169	Solution	Supply Chain	Business Analyst	External Labor	3,861	-	-	-	-	3,861	$523	-	-	-	-	$523
170	Solution	Supply Chain	Business Lead	External Labor	891	-	-	-	-	891	$121	-	-	-	-	$121
171	Solution	Supply Chain	Consultant (Other SI)	External Labor	1,560	-	-	-	-	1,560	$211	-	-	-	-	$211
172	Solution	Supply Chain	Principal	External Labor	231	-	-	-	-	231	$31	-	-	-	-	$31
173	Solution	Supply Chain	Solution Architect	External Labor	77	-	-	-	-	77	$10	-	-	-	-	$10
174		**Supply Chain Subtotal**			**6,620**	**-**	**-**	**-**	**-**	**6,620**	**$896**	**-**	**-**	**-**	**-**	**$896**
175	Solution	Work and Asset Management	Business Analyst	External Labor	4,136	-	-	-	-	4,136	$652	-	-	-	-	$652
176	Solution	Work and Asset Management	Business Lead	External Labor	599	-	-	-	-	599	$94	-	-	-	-	$94
177	Solution	Work and Asset Management	Business Manager	External Labor	214	-	-	-	-	214	$34	-	-	-	-	$34
178	Solution	Work and Asset Management	Consultant (Other SI)	External Labor	2,695	-	-	-	-	2,695	$425	-	-	-	-	$425
179	Solution	Work and Asset Management	IT Analyst	External Labor	84	-	-	-	-	84	$13	-	-	-	-	$13
180	Solution	Work and Asset Management	Principal	External Labor	510	-	-	-	-	510	$80	-	-	-	-	$80
181	Solution	Work and Asset Management	Solution Architect	External Labor	4	-	-	-	-	4	$1	-	-	-	-	$1
182		**Work and Asset Management Subtotal**			**8,243**	**-**	**-**	**-**	**-**	**8,243**	**$1,299**	**-**	**-**	**-**	**-**	**$1,299**
183			**Expense Subtotal**	**External Labor**	**39,277**	**-**	**-**	**-**	**-**	**39,277**	**$6,180**	**-**	**-**	**-**	**-**	**$6,180**

Workpaper 3-1E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Solution External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Solution External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(G) = (C) + (E)						(H) = (D) + (F)					
ERP - Solution External / SI Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
184	Solution	Data & Analytics	Business Analyst	External Labor	51	41	41	78	34	245	$7	$6	$6	$11	$5	$35
185	Solution	Data & Analytics	Developer	External Labor	43,979	37,864	38,228	73,051	32,663	225,785	$4,933	$4,380	$4,604	$8,985	$4,115	$27,017
186	Solution	Data & Analytics	IT Analyst	External Labor	26,759	22,764	22,954	43,740	19,470	135,687	$3,117	$2,734	$2,870	$5,583	$2,545	$16,848
187	Solution	Data & Analytics	IT Architect	External Labor	5,076	4,114	4,128	7,772	3,394	24,484	$677	$569	$595	$1,145	$513	$3,500
188	Solution	Data & Analytics	IT Lead	External Labor	10,539	8,950	9,023	17,186	7,645	53,343	$1,234	$1,081	$1,134	$2,205	$1,005	$6,659
189	Solution	Data & Analytics	IT Manager	External Labor	1,003	837	842	1,597	705	4,984	$124	$107	$112	$216	$98	$657
190	Solution	Data & Analytics	Principal	External Labor	2,036	1,741	1,757	3,353	1,495	10,382	$233	$205	$216	$421	$192	$1,267
191	Solution	Data & Analytics	Scrum Master	External Labor	729	619	624	1,189	529	3,690	$85	$75	$78	$153	$70	$461
192	Solution	Data & Analytics	Solution Architect	External Labor	64	52	52	97	43	307	$8	$7	$7	$14	$6	$44
193		**Data & Analytics Subtotal**			**90,236**	**76,982**	**77,649**	**148,062**	**65,977**	**458,907**	**$10,418**	**$9,163**	**$9,623**	**$18,733**	**$8,549**	**$56,487**
194	Solution	Development, Integration, & Solution Delivery	Consultant (Other SI)	External Labor	30,300	56,819	24,789	48,169	15,835	175,911	$3,244	$6,136	$2,885	$5,569	$1,894	$19,727
195	Solution	Development, Integration, & Solution Delivery	Developer	External Labor	15,568	20,923	28,693	56,249	22,952	144,385	$1,667	$2,341	$3,320	$6,638	$2,773	$16,739
196	Solution	Development, Integration, & Solution Delivery	IT Analyst	External Labor	44,880	47,589	59,089	108,960	42,833	303,351	$5,303	$5,461	$6,595	$12,265	$4,913	$34,537
197	Solution	Development, Integration, & Solution Delivery	IT Architect	External Labor	11,785	14,190	18,761	35,787	14,362	94,885	$1,286	$1,576	$2,115	$4,108	$1,687	$10,772
198	Solution	Development, Integration, & Solution Delivery	IT Lead	External Labor	9,343	103,925	30,690	69,821	8,508	222,287	$1,378	$10,734	$3,434	$7,683	$1,064	$24,293
199	Solution	Development, Integration, & Solution Delivery	IT Manager	External Labor	6,999	4,514	2,707	3,762	1,242	19,225	$1,379	$882	$491	$644	$205	$3,601
200	Solution	Development, Integration, & Solution Delivery	Principal	External Labor	3,531	3,240	3,354	6,117	2,411	18,653	$579	$483	$447	$790	$311	$2,610
201	Solution	Development, Integration, & Solution Delivery	Scrum Master	External Labor	1,130	1,099	1,270	2,296	893	6,688	$150	$137	$147	$264	$104	$802
202	Solution	Development, Integration, & Solution Delivery	Solution Architect	External Labor	937	557	255	286	77	2,112	$194	$119	$57	$66	$18	$454
203		**Development, Integration, & Solution Delivery Subtotal**			**124,474**	**252,857**	**169,609**	**331,446**	**109,112**	**987,497**	**$15,179**	**$27,868**	**$19,491**	**$38,028**	**$12,969**	**$113,535**
204	Solution	Enterprise Health & Safety	Business Analyst	External Labor	17,409	5,891	-	-	-	23,300	$3,382	$1,172	-	-	-	$4,554
205	Solution	Enterprise Health & Safety	Business Lead	External Labor	1,246	422	-	-	-	1,668	$242	$84	-	-	-	$326
206	Solution	Enterprise Health & Safety	Business Manager	External Labor	925	313	-	-	-	1,238	$180	$62	-	-	-	$242
207	Solution	Enterprise Health & Safety	Principal	External Labor	1,227	415	-	-	-	1,643	$238	$83	-	-	-	$321
208	Solution	Enterprise Health & Safety	Solution Architect	External Labor	1,022	346	-	-	-	1,367	$198	$69	-	-	-	$267
209		**Enterprise Health & Safety Subtotal**			**21,829**	**7,387**	**-**	**-**	**-**	**29,216**	**$4,241**	**$1,470**	**-**	**-**	**-**	**$5,711**
210	Solution	Finance	Business Analyst	External Labor	24,477	15,231	15,632	35,916	23,365	114,620	$4,175	$2,695	$2,892	$6,772	$4,528	$21,061
211	Solution	Finance	Business Lead	External Labor	8,452	5,259	5,398	12,402	8,068	39,579	$1,442	$930	$999	$2,338	$1,563	$7,272
212	Solution	Finance	Business Manager	External Labor	1,788	1,112	1,142	2,623	1,706	8,371	$305	$197	$211	$495	$331	$1,538
213	Solution	Finance	Consultant (Other SI)	External Labor	32,679	40,981	19,401	44,575	28,998	166,635	$5,573	$7,201	$3,589	$8,405	$5,619	$30,387
214	Solution	Finance	Principal	External Labor	2,545	1,583	1,625	3,734	2,429	11,916	$434	$280	$301	$704	$471	$2,190
215		**Finance Subtotal**			**69,940**	**64,167**	**43,198**	**99,250**	**64,567**	**341,121**	**$11,928**	**$11,303**	**$7,992**	**$18,713**	**$12,511**	**$62,448**
216	Solution	Human Resources	Business Analyst	External Labor	35,815	18,379	9,400	31,502	31,988	127,084	$5,682	$2,992	$1,630	$5,598	$5,824	$21,726
217	Solution	Human Resources	Business Lead	External Labor	9,143	4,692	2,400	8,042	8,166	32,442	$1,451	$764	$416	$1,429	$1,487	$5,546
218	Solution	Human Resources	Business Manager	External Labor	569	292	149	500	508	2,019	$90	$48	$26	$89	$93	$345
219	Solution	Human Resources	Consultant (Other SI)	External Labor	16,875	17,163	2,286	7,662	7,781	51,768	$2,677	$2,790	$396	$1,362	$1,417	$8,642
220	Solution	Human Resources	IT Architect	External Labor	1,167	599	306	1,027	1,043	4,143	$185	$98	$53	$182	$190	$708
221	Solution	Human Resources	Principal	External Labor	2,251	1,155	591	1,980	2,011	7,988	$357	$188	$102	$352	$366	$1,366
222	Solution	Human Resources	Solution Architect	External Labor	937	481	246	824	836	3,323	$149	$78	$43	$146	$152	$568
223		**Human Resources Subtotal**			**66,758**	**42,760**	**15,378**	**51,537**	**52,333**	**228,766**	**$10,591**	**$6,957**	**$2,666**	**$9,159**	**$9,529**	**$38,902**
224	Solution	Integrated Planning	Business Analyst	External Labor	17,395	10,370	4,167	5,975	1,506	39,413	$3,844	$2,359	$994	$1,458	$376	$9,031
225	Solution	Integrated Planning	Business Lead	External Labor	2,192	1,307	525	753	190	4,967	$484	$297	$125	$184	$47	$1,138
226	Solution	Integrated Planning	Business Manager	External Labor	1,600	954	383	550	139	3,626	$354	$217	$91	$134	$35	$831
227	Solution	Integrated Planning	IT Analyst	External Labor	1,467	874	351	504	127	3,323	$324	$199	$84	$123	$32	$761
228	Solution	Integrated Planning	Principal	External Labor	2,072	1,235	496	712	179	4,695	$458	$281	$118	$174	$45	$1,076
229		**Integrated Planning Subtotal**			**24,727**	**14,740**	**5,923**	**8,493**	**2,141**	**56,023**	**$5,464**	**$3,354**	**$1,413**	**$2,072**	**$534**	**$12,838**
230	Solution	Supply Chain	Business Analyst	External Labor	38,613	50,153	50,506	83,579	23,383	246,233	$5,226	$7,063	$7,384	$12,439	$3,538	$35,651
231	Solution	Supply Chain	Business Lead	External Labor	8,908	11,570	11,651	19,281	5,394	56,804	$1,206	$1,629	$1,703	$2,870	$816	$8,224
232	Solution	Supply Chain	Consultant (Other SI)	External Labor	15,597	24,126	15,731	26,032	7,283	88,767	$2,111	$3,379	$2,300	$3,874	$1,102	$12,766
233	Solution	Supply Chain	Principal	External Labor	2,313	3,005	3,026	5,007	1,401	14,751	$313	$423	$442	$745	$212	$2,136
234	Solution	Supply Chain	Solution Architect	External Labor	773	1,004	1,011	1,674	468	4,931	$105	$141	$148	$249	$71	$714
235		**Supply Chain Subtotal**			**66,203**	**89,858**	**81,924**	**135,572**	**37,929**	**411,486**	**$8,960**	**$12,636**	**$11,978**	**$20,177**	**$5,739**	**$59,491**
236	Solution	Work and Asset Management	Business Analyst	External Labor	41,361	72,488	102,898	166,256	41,878	424,882	$6,518	$12,003	$17,510	$28,761	$7,341	$72,134
237	Solution	Work and Asset Management	Business Lead	External Labor	5,993	10,503	14,910	24,090	6,068	61,563	$944	$1,739	$2,537	$4,167	$1,064	$10,452
238	Solution	Work and Asset Management	Business Manager	External Labor	2,135	3,742	5,312	8,582	2,162	21,932	$336	$620	$904	$1,485	$379	$3,724
239	Solution	Work and Asset Management	Consultant (Other SI)	External Labor	26,953	48,915	35,233	56,927	14,339	182,367	$4,248	$7,999	$5,996	$9,848	$2,514	$30,604
240	Solution	Work and Asset Management	IT Analyst	External Labor	841	1,473	2,091	3,379	851	8,634	$132	$244	$356	$584	$149	$1,466
241	Solution	Work and Asset Management	Principal	External Labor	5,105	8,947	12,700	20,520	5,169	52,441	$805	$1,482	$2,161	$3,550	$906	$8,903
242	Solution	Work and Asset Management	Solution Architect	External Labor	39	68	97	157	40	401	$6	$11	$17	$27	$7	$68
243		**Work and Asset Management Subtotal**			**82,427**	**146,135**	**173,241**	**279,910**	**70,507**	**752,221**	**$12,990**	**$24,098**	**$29,480**	**$48,422**	**$12,360**	**$127,351**
244		**Grand Total**	**External Labor**		**546,593**	**694,885**	**566,922**	**1,054,270**	**402,566**	**3,265,236**	**$79,772**	**$96,849**	**$82,644**	**$155,304**	**$62,192**	**$476,761**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-1F
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Solution PG&E Labor Workpaper
Thousands of Dollars - Nominal

GIS — Solution PG&E Labor Workpaper

PROGRAM	GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Solution PG&E Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Solution	Data Migration & Conversion	Business Lead	PG&E Labor	$243	$273	$285	$296	-	$267	3.6	3.7	2.6	0.6	-	10.5
2	Solution	Data Migration & Conversion	IT Analyst	PG&E Labor	$242	$271	$283	$294	-	$269	2.7	3.3	3.3	0.9	-	10.2
3		**Data Migration & Conversion Subtotal**									**6.3**	**7.0**	**5.9**	**1.4**	**-**	**20.7**
4	Solution	Applications & Processes	Business Analyst	PG&E Labor	$190	$219	$234	$229	-	$216	32.7	47.0	33.6	6.0	-	119.3
5	Solution	Applications & Processes	Business Lead	PG&E Labor	$253	$273	$285	$296	-	$271	5.0	5.0	3.8	0.9	-	14.6
6	Solution	Applications & Processes	Business Manager	PG&E Labor	$249	$273	$285	$296	-	$273	2.9	3.5	3.5	0.9	-	10.7
7	Solution	Applications & Processes	IT Lead	PG&E Labor	$258	$271	$283	$294	-	$272	9.4	14.2	10.3	1.9	-	35.7
8	Solution	Applications & Processes	IT Analyst	PG&E Labor	$250	$271	$283	$294	-	$270	4.9	7.3	6.0	1.0	-	19.2
9	Solution	Applications & Processes	IT Manager	PG&E Labor	$248	$271	$283	$294	-	$271	0.8	1.1	1.1	0.3	-	3.3
10		**Applications & Processes Subtotal**									**55.7**	**78.1**	**58.3**	**10.8**	**-**	**202.9**
11			**FTE Subtotal**	**PG&E Labor**							**62.0**	**85.1**	**64.2**	**12.2**	**-**	**223.6**

					(C)						(D) = (A) * (C)					
GIS - Solution PG&E Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
12	Solution	Data Migration & Conversion	Business Lead	PG&E Labor	5,472	6,699	4,698	1,044	-	17,913	$1,432	$1,831	$1,341	$309	-	$4,913
13	Solution	Data Migration & Conversion	IT Analyst	PG&E Labor	4,114	5,904	6,000	1,560	-	17,578	$1,067	$1,599	$1,697	$458	-	$4,821
14		**Data Migration & Conversion Subtotal**			**9,586**	**12,603**	**10,698**	**2,604**	**-**	**35,491**	**$2,499**	**$3,430**	**$3,038**	**$767**	**-**	**$9,734**
15	Solution	Applications & Processes	Business Analyst	PG&E Labor	53,022	84,562	60,549	10,728	-	208,861	$10,569	$18,507	$14,163	$2,455	-	$45,695
16	Solution	Applications & Processes	Business Lead	PG&E Labor	8,300	9,048	6,786	1,566	-	25,700	$2,172	$2,473	$1,937	$464	-	$7,045
17	Solution	Applications & Processes	Business Manager	PG&E Labor	4,698	6,264	6,264	1,566	-	18,792	$1,229	$1,712	$1,788	$464	-	$5,193
18	Solution	Applications & Processes	IT Lead	PG&E Labor	16,725	25,539	18,524	3,346	-	64,134	$4,338	$6,918	$5,240	$982	-	$17,478
19	Solution	Applications & Processes	IT Analyst	PG&E Labor	8,033	13,226	10,803	1,718	-	33,780	$2,083	$3,583	$3,056	$504	-	$9,226
20	Solution	Applications & Processes	IT Manager	PG&E Labor	1,346	1,968	2,000	520	-	5,834	$349	$533	$566	$153	-	$1,601
21		**Applications & Processes Subtotal**			**92,124**	**140,607**	**104,926**	**19,444**	**-**	**357,101**	**$20,741**	**$33,725**	**$26,750**	**$5,022**	**-**	**$86,238**
22			**Capital Subtotal**	**PG&E Labor**	**101,711**	**153,210**	**115,624**	**22,048**	**-**	**392,592**	**$23,240**	**$37,155**	**$29,788**	**$5,789**	**-**	**$95,972**

					(E)						(F) = (A) * (E)					
GIS - Solution PG&E Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
23	Solution	Data Migration & Conversion	Business Lead	PG&E Labor	966	-	-	-	-	966	$133	-	-	-	-	$133
24	Solution	Data Migration & Conversion	IT Analyst	PG&E Labor	726	-	-	-	-	726	$105	-	-	-	-	$105
25		**Data Migration & Conversion Subtotal**			**1,692**	**-**	**-**	**-**	**-**	**1,692**	**$238**	**-**	**-**	**-**	**-**	**$238**
26	Solution	Applications & Processes	Business Analyst	PG&E Labor	5,891	-	-	-	-	5,891	$620	-	-	-	-	$620
27	Solution	Applications & Processes	Business Lead	PG&E Labor	661	-	-	-	-	661	$91	-	-	-	-	$91
28	Solution	Applications & Processes	Business Manager	PG&E Labor	522	-	-	-	-	522	$72	-	-	-	-	$72
29	Solution	Applications & Processes	IT Lead	PG&E Labor	167	-	-	-	-	167	$24	-	-	-	-	$24
30	Solution	Applications & Processes	IT Analyst	PG&E Labor	719	-	-	-	-	719	$104	-	-	-	-	$104
31	Solution	Applications & Processes	IT Manager	PG&E Labor	150	-	-	-	-	150	$22	-	-	-	-	$22
32		**Applications & Processes Subtotal**			**8,110**	**-**	**-**	**-**	**-**	**8,110**	**$933**	**-**	**-**	**-**	**-**	**$933**
33			**Expense Subtotal**	**PG&E Labor**	**9,802**	**-**	**-**	**-**	**-**	**9,802**	**$1,171**	**-**	**-**	**-**	**-**	**$1,171**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Solution PG&E Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
34	Solution	Data Migration & Conversion	Business Lead	PG&E Labor	6,438	6,699	4,698	1,044	-	18,879	$1,565	$1,831	$1,341	$309	-	$5,046
35	Solution	Data Migration & Conversion	IT Analyst	PG&E Labor	4,840	5,904	6,000	1,560	-	18,304	$1,172	$1,599	$1,697	$458	-	$4,927
36		**Data Migration & Conversion Subtotal**			**11,278**	**12,603**	**10,698**	**2,604**	**-**	**37,183**	**$2,737**	**$3,430**	**$3,038**	**$767**	**-**	**$9,973**
37	Solution	Applications & Processes	Business Analyst	PG&E Labor	58,914	84,562	60,549	10,728	-	214,752	$11,189	$18,507	$14,163	$2,455	-	$46,315
38	Solution	Applications & Processes	Business Lead	PG&E Labor	8,961	9,048	6,786	1,566	-	26,361	$2,263	$2,473	$1,937	$464	-	$7,136
39	Solution	Applications & Processes	Business Manager	PG&E Labor	5,220	6,264	6,264	1,566	-	19,314	$1,301	$1,712	$1,788	$464	-	$5,265
40	Solution	Applications & Processes	IT Lead	PG&E Labor	16,892	25,539	18,524	3,346	-	64,301	$4,362	$6,918	$5,240	$982	-	$17,502
41	Solution	Applications & Processes	IT Analyst	PG&E Labor	8,752	13,226	10,803	1,718	-	34,499	$2,187	$3,583	$3,056	$504	-	$9,331
42	Solution	Applications & Processes	IT Manager	PG&E Labor	1,496	1,968	2,000	520	-	5,984	$371	$533	$566	$153	-	$1,622
43		**Applications & Processes Subtotal**			**100,234**	**140,607**	**104,926**	**19,444**	**-**	**365,211**	**$21,674**	**$33,725**	**$26,750**	**$5,022**	**-**	**$87,171**
44			**Grand Total**	**PG&E Labor**	**111,512**	**153,210**	**115,624**	**22,048**	**-**	**402,394**	**$24,411**	**$37,155**	**$29,788**	**$5,789**	**-**	**$97,143**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-1G
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Solution External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

GIS — Solution External / Systems Integrator (SI) Labor Workpaper

PROGRAM	GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Solution External / SI Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Solution	Data Migration & Conversion	IT Lead	External Labor	$283	$232	$238	$243	-	$248	4.8	6.5	5.8	1.4	-	18.6
2	Solution	Data Migration & Conversion	IT Analyst	External Labor	$113	$99	$104	$105	-	$104	26.7	44.7	27.2	5.5	-	104.0
3	Solution	Data Migration & Conversion	GIS Developer	External Labor	$141	$143	$146	$150	-	$144	1.4	2.2	2.2	0.6	-	6.4
4	Solution	Data Migration & Conversion	GIS Lead	External Labor			$238	$243	-	$239	-	-	0.8	0.3	-	1.1
5		**Data Migration & Conversion Subtotal**									**32.9**	**53.4**	**36.0**	**7.8**	**-**	**130.1**
6	Solution	Applications & Processes	IT Lead	External Labor	$313	$200	$200	$202	-	$226	10.6	16.3	14.9	3.8	-	45.6
7	Solution	Applications & Processes	Principal	External Labor	$141	$120	$119	$120	-	$125	0.2	0.2	0.2	0.1	-	0.6
8	Solution	Applications & Processes	IT Analyst	External Labor	$338	$232	$238	$243	-	$261	41.8	66.0	52.2	12.2	-	172.1
9	Solution	Applications & Processes	IT Manager	External Labor	$71	$54	$55	$56	-	$59	0.8	1.1	1.1	0.3	-	3.3
10	Solution	Applications & Processes	GIS Developer	External Labor	$335	$232	$238	$243	-	$260	11.3	17.4	12.9	2.9	-	44.4
11	Solution	Applications & Processes	GIS Principal	External Labor	$319	$232	$238	$243	-	$257	0.8	1.1	1.1	0.3	-	3.3
12	Solution	Applications & Processes	GIS Lead	External Labor	$173	$131	$135	$139	-	$143	4.8	6.5	5.8	1.4	-	18.6
13		**Applications & Processes Subtotal**									**70.3**	**108.6**	**88.2**	**20.9**	**-**	**288.0**
14			**FTE Subtotal**	**External Labor**							**103.2**	**162.0**	**124.3**	**28.7**	**-**	**418.2**

					(C)						(D) = (A) * (C)					
GIS - Solution External / SI Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
15	Solution	Data Migration & Conversion	IT Lead	External Labor	7,398	11,772	10,468	2,600	-	32,238	$2,094	$2,731	$2,488	$632	-	$7,945
16	Solution	Data Migration & Conversion	IT Analyst	External Labor	40,838	80,440	48,920	9,880	-	180,078	$4,625	$7,991	$5,090	$1,042	-	$18,748
17	Solution	Data Migration & Conversion	GIS Developer	External Labor	2,108	3,920	4,000	1,040	-	11,068	$298	$560	$585	$156	-	$1,599
18	Solution	Data Migration & Conversion	GIS Lead	External Labor	-	-	1,480	520	-	2,000	-	-	$352	$126	-	$478
19		**Data Migration & Conversion Subtotal**			**50,344**	**96,132**	**64,868**	**14,040**	**-**	**225,384**	**$7,017**	**$11,282**	**$8,515**	**$1,956**	**-**	**$28,770**
20	Solution	Applications & Processes	IT Lead	External Labor	17,959	29,308	26,858	6,760	-	80,885	$5,531	$5,864	$5,365	$1,366	-	$18,126
21	Solution	Applications & Processes	Principal	External Labor	267	363	396	99	-	1,125	$103	$134	$150	$38	-	$425
22	Solution	Applications & Processes	IT Analyst	External Labor	71,352	118,758	93,901	21,897	-	305,908	$10,060	$14,195	$11,203	$2,635	-	$38,093
23	Solution	Applications & Processes	IT Manager	External Labor	1,448	1,960	2,000	520	-	5,928	$489	$455	$475	$126	-	$1,546
24	Solution	Applications & Processes	GIS Developer	External Labor	19,078	31,360	23,160	5,200	-	78,798	$1,355	$1,687	$1,276	$293	-	$4,610
25	Solution	Applications & Processes	GIS Principal	External Labor	1,448	1,960	2,000	520	-	5,928	$485	$455	$475	$126	-	$1,541
26	Solution	Applications & Processes	GIS Lead	External Labor	7,385	11,760	10,520	2,600	-	32,265	$2,358	$2,728	$2,500	$632	-	$8,219
27		**Applications & Processes Subtotal**			**118,937**	**195,469**	**158,835**	**37,596**	**-**	**510,837**	**$20,381**	**$25,518**	**$21,444**	**$5,217**	**-**	**$72,560**
28		**Applications & Processes Subtotal**	**Capital Subtotal**	**External Labor**	**169,281**	**291,601**	**223,703**	**51,636**	**-**	**736,221**	**$27,398**	**$36,800**	**$29,958**	**$7,173**	**-**	**$101,329**

Workpaper 3-1G
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ERP and GIS Transformation
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GIS — Solution External / Systems Integrator (SI) Labor Workpaper

PROGRAM	GIS
COST GROUP	Solution
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Solution forecast using the Vendor RFP and Competitive Solicitation, Fixed-Price-Contract, Resource-based, Unit-based, and SME Judgment methodologies described in Chapter 3, Section B.1.

					(E)						(F) = (A) * (E)					
GIS - Solution External / SI Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
29	Solution	Data Migration & Conversion	IT Lead	External Labor	1,305	-	-	-	-	1,305	$370	-	-	-	-	$370
30	Solution	Data Migration & Conversion	IT Analyst	External Labor	7,207	-	-	-	-	7,207	$816	-	-	-	-	$816
31	Solution	Data Migration & Conversion	GIS Developer	External Labor	372	-	-	-	-	372	$53	-	-	-	-	$53
32	Solution	Data Migration & Conversion	GIS Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
33		**Data Migration & Conversion Subtotal**			**8,884**	**-**	**-**	**-**	**-**	**8,884**	**$1,238**	**-**	**-**	**-**	**-**	**$1,238**
34	Solution	Applications & Processes	IT Lead	External Labor	1,163	-	-	-	-	1,163	$449	-	-	-	-	$449
35	Solution	Applications & Processes	Principal	External Labor	30	-	-	-	-	30	$11	-	-	-	-	$11
36	Solution	Applications & Processes	IT Analyst	External Labor	3,890	-	-	-	-	3,890	$587	-	-	-	-	$587
37	Solution	Applications & Processes	IT Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
38	Solution	Applications & Processes	GIS Developer	External Labor	1,209	-	-	-	-	1,209	$86	-	-	-	-	$86
39	Solution	Applications & Processes	GIS Principal	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
40	Solution	Applications & Processes	GIS Lead	External Labor	1,303	-	-	-	-	1,303	$416	-	-	-	-	$416
41		**Applications & Processes Subtotal**			**7,595**	**-**	**-**	**-**	**-**	**7,595**	**$1,549**	**-**	**-**	**-**	**-**	**$1,549**
42			**Expense Subtotal**	**External Labor**	**16,479**	**-**	**-**	**-**	**-**	**16,479**	**$2,788**	**-**	**-**	**-**	**-**	**$2,788**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Solution External / SI Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
43	Solution	Data Migration & Conversion	IT Lead	External Labor	8,703	11,772	10,468	2,600	-	33,543	$2,464	$2,731	$2,488	$632	-	$8,314
44	Solution	Data Migration & Conversion	IT Analyst	External Labor	48,045	80,440	48,920	9,880	-	187,285	$5,441	$7,991	$5,090	$1,042	-	$19,564
45	Solution	Data Migration & Conversion	GIS Developer	External Labor	2,480	3,920	4,000	1,040	-	11,440	$350	$560	$585	$156	-	$1,652
46	Solution	Data Migration & Conversion	GIS Lead	External Labor	-	-	1,480	520	-	2,000	-	-	$352	$126	-	$478
47		**Data Migration & Conversion Subtotal**			**59,228**	**96,132**	**64,868**	**14,040**	**-**	**234,268**	**$8,255**	**$11,282**	**$8,515**	**$1,956**	**-**	**$30,008**
48	Solution	Applications & Processes	IT Lead	External Labor	19,122	29,308	26,858	6,760	-	82,048	$5,980	$5,864	$5,365	$1,366	-	$18,575
49	Solution	Applications & Processes	Principal	External Labor	297	363	396	99	-	1,155	$114	$134	$150	$38	-	$436
50	Solution	Applications & Processes	IT Analyst	External Labor	75,242	118,758	93,901	21,897	-	309,798	$10,646	$14,195	$11,203	$2,635	-	$38,680
51	Solution	Applications & Processes	IT Manager	External Labor	1,448	1,960	2,000	520	-	5,928	$489	$455	$475	$126	-	$1,546
52	Solution	Applications & Processes	GIS Developer	External Labor	20,287	31,360	23,160	5,200	-	80,007	$1,440	$1,687	$1,276	$293	-	$4,696
53	Solution	Applications & Processes	GIS Principal	External Labor	1,448	1,960	2,000	520	-	5,928	$485	$455	$475	$126	-	$1,541
54	Solution	Applications & Processes	GIS Lead	External Labor	8,688	11,760	10,520	2,600	-	33,568	$2,774	$2,728	$2,500	$632	-	$8,635
55		**Applications & Processes Subtotal**			**126,532**	**195,469**	**158,835**	**37,596**	**-**	**518,432**	**$21,930**	**$25,518**	**$21,444**	**$5,217**	**-**	**$74,109**
56			**Grand Total**	**External Labor**	**185,760**	**291,601**	**223,703**	**51,636**	**-**	**752,700**	**$30,185**	**$36,800**	**$29,958**	**$7,173**	**-**	**$104,117**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-2
Pacific Gas and Electric Company
ERP and GIS Transformation
Technology Infrastructure and Software Cost Group Workpaper

WP #	Workpaper Name
	Summary WPs
3-2	Testimony Tables
3-2A	Technology Infrastructure and Software Workpaper Summary - (ERP and GIS)
	Detail WPs
3-2B	ERP - Technology Infrastructure and Software Workpaper
3-2C	GIS - Technology Infrastructure and Software Workpaper

Workpaper 3-2
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Technology Infrastructure and Software - Testimony Tables

TABLE 3-17
TECHNOLOGY INFRASTRUCTURE AND SOFTWARE COST GROUP - CAPITAL EXPENDITURES BY PLATFORM
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Platform	Recorded			Forecast					Total
		2023	2024	2025	2026	2027	2028	2029	2030	
1	ERP	$ -	$ 18.2	$ 16.7	$ 33.0	$ 34.6	$ 38.0	$ 49.4	$ 48.0	$ 237.9
2	GIS	-	-	1.7	8.5	22.3	19.0	4.3	-	55.7
3	**Total**	**$ -**	**$ 18.2**	**$ 18.4**	**$ 41.5**	**$ 56.9**	**$ 57.0**	**$ 53.7**	**$ 48.0**	**$ 293.6**

Workpaper 3-2
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Technology Infrastructure and Software - Testimony Tables

TABLE 3-31
SUMMARY OF O&M EXPENSE BY PLATFORM AND WORKSTREAM
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Workstream	2027	2028	2029	2030	Total
1	Technology Infrastructure and Software	$ 3.6	$ 10.2	$ 19.4	$ 30.7	$ 63.8
2	**ERP Total**	**$ 3.6**	**$ 10.2**	**$ 19.4**	**$ 30.7**	**$ 63.8**
3	Solution	$ 3.9	$ 5.5	$ 5.2	$ 4.9	$ 19.6
4	Technology Infrastructure and	$ 4.5	$ 31.4	$ 44.5	$ 41.7	$ 122.1
5	**GIS Total**	**$ 8.4**	**$ 36.9**	**$ 49.7**	**$ 46.6**	**$ 141.6**
6	**Total**	**$ 12.0**	**$ 47.0**	**$ 69.1**	**$ 77.3**	**$ 205.4**

TABLE 3-32
TECHNOLOGY INFRASTRUCTURE AND SOFTWARE O&M EXPENSE BY PLATFORM
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Platform	2027	2028	2029	2030	Total
1	ERP	$ 3.6	$ 10.2	$ 19.4	$ 30.7	$ 63.8
2	GIS	4.5	31.4	44.5	41.7	$ 122.1
3	**Total**	**$ 8.0**	**$ 41.5**	**$ 63.9**	**$ 72.4**	**$ 185.8**

Workpaper 3-2A
Pacific Gas and Electric Company
ERP and GIS Transformation
Technology Infrastructure and Software Workpaper Summary - (ERP and GIS)
Thousands of Dollars - Nominal

Technology Infrastructure and Software Cost Group Workpaper Summary — Combined

PROGRAM	ERP & GIS
COST GROUP	Technology Infrastructure and Software
WORKPAPER DESCRIPTION	Summary workpaper presenting annual capital, O&M, and total cost forecast by program and cost type.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 4 present forecast adjustments, including escalation, contingency, and AFUDC; and Table 5 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Technology Infrastructure and Software forecast using the Vendor RFP / Competitive Solicitation, and Unit-Based estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Cost Type	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	$9,737	$15,880	$22,334	$25,630	$32,283	$33,840	$139,705	-	-	-	-	$2,482	$7,426	$13,924	$22,508	$46,340	-	-	$9,737	$15,880	$24,815	$33,056	$46,207	$56,349	$186,045
2	ERP	Technology Infrastructure and Software	Infrastructure Foundational Setup	-	-	-	$5,850	-	-	-	-	$5,850	-	-	-	-	-	-	-	-	-	-	-	-	$5,850	-	-	-	-	$5,850
3	ERP	Technology Infrastructure and Software	Software Licensing	-	-	-	$2,663	$2,998	$3,292	$4,358	$4,092	$17,404	-	-	-	-	$333	$823	$1,868	$2,728	$5,752	-	-	-	$2,663	$3,331	$4,114	$6,226	$6,821	$23,156
4	ERP	Technology Infrastructure and Software	CyberSecurity	-	-	-	$1,523	-	-	-	-	$1,523	-	-	-	-	-	-	-	-	-	-	-	-	$1,523	-	-	-	-	$1,523
5	ERP	Technology Infrastructure and Software	Hosting Services	-	-	-	$883	$768	$578	$559	$267	$3,056	-	-	-	-	$85	$145	$240	$178	$648	-	-	-	$883	$853	$723	$798	$445	$3,703
6			**Software Subtotal**	-	-	**$9,737**	**$26,800**	**$26,100**	**$29,500**	**$37,200**	**$38,200**	**$167,537**	-	-	-	-	**$2,900**	**$8,394**	**$16,032**	**$25,415**	**$52,740**	-	-	**$9,737**	**$26,800**	**$29,000**	**$37,894**	**$53,232**	**$63,615**	**$220,277**
7	ERP	Technology Infrastructure and Software	Hardware	-	$18,234	$6,971	($7)	-	-	-	-	$25,198	-	-	-	-	-	-	-	-	-	-	$18,234	$6,971	($7)	-	-	-	-	$25,198
8			**Hardware Subtotal**	-	**$18,234**	**$6,971**	**($7)**	-	-	-	-	**$25,198**	-	-	-	-	-	-	-	-	-	-	**$18,234**	**$6,971**	**($7)**	-	-	-	-	**$25,198**
9			**ERP Total**	-	**$18,234**	**$16,708**	**$26,793**	**$26,100**	**$29,500**	**$37,200**	**$38,200**	**$192,735**	-	-	-	-	**$2,900**	**$8,394**	**$16,032**	**$25,415**	**$52,740**	-	**$18,234**	**$16,708**	**$26,793**	**$29,000**	**$37,894**	**$53,232**	**$63,615**	**$245,475**
10	GIS	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	-	$3,868	$14,841	$12,909	$2,720	-	$34,337	-	-	-	-	$558	$16,215	$27,453	$31,040	$75,267	-	-	-	$3,868	$15,399	$29,124	$30,173	$31,040	$109,604
11	GIS	Technology Infrastructure and Software	Software Licensing	-	-	$1,700	$2,969	$2,795	$2,015	$513	-	$9,992	-	-	-	-	$1,910	$7,100	$9,798	$10,692	$29,501	-	-	$1,700	$2,969	$4,706	$9,115	$10,311	$10,692	$39,493
12	GIS	Technology Infrastructure and Software	Hardware Licenses	-	-	-	-	-	-	-	-	-	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551
13			**Software Subtotal**	-	-	**$1,700**	**$6,836**	**$17,636**	**$14,923**	**$3,233**	-	**$44,329**	-	-	-	-	**$3,733**	**$26,127**	**$42,726**	**$41,732**	**$114,319**	-	-	**$1,700**	**$6,836**	**$21,370**	**$41,051**	**$45,959**	**$41,732**	**$158,648**
14			**GIS Total**	-	-	**$1,700**	**$6,836**	**$17,636**	**$14,923**	**$3,233**	-	**$44,329**	-	-	-	-	**$3,733**	**$26,127**	**$42,726**	**$41,732**	**$114,319**	-	-	**$1,700**	**$6,836**	**$21,370**	**$41,051**	**$45,959**	**$41,732**	**$158,648**
15			**Base Forecast Total**	-	**$18,234**	**$18,408**	**$33,630**	**$43,736**	**$44,423**	**$40,433**	**$38,200**	**$237,064**	-	-	-	-	**$6,633**	**$34,521**	**$58,758**	**$67,147**	**$167,059**	-	**$18,234**	**$18,408**	**$33,630**	**$50,370**	**$78,944**	**$99,191**	**$105,347**	**$404,124**

Table 2: Escalation

Line No.	Program	Cost Group	Cost Type	Escalation Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Escalation Expense 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Escalation 2023	2024	2025	2026	2027	2028	2029	2030	Total
16	ERP	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	-	$472	$539	$622	$734	$795	$3,162	-	-	-	-	$51	$65	$101	$126	$345	-	-	-	$472	$590	$687	$835	$922	$3,507
17	ERP	Technology Infrastructure and Software	Infrastructure Foundational Setup	-	-	-	$174	-	-	-	-	$174	-	-	-	-	-	-	-	-	-	-	-	-	$174	-	-	-	-	$174
18	ERP	Technology Infrastructure and Software	Software Licensing	-	-	-	$79	$72	$80	$99	$96	$427	-	-	-	-	$7	$8	$14	$15	$44	-	-	-	$79	$79	$88	$113	$111	$471
19	ERP	Technology Infrastructure and Software	CyberSecurity	-	-	-	$45	-	-	-	-	$45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	ERP	Technology Infrastructure and Software	Hosting Services	-	-	-	$26	$19	$14	$13	$6	$78	-	-	-	-	$2	$1	$2	$1	$6	-	-	-	$26	$20	$15	$14	$7	$84
21			**Software Subtotal**	-	-	-	**$797**	**$630**	**$716**	**$845**	**$898**	**$3,886**	-	-	-	-	**$60**	**$75**	**$117**	**$143**	**$395**	-	-	-	**$752**	**$699**	**$791**	**$962**	**$1,041**	**$4,235**
22	ERP	Technology Infrastructure and Software	Hardware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23			**Hardware Subtotal**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**$857**	**$789**	**$894**	**$1,090**	**$1,159**	**$4,790**
24			**ERP Total**	-	-	-	**$797**	**$630**	**$716**	**$845**	**$898**	**$3,886**	-	-	-	-	**$60**	**$75**	**$117**	**$143**	**$395**	-	-	-	**$1,609**	**$1,479**	**$1,685**	**$2,052**	**$2,200**	**$9,026**

Table 3: Base Forecast with Escalation

Line No.	Program	Cost Group	Cost Type	Base Capital Cost with Escalation Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost with Escalation Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost with Escalation Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
25	ERP	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	$9,737	$16,352	$22,873	$26,252	$33,017	$34,636	$142,867	-	-	-	-	$2,533	$7,491	$14,026	$22,635	$46,685	-	-	$9,737	$16,352	$25,406	$33,743	$47,042	$57,271	$189,552
26	ERP	Technology Infrastructure and Software	Infrastructure Foundational Setup	-	-	-	$6,024	-	-	-	-	$6,024	-	-	-	-	-	-	-	-	-	-	-	-	$6,024	-	-	-	-	$6,024
27	ERP	Technology Infrastructure and Software	Software Licensing	-	-	-	$2,743	$3,070	$3,371	$4,457	$4,189	$17,830	-	-	-	-	$340	$831	$1,882	$2,743	$5,796	-	-	-	$2,743	$3,410	$4,203	$6,339	$6,932	$23,626
28	ERP	Technology Infrastructure and Software	CyberSecurity	-	-	-	$1,568	-	-	-	-	$1,568	-	-	-	-	-	-	-	-	-	-	-	-	$1,523	-	-	-	-	$1,523
29	ERP	Technology Infrastructure and Software	Hosting Services	-	-	-	$910	$787	$592	$572	$274	$3,134	-	-	-	-	$87	$146	$241	$179	$654	-	-	-	$910	$874	$738	$813	$453	$3,787
30			**Software Subtotal**	-	-	**$9,737**	**$27,597**	**$26,730**	**$30,216**	**$38,045**	**$39,098**	**$171,423**	-	-	-	-	**$2,960**	**$8,469**	**$16,149**	**$25,557**	**$53,135**	-	-	**$9,737**	**$27,552**	**$29,690**	**$38,684**	**$54,194**	**$64,655**	**$224,513**
31	ERP	Technology Infrastructure and Software	Hardware	-	$18,234	$6,971	($7)	-	-	-	-	$25,198	-	-	-	-	-	-	-	-	-	-	$18,234	$6,971	($7)	-	-	-	-	$25,198
32			**Hardware Subtotal**	-	**$18,234**	**$6,971**	**($7)**	-	-	-	-	**$25,198**	-	-	-	-	-	-	-	-	-	-	**$18,234**	**$6,971**	**($7)**	-	-	-	-	**$25,198**
33			**ERP Total**	-	**$18,234**	**$16,708**	**$27,591**	**$26,730**	**$30,216**	**$38,045**	**$39,098**	**$196,621**	-	-	-	-	**$2,960**	**$8,469**	**$16,149**	**$25,557**	**$53,135**	-	**$18,234**	**$16,708**	**$27,545**	**$29,690**	**$38,684**	**$54,194**	**$64,655**	**$249,711**
34	GIS	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	-	$3,868	$14,841	$12,909	$2,720	-	$34,337	-	-	-	-	$558	$16,215	$27,453	$31,040	$75,267	-	-	-	$3,868	$15,399	$29,124	$30,173	$31,040	$109,604
35	GIS	Technology Infrastructure and Software	Software Licensing	-	-	$1,700	$2,969	$2,795	$2,015	$513	-	$9,992	-	-	-	-	$1,910	$7,100	$9,798	$10,692	$29,501	-	-	$1,700	$2,969	$4,706	$9,115	$10,311	$10,692	$39,493
36	GIS	Technology Infrastructure and Software	Hardware Licenses	-	-	-	-	-	-	-	-	-	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551
37			**Software Subtotal**	-	-	**$1,700**	**$6,836**	**$17,636**	**$14,923**	**$3,233**	-	**$44,329**	-	-	-	-	**$3,733**	**$26,127**	**$42,726**	**$41,732**	**$114,319**	-	-	**$1,700**	**$6,836**	**$21,370**	**$41,051**	**$45,959**	**$41,732**	**$158,648**
38			**GIS Total**	-	-	**$1,700**	**$6,836**	**$17,636**	**$14,923**	**$3,233**	-	**$44,329**	-	-	-	-	**$3,733**	**$26,127**	**$42,726**	**$41,732**	**$114,319**	-	-	**$1,700**	**$6,836**	**$21,370**	**$41,051**	**$45,959**	**$41,732**	**$158,648**
39			**Base Forecast Total**	-	**$18,234**	**$18,408**	**$34,427**	**$44,366**	**$45,139**	**$41,278**	**$39,098**	**$240,950**	-	-	-	-	**$6,693**	**$34,596**	**$58,875**	**$67,290**	**$167,454**	-	**$18,234**	**$18,408**	**$34,382**	**$51,059**	**$79,735**	**$100,153**	**$106,388**	**$408,359**

Table 4: Contingency & AFUDC

Line No.	Program	Cost Group	Cost Type	Contingency Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Contingency Expense 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Escalation 2023	2024	2025	2026	2027	2028	2029	2030	Total
40	ERP	Technology Infrastructure and Software	Contingency	-	-	-	$4,600	$5,353	$6,043	$7,612	$7,818	$31,426	-	-	-	-	$592	$1,694	$3,230	$5,111	$10,627	-	-	-	$4,600	$5,945	$7,737	$10,842	$12,930	$42,053
41	ERP	Technology Infrastructure and Software	AFUDC	-	-	-	$818	$2,546	$1,710	$3,729	$1,044	$9,847	-	-	-	-	-	-	-	-	-	-	-	-	$818	$2,546	$1,710	$3,729	$1,044	$9,847
42			**ERP Subtotal**	-	-	-	**$5,418**	**$7,899**	**$7,753**	**$11,341**	**$8,862**	**$41,272**	-	-	-	-	**$592**	**$1,694**	**$3,230**	**$5,111**	**$10,627**	-	-	-	**$5,418**	**$8,491**	**$9,446**	**$14,571**	**$13,973**	**$51,899**
43	GIS	Technology Infrastructure and Software	Contingency	-	-	-	$1,107	$3,527	$2,985	$484	-	$8,103	-	-	-	-	$747	$5,225	$1,774	-	$7,746	-	-	-	$1,107	$4,274	$8,210	$2,258	-	$15,849
44	GIS	Technology Infrastructure and Software	AFUDC	-	-	-	$509	$1,087	$1,086	$587	-	$3,268	-	-	-	-	-	-	-	-	-	-	-	-	$509	$1,087	$1,086	$587	-	$3,268
46			**GIS Subtotal**	-	-	-	**$1,616**	**$4,614**	**$4,070**	**$1,071**	-	**$11,372**	-	-	-	-	**$747**	**$5,225**	**$1,774**	-	**$7,746**	-	-	-	**$1,616**	**$5,361**	**$9,296**	**$2,845**	-	**$19,117**
47			**Base Total**	-	-	-	**$7,033**	**$12,513**	**$11,823**	**$12,412**	**$8,862**	**$52,644**	-	-	-	-	**$1,339**	**$6,919**	**$5,003**	**$5,111**	**$18,373**	-	-	-	**$7,033**	**$13,852**	**$18,742**	**$17,416**	**$13,973**	**$71,017**

Table 5: Total Forecast

Line No.	Program	Cost Group	Cost Type	Total Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
48	ERP	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	$9,737	$16,352	$22,873	$26,252	$33,017	$34,636	$142,867	-	-	-	-	$2,533	$7,491	$14,026	$22,635	$46,685	-	-	$9,737	$16,352	$25,406	$33,743	$47,042	$57,271	$189,552
49	ERP	Technology Infrastructure and Software	Infrastructure Foundational Setup	-	-	-	$6,024	-	-	-	-	$6,024	-	-	-	-	-	-	-	-	-	-	-	-	$6,024	-	-	-	-	$6,024
50	ERP	Technology Infrastructure and Software	Software Licensing	-	-	-	$2,743	$3,070	$3,371	$4,457	$4,189	$17,830	-	-	-	-	$340	$831	$1,882	$2,743	$5,796	-	-	-	$2,743	$3,410	$4,203	$6,339	$6,932	$23,626
51	ERP	Technology Infrastructure and Software	CyberSecurity	-	-	-	$1,568	-	-	-	-	$1,568	-	-	-	-	-	-	-	-	-	-	-	-	$1,568	-	-	-	-	$1,568
52	ERP	Technology Infrastructure and Software	Hosting Services	-	-	-	$910	$787	$592	$572	$274	$3,134	-	-	-	-	$87	$146	$241	$179	$654	-	-	-	$910	$874	$738	$813	$453	$3,787
53			**Software Subtotal**	-	-	**$9,737**	**$27,597**	**$26,730**	**$30,216**	**$38,045**	**$39,098**	**$171,423**	-	-	-	-	**$2,960**	**$8,469**	**$16,149**	**$25,557**	**$53,135**	-	-	**$9,737**	**$27,597**	**$29,690**	**$38,684**	**$54,194**	**$64,655**	**$224,558**
54	ERP	Technology Infrastructure and Software	Hardware	-	$18,234	$6,971	($7)	-	-	-	-	$25,198	-	-	-	-	-	-	-	-	-	-	$18,234	$6,971	($7)	-	-	-	-	$25,198
55			**Hardware Subtotal**	-	**$18,234**	**$6,971**	**($7)**	-	-	-	-	**$25,198**	-	-	-	-	-	-	-	-	-	-	**$18,234**	**$6,971**	**($7)**	-	-	-	-	**$25,198**
56	ERP	Technology Infrastructure and Software	Contingency	-	-	-	$4,600	$5,353	$6,043	$7,612	$7,818	$31,426	-	-	-	-	$592	$1,694	$3,230	$5,111	$10,627	-	-	-	$4,600	$5,945	$7,737	$10,842	$12,930	$42,053
57	ERP	Technology Infrastructure and Software	AFUDC	-	-	-	$818	$2,546	$1,710	$3,729	$1,044	$9,847	-	-	-	-	-	-	-	-	-	-	-	-	$818	$2,546	$1,710	$3,729	$1,044	$9,847
58			**ERP Contingency / AFUDC Subtotal**	-	-	-	**$5,418**	**$7,899**	**$7,753**	**$11,341**	**$8,862**	**$41,272**	-	-	-	-	**$592**	**$1,694**	**$3,230**	**$5,111**	**$10,627**	-	-	-	**$5,418**	**$8,491**	**$9,446**	**$14,571**	**$13,973**	**$51,899**
59			**ERP Total**	-	**$18,234**	**$16,708**	**$33,008**	**$34,629**	**$37,968**	**$49,386**	**$47,960**	**$237,893**	-	-	-	-	**$3,552**	**$10,162**	**$19,378**	**$30,669**	**$63,762**	-	**$18,234**	**$16,708**	**$33,008**	**$38,181**	**$48,131**	**$68,765**	**$78,629**	**$301,655**
60	GIS	Technology Infrastructure and Software	Software Licensing & Hosting Services	-	-	-	$3,868	$14,841	$12,909	$2,720	-	$34,337	-	-	-	-	$558	$16,215	$27,453	$31,040	$75,267	-	-	-	$3,868	$15,399	$29,124	$30,173	$31,040	$109,604
61	GIS	Technology Infrastructure and Software	Software Licensing	-	-	$1,700	$2,969	$2,795	$2,015	$513	-	$9,992	-	-	-	-	$1,910	$7,100	$9,798	$10,692	$29,501	-	-	$1,700	$2,969	$4,706	$9,115	$10,311	$10,692	$39,493
62	GIS	Technology Infrastructure and Software	Hardware Licensing	-	-	-	-	-	-	-	-	-	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551
63			**Software Subtotal**	-	-	**$1,700**	**$6,836**	**$17,636**	**$14,923**	**$3,233**	-	**$44,329**	-	-	-	-	**$3,733**	**$26,127**	**$42,726**	**$41,732**	**$114,319**	-	-	**$1,700**	**$6,836**	**$21,370**	**$41,051**	**$45,959**	**$41,732**	**$158,648**
64	GIS	Technology Infrastructure and Software	Contingency	-	-	-	$1,107	$3,527	$2,985	$484	-	$8,103	-	-	-	-	$747	$5,225	$1,774	-	$7,746	-	-	-	$1,107	$4,274	$8,210	$2,258	-	$15,849
65	GIS	Technology Infrastructure and Software	AFUDC	-	-	-	$509	$1,087	$1,086	$587	-	$3,268	-	-	-	-	-	-	-	-	-	-	-	-	$509	$1,087	$1,086	$587	-	$3,268
67			**GIS Contingency / AFUDC Subtotal**	-	-	-	**$1,616**	**$4,614**	**$4,070**	**$1,071**	-	**$11,372**	-	-	-	-	**$747**	**$5,225**	**$1,774**	-	**$7,746**	-	-	-	**$1,616**	**$5,361**	**$9,296**	**$2,845**	-	**$19,117**
68			**GIS Total**	-	-	**$1,700**	**$8,452**	**$22,251**	**$18,994**	**$4,304**	-	**$55,701**	-	-	-	-	**$4,480**	**$31,353**	**$44,500**	**$41,732**	**$122,065**	-	-	**$1,700**	**$8,452**	**$26,730**	**$50,347**	**$48,804**	**$41,732**	**$177,766**
69			**Grand Total**	-	**$18,234**	**$18,408**	**$41,460**	**$56,879**	**$56,962**	**$53,691**	**$47,960**	**$293,594**	-	-	-	-	**$8,032**	**$41,515**	**$63,878**	**$72,401**	**$185,827**	-	**$18,234**	**$18,408**	**$41,460**	**$64,911**	**$98,477**	**$117,569**	**$120,361**	**$479,421**

FOOTNOTES & ADDITIONAL EXPLANATIONS

ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-2B
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Technology Infrastructure and Software Workpaper
Thousands of Dollars - Nominal

ERP —Technology Infrastructure and Software Workpaper

PROGRAM	ERP
COST GROUP	Technology Infrastructure and Software
WORKPAPER DESCRIPTION	Detail workpaper presenting annual capital, O&M, and total cost forecast by program and cost type.
WORKPAPER FLOW	Not applicable
FORECAST METHODOLOGY	PG&E developed the Technology Infrastructure and Software forecast using the Vendor RFP / Competitive Solicitation, and Unit-Based estimating methodologies described in Chapter 3, Section B.1.

		Capital Forecast								Expense Forecast								Total Forecast							
Line No.	**Cost Type**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
1	Software Licensing & Hosting Services	-	$9,737	$16,352	$22,873	$26,252	$33,017	$34,636	$142,867	-	-	-	$2,533	$7,491	$14,026	$22,635	$46,685	-	$9,737	$16,352	$25,406	$33,743	$47,042	$57,271	$189,552
2	Infrastructure Foundational Setup	-	-	$6,024	-	-	-	-	$6,024	-	-	-	-	-	-	-	-	-	-	$6,024	-	-	-	-	$6,024
3	Software Licensing	-	-	$2,743	$3,070	$3,371	$4,457	$4,189	$17,830	-	-	-	$340	$831	$1,882	$2,743	$5,796	-	-	$2,743	$3,410	$4,203	$6,339	$6,932	$23,626
4	CyberSecurity	-	-	$1,568	-	-	-	-	$1,568	-	-	-	-	-	-	-	-	-	-	$1,568	-	-	-	-	$1,568
5	Hosting Services	-	-	$910	$787	$592	$572	$274	$3,134	-	-	-	$87	$146	$241	$179	$654	-	-	$910	$874	$738	$813	$453	$3,787
6	Hardware	$18,234	$6,971	($7)	-	-	-	-	$25,198	-	-	-					-	$18,234	$6,971	($7)	-	-	-	-	$25,198
7	Contingency	-	-	$4,600	$5,353	$6,043	$7,612	$7,818	$31,426	-	-	-	$592	$1,694	$3,230	$5,111	$10,627	-	-	$4,600	$5,945	$7,737	$10,842	$12,930	$42,053
8	AFUDC	-	-	$818	$2,546	$1,710	$3,729	$1,044	$9,847	-	-	-	-	-	-	-	-	-	-	$818	$2,546	$1,710	$3,729	$1,044	$9,847
9	**Grand Total**	**$18,234**	**$16,708**	**$33,008**	**$34,629**	**$37,968**	**$49,386**	**$47,960**	**$237,893**	**-**	**-**	**-**	**$3,552**	**$10,162**	**$19,378**	**$30,669**	**$63,762**	**$18,234**	**$16,708**	**$33,008**	**$38,181**	**$48,131**	**$68,765**	**$78,629**	**$301,655**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-2C
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Technology Infrastructure and Software Workpaper
Thousands of Dollars - Nominal

GIS — Technology Infrastructure and Software Workpaper

PROGRAM	GIS
COST GROUP	Technology Infrastructure and Software
WORKPAPER DESCRIPTION	Detail workpaper presenting annual capital, O&M, and total cost forecast by program and cost type.
WORKPAPER FLOW	Not applicable
FORECAST METHODOLOGY	PG&E developed the Technology Infrastructure and Software forecast using the Vendor RFP / Competitive Solicitation, and Unit-Based estimating methodologies described in Chapter 3, Section B.1.

		Capital Forecast							Expense Forecast							Total Forecast						
Line No.	**Cost Type**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
1	Software Licensing & Hosting Services	-	$3,868	$14,841	$12,909	$2,720	-	$34,337	-	-	$558	$16,215	$27,453	$31,040	$75,267	-	$3,868	$15,399	$29,124	$30,173	$31,040	$109,604
2	Software Licensing	$1,700	$2,969	$2,795	$2,015	$513	-	$9,992	-	-	$1,910	$7,100	$9,798	$10,692	$29,501	$1,700	$2,969	$4,706	$9,115	$10,311	$10,692	$39,493
3	Hardware Licenses	-	-	-	-	-	-	-	-	-	$1,264	$2,812	$5,475	-	$9,551	-	-	$1,264	$2,812	$5,475	-	$9,551
4	Contingency	-	$1,107	$3,527	$2,985	$484	-	$8,103	-	-	$747	$5,225	$1,774	-	$7,746	-	$1,107	$4,274	$8,210	$2,258	-	$15,849
5	AFUDC	-	$509	$1,087	$1,086	$587	-	$3,268	-	-	-	-	-	-	-	-	$509	$1,087	$1,086	$587	-	$3,268
6	**Grand Total**	**$1,700**	**$8,452**	**$22,251**	**$18,994**	**$4,304**	**-**	**$55,701**	**-**	**-**	**$4,480**	**$31,353**	**$44,500**	**$41,732**	**$122,065**	**$1,700**	**$8,452**	**$26,730**	**$50,347**	**$48,804**	**$41,732**	**$177,766**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3
Pacific Gas and Electric Company
ERP and GIS Transformation
Technology Enablement Cost Group Workpaper
Thousands of Dollars - Nominal

WP#	Workpaper Name
	Summary WPs
3-3	Testimony Tables
3-3A	Technology Enablement Workpaper Summary (ERP and GIS, All Labor Types)
3-3B	Technology Enablement PG&E Labor Summary Workpaper
3-3C	Technology Enablement External / Systems Integrator Labor Summary Workpaper
	Detail WPs - ERP
3-3D	ERP - Technology Enablement PG&E Labor Workpaper
3-3E	ERP - Technology Enablement External / Systems Integrator Labor Workpaper
	Detail WPs - GIS
3-3F	GIS - Technology Enablement PG&E Labor Workpaper
3-3G	GIS - Technology Enablement External / Systems Integrator Labor Workpaper

Workpaper 3-3
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Technology Enablement - Testimony Tables

TABLE 3-18
TECHNOLOGY ENABLEMENT COST GROUP - CAPITAL EXPENDITURES BY PLATFORM AND WORKSTREAM
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Workstream	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	Platform Arch and Security	$ 0.3	$ 1.1	$ 6.8	$ 18.8	$ 19.6	$ 14.4	$ 28.6	$ 11.8	$ 101.4
2	Controls and Compliance	0.1	0.4	2.3	7.6	7.3	4.3	8.6	3.6	34.2
3	**ERP Total**	**$ 0.4**	**$ 1.5**	**$ 9.1**	**$ 26.4**	**$ 26.9**	**$ 18.7**	**$ 37.2**	**$ 15.4**	**$ 135.6**
4	Platform Arch and Security	-	0.5	3.8	20.5	23.4	24.4	6.6	-	79.3
5	**GIS Total**	**$ -**	**$ 0.5**	**$ 3.8**	**$ 20.5**	**$ 23.4**	**$ 24.4**	**$ 6.6**	**$ -**	**$ 79.3**
6	**Total**	**$ 0.4**	**$ 2.0**	**$ 12.9**	**$ 46.9**	**$ 50.3**	**$ 43.0**	**$ 43.8**	**$ 15.4**	**$ 214.9**

TABLE 3-19
PLATFORM ARCHITECTURE AND SECURITY WORKSTREAM - CAPITAL EXPENDITURES BY PLATFORM
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Platform	2023	2024	2025	2026	2027	2028	2029	2030	Total
1										
2	ERP	$ 0.3	$ 1.1	$ 6.8	$ 18.8	$ 19.6	$ 14.4	$ 28.6	$ 11.8	$ 101.4
3	GIS	-	0.5	3.8	20.5	23.4	24.4	6.6	-	79.3
4	**Total**	**$ 0.3**	**$ 1.6**	**$ 10.6**	**$ 39.3**	**$ 43.1**	**$ 38.8**	**$ 35.2**	**$ 11.8**	**$ 180.7**

TABLE 3-20
PLATFORM ARCHITECTURE AND SECURITY WORKSTREAM - CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Labor Category	2023	2024	2025	2026	2027	2028	2029	2030	Total
1										
2	PG&E	$ 0.1	$ 0.8	$ 5.1	$ 19.4	$ 23.5	$ 20.0	$ 15.4	$ 4.8	$ 89.1
3	External	0.2	0.9	5.5	19.9	19.6	18.8	19.8	7.0	91.6
4	**Total**	**$ 0.3**	**$ 1.6**	**$ 10.6**	**$ 39.3**	**$ 43.1**	**$ 38.8**	**$ 35.2**	**$ 11.8**	**$ 180.7**

TABLE 3-21
CONTROLS AND COMPLIANCE WORKSTREAM - CAPITAL EXPENDITURES BY PLATFORM
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Platform	2023	2024	2025	2026	2027	2028	2029	2030	Total
1										
2	ERP	$ 0.1	$ 0.4	$ 2.3	$ 7.6	$ 7.3	$ 4.3	$ 8.6	$ 3.6	$ 34.2
3	GIS	-	-	-	-	-	-	-	-	-
4	**Total**	**$ 0.1**	**$ 0.4**	**$ 2.3**	**$ 7.6**	**$ 7.3**	**$ 4.3**	**$ 8.6**	**$ 3.6**	**$ 34.2**

TABLE 3-22
CONTROLS AND COMPLIANCE WORKSTREAM - CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Labor Category	2023	2024	2025	2026	2027	2028	2029	2030	Total
1										
2	PG&E	$ 0.0	$ 0.2	$ 1.1	$ 3.5	$ 4.2	$ 1.7	$ 3.5	$ 1.5	$ 15.7
3	External	0.0	0.2	1.2	4.1	3.0	2.5	5.1	2.2	18.4
4	**Total**	**$ 0.1**	**$ 0.4**	**$ 2.3**	**$ 7.6**	**$ 7.3**	**$ 4.3**	**$ 8.6**	**$ 3.6**	**$ 34.2**

Workpaper 3-3A
Pacific Gas and Electric Company
ERP and GIS Transformation
Technology Enablement Workpaper Summary (ERP and GIS, All Labor Types)
Thousands of Dollars - Nominal

Technology Enablement Cost Group Workpaper Summary — Combined

PROGRAM	ERP & GIS
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for combined PG&E and external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

				Annual Staffing (FTE)						Base Capital Cost Forecast								Base Expense Cost Forecast										Base Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Technology Enablement	Controls & Compliance	12.5	11.7	6.9	13.8	5.8	50.7	$91	$375	$2,294	$5,455	$5,504	$3,195	$6,535	$2,805	$26,255	-	-	-	-	-	-	-	-	-	$91	$375	$2,294	$5,455	$5,504	$3,195	$6,535	$2,805	$26,255
2	ERP	Technology Enablement	Platform Architecture & Security	39.2	39.0	28.7	56.6	23.3	186.9	$270	$1,114	$6,810	$13,327	$14,854	$10,824	$21,790	$9,171	$78,159	-	-	-	$718	-	-	-	-	$718	$270	$1,114	$6,810	$14,044	$14,854	$10,824	$21,790	$9,171	$78,877
3			**ERP Subtotal**	**51.7**	**50.8**	**35.6**	**70.5**	**29.0**	**237.6**	**$360**	**$1,490**	**$9,104**	**$18,782**	**$20,358**	**$14,019**	**$28,325**	**$11,976**	**$104,414**	-	-	-	**$718**	-	-	-	-	**$718**	**$360**	**$1,490**	**$9,104**	**$19,500**	**$20,358**	**$14,019**	**$28,325**	**$11,976**	**$105,131**
4	GIS	Technology Enablement	Platform Architecture & Security	37.7	52.1	51.7	12.9	-	154.4	-	$518	$3,839	$14,483	$17,689	$18,478	$4,674	-	$59,682	-	-	-	$672	-	-	-	-	$672	-	$518	$3,839	$15,155	$17,689	$18,478	$4,674	-	$60,353
5			**GIS Subtotal**	**37.7**	**52.1**	**51.7**	**12.9**	**-**	**154.4**	**-**	**$518**	**$3,839**	**$14,483**	**$17,689**	**$18,478**	**$4,674**	**-**	**$59,682**	**-**	**-**	**-**	**$672**	**-**	**-**	**-**	**-**	**$672**	**-**	**$518**	**$3,839**	**$15,155**	**$17,689**	**$18,478**	**$4,674**	**-**	**$60,353**
6			**Base Forecast Total**	**89.4**	**102.8**	**87.4**	**83.4**	**29.0**	**392.1**	**$360**	**$2,008**	**$12,944**	**$33,265**	**$38,046**	**$32,497**	**$32,998**	**$11,976**	**$164,095**	**-**	**-**	**-**	**$1,389**	**-**	**-**	**-**	**-**	**$1,389**	**$360**	**$2,008**	**$12,944**	**$34,655**	**$38,046**	**$32,497**	**$32,998**	**$11,976**	**$165,484**

Table 2: Contingencies

				Annual Staffing — No Adjustments						Adjustments - Capital Contingencies									Adjustments - Expense Contingencies										Adjustments - Total Contingencies								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
7	ERP	Technology Enablement	Controls & Compliance										$1,091	$1,101	$639	$1,307	$561	$4,699	-	-	-	-	-	-	-	-	-	-	-	-	$1,091	$1,101	$639	$1,307	$561	$4,699
8	ERP	Technology Enablement	Platform Architecture & Security										$2,665	$2,971	$2,165	$4,358	$1,834	$13,993	-	-	-	$144	-	-	-	-	$144	-	-	-	$2,809	$2,971	$2,165	$4,358	$1,834	$14,136
9			**ERP Subtotal**										**$3,756**	**$4,072**	**$2,804**	**$5,665**	**$2,395**	**$18,692**	**-**	**-**	**-**	**$144**	**-**	**-**	**-**	**-**	**$144**	**-**	**-**	**-**	**$3,900**	**$4,072**	**$2,804**	**$5,665**	**$2,395**	**$18,835**
10	GIS	Technology Enablement	Platform Architecture & Security										$2,897	$3,538	$3,696	$935	-	$11,065	-	-	-	$134	-	-	-	-	$134	-	-	-	$3,031	$3,538	$3,696	$935	-	$11,199
11			**GIS Subtotal**										**$2,897**	**$3,538**	**$3,696**	**$935**	**-**	**$11,065**	**-**	**-**	**-**	**$134**	**-**	**-**	**-**	**-**	**$134**	**-**	**-**	**-**	**$3,031**	**$3,538**	**$3,696**	**$935**	**-**	**$11,199**
12			**Contingencies Total**	**-**	**-**	**-**	**-**	**-**	**-**	**$ -**	**$ -**	**$ -**	**$6,653**	**$7,609**	**$6,499**	**$6,600**	**$2,395**	**$29,757**	**-**	**-**	**-**	**$278**	**-**	**-**	**-**	**-**	**$278**	**-**	**-**	**-**	**$6,931**	**$7,609**	**$6,499**	**$6,600**	**$2,395**	**$30,034**

Table 3: Meals and Travel

				Annual Staffing — No Adjustments						Adjustments - Meals and Travel Capital									Adjustments - Meals and Travel Expenses										Adjustments - Total Meals and Travel								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
13	ERP	Technology Enablement	Controls & Compliance										$271	$221	$173	$363	$152	$1,168	-	-	-	-	-	-	-	-	-	-	-	-	$271	$221	$173	$353	$152	$1,168
14	ERP	Technology Enablement	Platform Architecture & Security										$580	$593	$500	$1,007	$424	$3,105	-	-	-	$26	-	-	-	-	$26	-	-	-	$607	$593	$500	$1,007	$424	$3,131
15			**ERP Subtotal**										**$851**	**$814**	**$673**	**$1,360**	**$576**	**$4,273**	**-**	**-**	**-**	**$26**	**-**	**-**	**-**	**-**	**$26**	**-**	**-**	**-**	**$877**	**$814**	**$673**	**$1,360**	**$576**	**$4,299**
16	GIS	Technology Enablement	Platform Architecture & Security										$589	$675	$717	$190	-	$2,172	-	-	-	$52	-	-	-	-	$52	-	-	-	$641	$675	$717	$190	-	$2,223
17			**GIS Subtotal**										**$589**	**$675**	**$717**	**$190**	**-**	**$2,172**				**$52**	**-**	**-**	**-**	**-**	**$52**	**-**	**-**	**-**	**$641**	**$675**	**$717**	**$190**	**-**	**$2,223**
18			**Meals and Travel Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,440**	**$1,489**	**$1,390**	**$1,550**	**$576**	**$6,444**	**-**	**-**	**-**	**$78**	**-**	**-**	**-**	**-**	**$78**	**-**	**-**	**-**	**$1,518**	**$1,489**	**$1,390**	**$1,550**	**$576**	**$6,523**

Table 4: Allowance for Funds Using During Construction (AFUDC)

				Annual Staffing — No Adjustments						Capital AFUDC									Expense AFUDC										Total AFUDC								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
19	ERP	Technology Enablement	Controls & Compliance										$142	$441	$272	$437	$109	$1,401	-	-	-	-	-	-	-	-	-	-	-	-	$142	$441	$272	$437	$109	$1,401
20	ERP	Technology Enablement	Platform Architecture & Security										$369	$1,186	$895	$1,442	$374	$4,267	-	-	-	-	-	-	-	-	-	-	-	-	$369	$1,186	$895	$1,442	$374	$4,267
21			**ERP Subtotal**										**$512**	**$1,627**	**$1,167**	**$1,879**	**$483**	**$5,668**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$512**	**$1,627**	**$1,167**	**$1,879**	**$483**	**$5,668**
22	GIS	Technology Enablement	Platform Architecture & Security										$1,062	$1,548	$1,494	$813	-	$4,917	-	-	-	-	-	-	-	-	-	-	-	-	$1,062	$1,548	$1,494	$813	-	$4,917
23			**GIS Subtotal**										**$1,062**	**$1,548**	**$1,494**	**$813**	**-**	**$4,917**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,062**	**$1,548**	**$1,494**	**$813**	**-**	**$4,917**
24			**AFUDC Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,574**	**$3,175**	**$2,660**	**$2,693**	**$483**	**$10,585**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,574**	**$3,175**	**$2,660**	**$2,693**	**$483**	**$10,585**

Table 5: Other Adjustment (See Note 1 below)

				Annual Staffing — No Adjustments						Other Capital Adjustments [1]									Other Expense Adjustments [1]										Other Total Adjustments [1]								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
25	ERP	Technology Enablement	Controls & Compliance										$636	-	-	-	-	$636	-	-	-	-	-	-	-	-	-	-	-	-	$636	-	-	-	-	$636
26	ERP	Technology Enablement	Platform Architecture & Security										$1,887	-	-	-	-	$1,887	-	-	-	($887)	-	-	-	-	($887)	-	-	-	$1,000	-	-	-	-	$1,000
27			**ERP Subtotal**										**$2,523**	**-**	**-**	**-**	**-**	**$2,523**	**-**	**-**	**-**	**($887)**	**-**	**-**	**-**	**-**	**($887)**	**-**	**-**	**-**	**$1,636**	**-**	**-**	**-**	**-**	**$1,636**
28	GIS	Technology Enablement	Platform Architecture & Security										$1,466	-	-	-	-	$1,466	-	-	-	($858)	-	-	-	-	($858)	-	-	-	-	-	-	-	-	$608
29			**GIS Subtotal**										**$1,466**	**-**	**-**	**-**	**-**	**$1,466**	**-**	**-**	**-**	**($858)**	**-**	**-**	**-**	**-**	**($858)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$608**
30			**Other Adjustments Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$3,989**	**-**	**-**	**-**	**-**	**$3,989**	**-**	**-**	**-**	**($1,745)**	**-**	**-**	**-**	**-**	**($1,745)**	**-**	**-**	**-**	**$1,636**	**-**	**-**	**-**	**-**	**$2,244**

Table 6: Total Forecast

				Annual Staffing (FTE)						Total Capital Forecast									Total Expense Forecast										Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
31	ERP	Technology Enablement	Controls & Compliance	12.5	11.7	6.9	13.8	5.8	50.7	$91	$375	$2,294	$7,595	$7,266	$4,278	$8,632	$3,626	$34,158	-	-	-	-	-	-	-	-	-	$91	$375	$2,294	$7,595	$7,266	$4,278	$8,632	$3,626	$34,158
32	ERP	Technology Enablement	Platform Architecture & Security	39.2	39.0	28.7	56.6	23.3	186.9	$270	$1,114	$6,810	$18,830	$19,603	$14,384	$28,597	$11,803	$101,411	-	-	-	$718	-	-	-	-	$718	$270	$1,114	$6,810	$18,830	$19,603	$14,384	$28,597	$11,803	$101,411
33			**ERP Subtotal**	**51.7**	**50.8**	**35.6**	**70.5**	**29.0**	**237.6**	**$360**	**$1,490**	**$9,104**	**$26,424**	**$26,870**	**$18,662**	**$37,229**	**$15,430**	**$135,569**	**-**	**-**	**-**	**$718**	**-**	**-**	**-**	**-**	**$718**	**$360**	**$1,490**	**$9,104**	**$26,424**	**$26,870**	**$18,662**	**$37,229**	**$15,430**	**$135,569**
34	GIS	Technology Enablement	Platform Architecture & Security	37.7	52.1	51.7	12.9	-	154.4	-	$518	$3,839	$20,498	$23,449	$24,384	$6,612	-	$79,301	-	-	-	-	-	-	-	-	-	-	$518	$3,839	$20,498	$23,449	$24,384	$6,612	-	$79,301
35			**GIS Subtotal**	**37.7**	**52.1**	**51.7**	**12.9**	**-**	**154.4**	**-**	**$518**	**$3,839**	**$20,498**	**$23,449**	**$24,384**	**$6,612**	**-**	**$79,301**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$518**	**$3,839**	**$20,498**	**$23,449**	**$24,384**	**$6,612**	**-**	**$79,301**
36			**Technology Enablement Grand Total**	**89.4**	**102.8**	**87.4**	**83.4**	**29.0**	**392.1**	**$360**	**$2,008**	**$12,944**	**$46,922**	**$50,319**	**$43,047**	**$43,841**	**$15,430**	**$214,870**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$360**	**$2,008**	**$12,944**	**$46,922**	**$50,319**	**$43,047**	**$43,841**	**$15,430**	**$214,870**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3B
Pacific Gas and Electric Company
ERP and GIS Transformation
Technology Enablement PG&E Labor Summary Workpaper
Thousands of Dollars - Nominal

Technology Enablement Cost Group Workpaper Summary — PG&E Labor

PROGRAM	ERP & GIS
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Technology Enablement	Controls & Compliance	5.1	6.2	2.4	4.9	2.0	20.7	$42	$173	$1,056	$2,613	$3,321	$1,337	$2,738	$1,174	$12,454	-	-	-	-	-	-	-	-	-	$42	$173	$1,056	$2,613	$3,321	$1,337	$2,738	$1,174	$12,454
2	ERP	Technology Enablement	Platform Architecture & Security	13.8	15.3	8.4	16.6	6.8	60.9	$118	$487	$2,977	$6,149	$7,696	$4,553	$9,169	$3,853	$35,002	-	-	-	$408	-	-	-	-	$408	$118	$487	$2,977	$6,558	$7,696	$4,553	$9,169	$3,853	$35,410
3			**ERP Subtotal**	**18.9**	**21.5**	**10.9**	**21.5**	**8.8**	**81.6**	**$160**	**$660**	**$4,033**	**$8,763**	**$11,017**	**$5,891**	**$11,906**	**$5,026**	**$47,456**	-	-	-	**$408**	-	-	-	-	**$408**	**$160**	**$660**	**$4,033**	**$9,171**	**$11,017**	**$5,891**	**$11,906**	**$5,026**	**$47,864**
4	GIS	Technology Enablement	Platform Architecture & Security	19.1	23.7	22.6	5.2	-	70.6	-	$293	$2,168	$7,927	$10,559	$10,909	$2,635	-	$34,490	-	-	-	$115	-	-	-	-	$115	-	$293	$2,168	$8,042	$10,559	$10,909	$2,635	-	$34,605
5			**GIS Subtotal**	**19.1**	**23.7**	**22.6**	**5.2**	**-**	**70.6**	**-**	**$293**	**$2,168**	**$7,927**	**$10,559**	**$10,909**	**$2,635**	**-**	**$34,490**	**-**	**-**	**-**	**$115**	**-**	**-**	**-**	**-**	**$115**	**-**	**$293**	**$2,168**	**$8,042**	**$10,559**	**$10,909**	**$2,635**	**-**	**$34,605**
6			**Base Forecast Total**	**38.0**	**45.2**	**33.4**	**26.7**	**8.8**	**152.2**	**$160**	**$953**	**$6,201**	**$16,689**	**$21,576**	**$16,800**	**$14,541**	**$5,026**	**$81,946**	**-**	**-**	**-**	**$523**	**-**	**-**	**-**	**-**	**$523**	**$160**	**$953**	**$6,201**	**$17,213**	**$21,576**	**$16,800**	**$14,541**	**$5,026**	**$82,469**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
7	ERP	Technology Enablement	Controls & Compliance										$523	$664	$267	$548	$235	$2,237	-	-	-	-	-	-	-	-	-	-	-	-	$523	$664	$267	$548	$235	$2,237
8	ERP	Technology Enablement	Platform Architecture & Security										$1,230	$1,539	$911	$1,834	$771	$6,284	-	-	-	$82	-	-	-	-	$82	-	-	-	$1,312	$1,539	$911	$1,834	$771	$6,366
9			**ERP Subtotal**										**$1,753**	**$2,203**	**$1,178**	**$2,381**	**$1,005**	**$8,521**	**-**	**-**	**-**	**$82**	**-**	**-**	**-**	**-**	**$82**	**-**	**-**	**-**	**$1,834**	**$2,203**	**$1,178**	**$2,381**	**$1,005**	**$8,602**
10	GIS	Technology Enablement	Platform Architecture & Security										$1,585	$2,112	$2,182	$527	-	$6,406	-	-	-	$23	-	-	-	-	$23	-	-	-	$1,608	$2,112	$2,182	$527	-	$6,429
11			**GIS Subtotal**										**$1,585**	**$2,112**	**$2,182**	**$527**	**-**	**$6,406**	**-**	**-**	**-**	**$23**	**-**	**-**	**-**	**-**	**$23**	**-**	**-**	**-**	**$1,608**	**$2,112**	**$2,182**	**$527**	**-**	**$6,429**
12			**Contingencies Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$3,338**	**$4,315**	**$3,360**	**$2,908**	**$1,005**	**$14,926**	**-**	**-**	**-**	**$105**	**-**	**-**	**-**	**-**	**$105**	**-**	**-**	**-**	**$3,443**	**$4,315**	**$3,360**	**$2,908**	**$1,005**	**$15,031**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
13	ERP	Technology Enablement	Controls & Compliance										$26	$33	$13	$27	$12	$112	-	-	-	-	-	-	-	-	-	-	-	-	$26	$33	$13	$27	$12	$112
14	ERP	Technology Enablement	Platform Architecture & Security										$61	$77	$46	$92	$39	$314	-	-	-	$4	-	-	-	-	$4	-	-	-	$66	$77	$46	$92	$39	$318
15			**ERP Subtotal**										**$88**	**$110**	**$59**	**$119**	**$50**	**$426**	**-**	**-**	**-**	**$4**	**-**	**-**	**-**	**-**	**$4**	**-**	**-**	**-**	**$92**	**$110**	**$59**	**$119**	**$50**	**$430**
16	GIS	Technology Enablement	Platform Architecture & Security										$78	$104	$108	$26	-	$317	-	-	-	$1	-	-	-	-	$1	-	-	-	$79	$104	$108	$26	-	$318
17			**GIS Subtotal**										**$78**	**$104**	**$108**	**$26**	**-**	**$317**	**-**	**-**	**-**	**$1**	**-**	**-**	**-**	**-**	**$1**	**-**	**-**	**-**	**$79**	**$104**	**$108**	**$26**	**-**	**$318**
18			**Meals and Travel Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$166**	**$214**	**$167**	**$145**	**$50**	**$743**	**-**	**-**	**-**	**$5**	**-**	**-**	**-**	**-**	**$5**	**-**	**-**	**-**	**$171**	**$214**	**$167**	**$145**	**$50**	**$748**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
19	ERP	Technology Enablement	Controls & Compliance										$65	$200	$123	$199	$49	$636	-	-	-	-	-	-	-	-	-	-	-	-	$65	$200	$123	$199	$49	$636
20	ERP	Technology Enablement	Platform Architecture & Security										$164	$526	$400	$644	$168	$1,901	-	-	-	-	-	-	-	-	-	-	-	-	$164	$526	$400	$644	$168	$1,901
21			**ERP Subtotal**										**$228**	**$726**	**$523**	**$843**	**$217**	**$2,538**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$228**	**$726**	**$523**	**$843**	**$217**	**$2,538**
22	GIS	Technology Enablement	Platform Architecture & Security										$575	$866	$843	$458	-	$2,741	-	-	-	-	-	-	-	-	-	-	-	-	$575	$866	$843	$458	-	$2,741
23			**GIS Subtotal**										**$575**	**$866**	**$843**	**$458**	**-**	**$2,741**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$575**	**$866**	**$843**	**$458**	**-**	**$2,741**
24			**AFUDC Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$803**	**$1,592**	**$1,366**	**$1,301**	**$217**	**$5,278**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$803**	**$1,592**	**$1,366**	**$1,301**	**$217**	**$5,278**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
25	ERP	Technology Enablement	Controls & Compliance										$293	-	-	-	-	$293	-	-	-	-	-	-	-	-	-	-	-	-	$293	-	-	-	-	$293
26	ERP	Technology Enablement	Platform Architecture & Security										$825	-	-	-	-	$825	-	-	-	($494)	-	-	-	-	($494)	-	-	-	$331	-	-	-	-	$331
27			**ERP Subtotal**										**$1,118**	**-**	**-**	**-**	**-**	**$1,118**	**-**	**-**	**-**	**($494)**	**-**	**-**	**-**	**-**	**($494)**	**-**	**-**	**-**	**$624**	**-**	**-**	**-**	**-**	**$624**
28	GIS	Technology Enablement	Platform Architecture & Security										$828	-	-	-	-	$828	-	-	-	($139)	-	-	-	-	($139)	-	-	-	$689	-	-	-	-	$689
29			**GIS Subtotal**										**$828**	**-**	**-**	**-**	**-**	**$828**	**-**	**-**	**-**	**($139)**	**-**	**-**	**-**	**-**	**($139)**	**-**	**-**	**-**	**$689**	**-**	**-**	**-**	**-**	**$689**
30			**Other Adjustments Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,946**	**-**	**-**	**-**	**-**	**$1,946**	**-**	**-**	**-**	**($633)**	**-**	**-**	**-**	**-**	**($633)**	**-**	**-**	**-**	**$1,313**	**-**	**-**	**-**	**-**	**$1,313**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
31	ERP	Technology Enablement	Controls & Compliance	5.1	6.2	2.4	4.9	2.0	20.7	$42	$173	$1,056	$3,519	$4,218	$1,742	$3,511	$1,469	$15,731	-	-	-	-	-	-	-	-	-	$42	$173	$1,056	$3,519	$4,218	$1,742	$3,511	$1,469	$15,731
32	ERP	Technology Enablement	Platform Architecture & Security	13.8	15.3	8.4	16.6	6.8	60.9	$118	$487	$2,977	$8,429	$9,838	$5,910	$11,738	$4,829	$44,326	-	-	-	-	-	-	-	-	-	$118	$487	$2,977	$8,429	$9,838	$5,910	$11,738	$4,829	$44,326
33			**ERP Subtotal**	**18.9**	**21.5**	**10.9**	**21.5**	**8.8**	**81.6**	**$160**	**$660**	**$4,033**	**$11,949**	**$14,056**	**$7,651**	**$15,250**	**$6,299**	**$60,057**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$160**	**$660**	**$4,033**	**$11,949**	**$14,056**	**$7,651**	**$15,250**	**$6,299**	**$60,057**
34	GIS	Technology Enablement	Platform Architecture & Security	19.1	23.7	22.6	5.2	-	70.6	-	$293	$2,168	$10,993	$13,640	$14,042	$3,646	-	$44,782	-	-	-	-	-	-	-	-	-	-	$293	$2,168	$10,993	$13,640	$14,042	$3,646	-	$44,782
35			**GIS Subtotal**	**19.1**	**23.7**	**22.6**	**5.2**	**-**	**70.6**	**-**	**$293**	**$2,168**	**$10,993**	**$13,640**	**$14,042**	**$3,646**	**-**	**$44,782**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$293**	**$2,168**	**$10,993**	**$13,640**	**$14,042**	**$3,646**	**-**	**$44,782**
36			**Technology Enablement Grand Total**	**38.0**	**45.2**	**33.4**	**26.7**	**8.8**	**152.2**	**$160**	**$953**	**$6,201**	**$22,942**	**$27,697**	**$21,693**	**$18,896**	**$6,299**	**$104,839**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$160**	**$953**	**$6,201**	**$22,942**	**$27,697**	**$21,693**	**$18,896**	**$6,299**	**$104,839**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3C
Pacific Gas and Electric Company
ERP and GIS Transformation
Technology Enablement External / Systems Integrator Labor Summary Workpaper
Thousands of Dollars - Nominal

Technology Enablement Cost Group Workpaper Summary — External / Systems Integrator Labor

PROGRAM	ERP & GIS
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Technology Enablement	Controls & Compliance	7.4	5.5	4.5	9.0	3.8	30.0	$49	$202	$1,237	$2,842	$2,183	$1,858	$3,797	$1,632	$13,801	-	-	-	-	-	-	-	-	-	$49	$202	$1,237	$2,842	$2,183	$1,858	$3,797	$1,632	$13,801
2	ERP	Technology Enablement	Platform Architecture & Security	25.5	23.8	20.3	40.1	16.5	126.0	$152	$627	$3,834	$7,178	$7,158	$6,270	$12,621	$5,318	$43,157	-	-	-	$309	-	-	-	-	$309	$152	$627	$3,834	$7,487	$7,158	$6,270	$12,621	$5,318	$43,466
3			**ERP Subtotal**	**32.9**	**29.2**	**24.8**	**49.0**	**20.2**	**156.1**	**$201**	**$830**	**$5,071**	**$10,019**	**$9,341**	**$8,128**	**$16,419**	**$6,949**	**$56,958**	-	-	-	**$309**	-	-	-	-	**$309**	**$201**	**$830**	**$5,071**	**$10,329**	**$9,341**	**$8,128**	**$16,419**	**$6,949**	**$57,267**
4	GIS	Technology Enablement	Platform Architecture & Security	18.6	28.4	29.2	7.7	-	83.8	-	$226	$1,671	$6,556	$7,130	$7,569	$2,038	-	$25,191	-	-	-	$557	-	-	-	-	$557	-	$226	$1,671	$7,113	$7,130	$7,569	$2,038	-	$25,748
5			**GIS Subtotal**	**18.6**	**28.4**	**29.2**	**7.7**	**-**	**83.8**	**-**	**$226**	**$1,671**	**$6,556**	**$7,130**	**$7,569**	**$2,038**	**-**	**$25,191**	**-**	**-**	**-**	**$557**	**-**	**-**	**-**	**-**	**$557**	**-**	**$226**	**$1,671**	**$7,113**	**$7,130**	**$7,569**	**$2,038**	**-**	**$25,748**
6			**Base Forecast Total**	**51.5**	**57.6**	**53.9**	**56.7**	**20.2**	**239.9**	**$201**	**$1,055**	**$6,742**	**$16,576**	**$16,471**	**$15,697**	**$18,457**	**$6,949**	**$82,149**	**-**	**-**	**-**	**$866**	**-**	**-**	**-**	**-**	**$866**	**$201**	**$1,055**	**$6,742**	**$17,442**	**$16,471**	**$15,697**	**$18,457**	**$6,949**	**$83,015**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
7	ERP	Technology Enablement	Controls & Compliance										$568	$437	$372	$759	$326	$2,462	-	-	-	-	-	-	-	-	-	-	-	-	$568	$437	$372	$759	$326	$2,462
8	ERP	Technology Enablement	Platform Architecture & Security										$1,436	$1,432	$1,254	$2,524	$1,064	$7,709	-	-	-	$62	-	-	-	-	$62	-	-	-	$1,497	$1,432	$1,254	$2,524	$1,064	$7,771
9			**ERP Subtotal**										**$2,004**	**$1,868**	**$1,626**	**$3,284**	**$1,390**	**$10,171**	**-**	**-**	**-**	**$62**	**-**	**-**	**-**	**-**	**$62**	**-**	**-**	**-**	**$2,066**	**$1,868**	**$1,626**	**$3,284**	**$1,390**	**$10,233**
10	GIS	Technology Enablement	Platform Architecture & Security										$1,311	$1,426	$1,514	$408	-	$4,659	-	-	-	$111	-	-	-	-	$111	-	-	-	$1,423	$1,426	$1,514	$408	-	$4,770
11			**GIS Subtotal**										**$1,311**	**$1,426**	**$1,514**	**$408**	**-**	**$4,659**	**-**	**-**	**-**	**$111**	**-**	**-**	**-**	**-**	**$111**	**-**	**-**	**-**	**$1,423**	**$1,426**	**$1,514**	**$408**	**-**	**$4,770**
12			**Contingencies Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$3,316**	**$3,294**	**$3,139**	**$3,691**	**$1,390**	**$14,830**	**-**	**-**	**-**	**$173**	**-**	**-**	**-**	**-**	**$173**	**-**	**-**	**-**	**$3,488**	**$3,294**	**$3,139**	**$3,691**	**$1,390**	**$15,003**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
13	ERP	Technology Enablement	Controls & Compliance										$244	$187	$159	$325	$140	$1,056	-	-	-	-	-	-	-	-	-	-	-	-	$244	$187	$159	$325	$140	$1,056
14	ERP	Technology Enablement	Platform Architecture & Security										$519	$516	$455	$915	$386	$2,791	-	-	-	$22	-	-	-	-	$22	-	-	-	$541	$516	$455	$915	$386	$2,813
15			**ERP Subtotal**										**$763**	**$704**	**$614**	**$1,241**	**$525**	**$3,847**	**-**	**-**	**-**	**$22**	**-**	**-**	**-**	**-**	**$22**	**-**	**-**	**-**	**$786**	**$704**	**$614**	**$1,241**	**$525**	**$3,869**
16	GIS	Technology Enablement	Platform Architecture & Security										$511	$571	$609	$164	-	$1,855	-	-	-	$51	-	-	-	-	$51	-	-	-	$562	$571	$609	$164	-	$1,905
17			**GIS Subtotal**										**$511**	**$571**	**$609**	**$164**	**-**	**$1,855**	**-**	**-**	**-**	**$51**	**-**	**-**	**-**	**-**	**$51**	**-**	**-**	**-**	**$562**	**$571**	**$609**	**$164**	**-**	**$1,905**
18			**Meals and Travel Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,275**	**$1,274**	**$1,222**	**$1,405**	**$525**	**$5,702**	**-**	**-**	**-**	**$73**	**-**	**-**	**-**	**-**	**$73**	**-**	**-**	**-**	**$1,347**	**$1,274**	**$1,222**	**$1,405**	**$525**	**$5,774**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
19	ERP	Technology Enablement	Controls & Compliance										$78	$241	$148	$239	$59	$764	-	-	-	-	-	-	-	-	-	-	-	-	$78	$241	$148	$239	$59	$764
20	ERP	Technology Enablement	Platform Architecture & Security										$206	$660	$495	$798	$207	$2,366	-	-	-	-	-	-	-	-	-	-	-	-	$206	$660	$495	$798	$207	$2,366
21			**ERP Subtotal**										**$284**	**$901**	**$643**	**$1,036**	**$266**	**$3,130**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$284**	**$901**	**$643**	**$1,036**	**$266**	**$3,130**
22	GIS	Technology Enablement	Platform Architecture & Security										$488	$682	$651	$355	-	$2,176	-	-	-	-	-	-	-	-	-	-	-	-	$488	$682	$651	$355	-	$2,176
23			**GIS Subtotal**										**$488**	**$682**	**$651**	**$355**	**-**	**$2,176**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$488**	**$682**	**$651**	**$355**	**-**	**$2,176**
24			**AFUDC Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$771**	**$1,583**	**$1,294**	**$1,392**	**$266**	**$5,306**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$771**	**$1,583**	**$1,294**	**$1,392**	**$266**	**$5,306**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
25	ERP	Technology Enablement	Controls & Compliance										$343	-	-	-	-	$343	-	-	-	-					-	-	-	-	$343	-	-	-	-	$343
26	ERP	Technology Enablement	Platform Architecture & Security										$1,062	-	-	-	-	$1,062	-	-	-	($393)					($393)	-	-	-	$669	-	-	-	-	$669
27			**ERP Subtotal**										**$1,405**	**-**	**-**	**-**	**-**	**$1,405**	**-**	**-**	**-**	**($393)**	**-**	**-**	**-**	**-**	**($393)**	**-**	**-**	**-**	**$1,012**	**-**	**-**	**-**	**-**	**$1,012**
28	GIS	Technology Enablement	Platform Architecture & Security										$638	-	-	-	-	$638	-	-	-	($719)	-	-	-	-	($719)	-	-	-	($81)	-	-	-	-	($81)
29			**GIS Subtotal**										**$638**	**-**	**-**	**-**	**-**	**$638**	**-**	**-**	**-**	**($719)**	**-**	**-**	**-**	**-**	**($719)**	**-**	**-**	**-**	**($81)**	**-**	**-**	**-**	**-**	**($81)**
30			**Other Adjustments Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$2,043**	**-**	**-**	**-**	**-**	**$2,043**	**-**	**-**	**-**	**($1,112)**	**-**	**-**	**-**	**-**	**($1,112)**	**-**	**-**	**-**	**$931**	**-**	**-**	**-**	**-**	**$931**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
31	ERP	Technology Enablement	Controls & Compliance	7.4	5.5	4.5	9.0	3.8	30.0	$49	$202	$1,237	$4,075	$3,048	$2,537	$5,121	$2,157	$18,427	-	-	-	-	-	-	-	-	-	$49	$202	$1,237	$4,075	$3,048	$2,537	$5,121	$2,157	$18,427
32	ERP	Technology Enablement	Platform Architecture & Security	25.5	23.8	20.3	40.1	16.5	126.0	$152	$627	$3,834	$10,400	$9,766	$8,474	$16,858	$6,974	$57,085	-	-	-	-	-	-	-	-	-	$152	$627	$3,834	$10,400	$9,766	$8,474	$16,858	$6,974	$57,085
33			**ERP Subtotal**	**32.9**	**29.2**	**24.8**	**49.0**	**20.2**	**156.1**	**$201**	**$830**	**$5,071**	**$14,475**	**$12,813**	**$11,011**	**$21,979**	**$9,131**	**$75,512**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$201**	**$830**	**$5,071**	**$14,475**	**$12,813**	**$11,011**	**$21,979**	**$9,131**	**$75,512**
34	GIS	Technology Enablement	Platform Architecture & Security	18.6	28.4	29.2	7.7	-	83.8	-	$226	$1,671	$9,505	$9,809	$10,343	$2,966	-	$34,519	-	-	-	-	-	-	-	-	-	-	$226	$1,671	$9,505	$9,809	$10,343	$2,966	-	$34,519
35			**GIS Subtotal**	**18.6**	**28.4**	**29.2**	**7.7**	**-**	**83.8**	**-**	**$226**	**$1,671**	**$9,505**	**$9,809**	**$10,343**	**$2,966**	**-**	**$34,519**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$226**	**$1,671**	**$9,505**	**$9,809**	**$10,343**	**$2,966**	**-**	**$34,519**
36			**Technology Enablement Grand Total**	**51.5**	**57.6**	**53.9**	**56.7**	**20.2**	**239.9**	**$201**	**$1,055**	**$6,742**	**$23,980**	**$22,622**	**$21,354**	**$24,945**	**$9,131**	**$110,031**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$201**	**$1,055**	**$6,742**	**$23,980**	**$22,622**	**$21,354**	**$24,945**	**$9,131**	**$110,031**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Technology Enablement PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Technology Enablement PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

ERP - Technology Enablement PG&E Labor					(A) Staffing Rate $/HR						(B) Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Technology Enablement	Controls & Compliance	Business Analyst	PG&E Labor	$288	$301	$316	$324	$333	$304	3.0	3.2	0.7	1.5	0.6	9.1
2	Technology Enablement	Controls & Compliance	Business Lead	PG&E Labor	$288	$301	$316	$324	$333	$304	1.2	1.3	0.3	0.6	0.2	3.5
3	Technology Enablement	Controls & Compliance	IT Analyst	PG&E Labor	$270	$282	$296	$304	$312	$295	0.4	0.9	0.7	1.4	0.6	4.0
4	Technology Enablement	Controls & Compliance	IT Lead	PG&E Labor	$270	$282	$296	$304	$312	$295	0.4	0.9	0.7	1.4	0.6	4.0
5		**Controls & Compliance Subtotal**									**5.1**	**6.2**	**2.4**	**4.9**	**2.0**	**20.7**
6	Technology Enablement	Platform Architecture & Security	Admin Support	PG&E Labor	$261	$276	$296	$303	$311	$287	1.7	1.7	1.0	1.9	0.8	7.0
7	Technology Enablement	Platform Architecture & Security	Business Analyst	PG&E Labor	$278	$303	$316	$325	$333	$321	0.1	0.7	1.4	2.8	1.2	6.1
8	Technology Enablement	Platform Architecture & Security	Developer	PG&E Labor	$261	$276	$296	$303	$311	$287	0.7	0.7	0.4	0.8	0.3	2.9
9	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	$266	$280	$296	$304	$311	$287	6.7	7.3	3.2	6.2	2.6	25.9
10	Technology Enablement	Platform Architecture & Security	IT Architect	PG&E Labor	$262	$277	$296	$303	$311	$287	1.3	1.4	0.8	1.5	0.6	5.6
11	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	$264	$278	$296	$303	$311	$287	3.3	3.5	1.7	3.4	1.4	13.3
12		**Platform Architecture & Security Subtotal**									**13.8**	**15.3**	**8.4**	**16.6**	**6.8**	**60.9**
13			**FTE Subtotal**	**PG&E Labor**							**18.9**	**21.5**	**10.9**	**21.5**	**8.8**	**81.6**

ERP - Technology Enablement PG&E Labor					(C) Capital Hours						(D) = (A) * (C) Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
14	Technology Enablement	Controls & Compliance	Business Analyst	PG&E Labor	5,487	5,823	1,322	2,638	1,103	16,373	$1,579	$1,752	$418	$856	$367	$4,972
15	Technology Enablement	Controls & Compliance	Business Lead	PG&E Labor	2,127	2,257	512	1,023	427	6,346	$612	$679	$162	$332	$142	$1,927
16	Technology Enablement	Controls & Compliance	IT Analyst	PG&E Labor	783	1,575	1,278	2,550	1,066	7,251	$211	$445	$379	$775	$332	$2,142
17	Technology Enablement	Controls & Compliance	IT Lead	PG&E Labor	783	1,575	1,278	2,550	1,066	7,251	$211	$445	$379	$775	$332	$2,142
18		**Controls & Compliance Subtotal**			**9,179**	**11,230**	**4,390**	**8,760**	**3,661**	**37,221**	**$2,613**	**$3,321**	**$1,337**	**$2,738**	**$1,174**	**$11,183**
19	Technology Enablement	Platform Architecture & Security	Admin Support	PG&E Labor	2,694	3,048	1,777	3,476	1,388	12,383	$704	$842	$526	$1,054	$431	$3,558
20	Technology Enablement	Platform Architecture & Security	Business Analyst	PG&E Labor	141	1,222	2,517	4,979	2,119	10,978	$39	$370	$796	$1,616	$705	$3,527
21	Technology Enablement	Platform Architecture & Security	Developer	PG&E Labor	1,121	1,268	739	1,446	577	5,152	$293	$350	$219	$439	$179	$1,480
22	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	11,500	13,144	5,681	11,171	4,597	46,093	$3,062	$3,675	$1,683	$3,392	$1,431	$13,242
23	Technology Enablement	Platform Architecture & Security	IT Architect	PG&E Labor	2,214	2,511	1,374	2,691	1,080	9,871	$581	$696	$407	$816	$336	$2,836
24	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	5,564	6,334	3,111	6,103	2,477	23,589	$1,470	$1,763	$922	$1,852	$770	$6,777
25		**Platform Architecture & Security Subtotal**			**23,233**	**27,527**	**15,201**	**29,867**	**12,239**	**108,066**	**$6,149**	**$7,696**	**$4,553**	**$9,169**	**$3,853**	**$31,420**
26			**Capital Subtotal**	**PG&E Labor**	**32,413**	**38,757**	**19,591**	**38,627**	**15,900**	**145,288**	**$8,763**	**$11,017**	**$5,891**	**$11,906**	**$5,026**	**$42,603**

ERP - Technology Enablement PG&E Labor					(E) Expense Hours						(F) = (A) * (E) Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
27	Technology Enablement	Controls & Compliance	Business Analyst	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
28	Technology Enablement	Controls & Compliance	Business Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
29	Technology Enablement	Controls & Compliance	IT Analyst	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
30	Technology Enablement	Controls & Compliance	IT Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
31		**Controls & Compliance Subtotal**			-	-	-	-	-	-	-	-	-	-	-	-
32	Technology Enablement	Platform Architecture & Security	Admin Support	PG&E Labor	299	-	-	-	-	299	$78	-	-	-	-	$78
33	Technology Enablement	Platform Architecture & Security	Business Analyst	PG&E Labor	16	-	-	-	-	16	$4	-	-	-	-	$4
34	Technology Enablement	Platform Architecture & Security	Developer	PG&E Labor	125	-	-	-	-	125	$33	-	-	-	-	$33
35	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	516	-	-	-	-	516	$135	-	-	-	-	$135
36	Technology Enablement	Platform Architecture & Security	IT Architect	PG&E Labor	211	-	-	-	-	211	$55	-	-	-	-	$55
37	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	395	-	-	-	-	395	$103	-	-	-	-	$103
38		**Platform Architecture & Security Subtotal**			**1,562**	-	-	-	-	**1,562**	**$408**	-	-	-	-	**$408**
39			**Expense Subtotal**	**PG&E Labor**	**1,562**	-	-	-	-	**1,562**	**$408**	-	-	-	-	**$408**

ERP - Technology Enablement PG&E Labor					(G) = (C) + (E) Total Hours						(H) = (D) + (F) Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
40	Technology Enablement	Controls & Compliance	Business Analyst	PG&E Labor	5,487	5,823	1,322	2,638	1,103	16,373	$1,579	$1,752	$418	$856	$367	$4,972
41	Technology Enablement	Controls & Compliance	Business Lead	PG&E Labor	2,127	2,257	512	1,023	427	6,346	$612	$679	$162	$332	$142	$1,927
42	Technology Enablement	Controls & Compliance	IT Analyst	PG&E Labor	783	1,575	1,278	2,550	1,066	7,251	$211	$445	$379	$775	$332	$2,142
43	Technology Enablement	Controls & Compliance	IT Lead	PG&E Labor	783	1,575	1,278	2,550	1,066	7,251	$211	$445	$379	$775	$332	$2,142
44		**Controls & Compliance Subtotal**			**9,179**	**11,230**	**4,390**	**8,760**	**3,661**	**37,221**	**$2,613**	**$3,321**	**$1,337**	**$2,738**	**$1,174**	**$11,183**
45	Technology Enablement	Platform Architecture & Security	Admin Support	PG&E Labor	2,993	3,048	1,777	3,476	1,388	12,682	$782	$842	$526	$1,054	$431	$3,636
46	Technology Enablement	Platform Architecture & Security	Business Analyst	PG&E Labor	156	1,222	2,517	4,979	2,119	10,994	$44	$370	$796	$1,616	$705	$3,531
47	Technology Enablement	Platform Architecture & Security	Developer	PG&E Labor	1,246	1,268	739	1,446	577	5,277	$325	$350	$219	$439	$179	$1,513
48	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	12,015	13,144	5,681	11,171	4,597	46,609	$3,196	$3,675	$1,683	$3,392	$1,431	$13,377
49	Technology Enablement	Platform Architecture & Security	IT Architect	PG&E Labor	2,426	2,511	1,374	2,691	1,080	10,082	$636	$696	$407	$816	$336	$2,891
50	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	5,958	6,334	3,111	6,103	2,477	23,984	$1,574	$1,763	$922	$1,852	$770	$6,880
51		**Platform Architecture & Security Subtotal**			**24,795**	**27,527**	**15,201**	**29,867**	**12,239**	**109,628**	**$6,558**	**$7,696**	**$4,553**	**$9,169**	**$3,853**	**$31,828**
52			**Grand Total**	**PG&E Labor**	**33,974**	**38,757**	**19,591**	**38,627**	**15,900**	**146,849**	**$9,171**	**$11,017**	**$5,891**	**$11,906**	**$5,026**	**$43,011**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Technology Enablement External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Technology Enablement External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
ERP - Technology Enablement External / SI Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Technology Enablement	Controls & Compliance	Consultant (Other SI)	External Labor		$225	$231	$236	$242	$234	-	0.0	0.0	0.0	0.0	0.1
2	Technology Enablement	Controls & Compliance	IT Analyst	External Labor	$214	$221	$231	$236	$242	$228	6.1	4.5	3.7	7.4	3.1	24.9
3	Technology Enablement	Controls & Compliance	IT Lead	External Labor	$214	$221	$231	$236	$242	$228	0.5	0.4	0.3	0.6	0.3	2.1
4	Technology Enablement	Controls & Compliance	IT Manager	External Labor	$214	$221	$231	$236	$242	$228	0.2	0.2	0.1	0.2	0.1	0.8
5	Technology Enablement	Controls & Compliance	Principal	External Labor	$214	$221	$231	$236	$242	$228	0.0	0.0	0.0	0.0	0.0	0.0
6	Technology Enablement	Controls & Compliance	Solution Architect	External Labor	$214	$221	$231	$236	$242	$228	0.5	0.4	0.3	0.6	0.3	2.1
7		**Controls & Compliance Subtotal**									**7.4**	**5.5**	**4.5**	**9.0**	**3.8**	**30.0**
8	Technology Enablement	Platform Architecture & Security	Business Lead	External Labor	$175	$181	$189	$193	$198	$186	0.3	0.2	0.1	0.3	0.1	1.1
9	Technology Enablement	Platform Architecture & Security	Consultant (Other SI)	External Labor	$175	$179	$189	$193	$198	$181	0.2	0.2	0.0	0.1	0.0	0.4
10	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	$165	$169	$174	$177	$182	$173	19.1	17.3	14.4	28.4	11.7	90.9
11	Technology Enablement	Platform Architecture & Security	IT Architect	External Labor	$157	$162	$167	$170	$174	$166	2.2	2.2	2.0	4.0	1.6	12.0
12	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	$152	$158	$163	$166	$170	$162	2.2	2.3	2.3	4.5	1.8	13.1
13	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	$149	$155	$162	$164	$168	$160	0.2	0.2	0.2	0.4	0.2	1.1
14	Technology Enablement	Platform Architecture & Security	Principal	External Labor	$166	$170	$175	$178	$183	$174	1.0	0.9	0.7	1.4	0.6	4.5
15	Technology Enablement	Platform Architecture & Security	Scrum Master	External Labor	$149	$155	$162	$164	$168	$160	0.2	0.2	0.2	0.5	0.2	1.3
16	Technology Enablement	Platform Architecture & Security	Solution Architect	External Labor	$149	$155	$162	$164	$168	$160	0.3	0.3	0.3	0.6	0.2	
17		**Platform Architecture & Security Subtotal**									**25.5**	**23.8**	**20.3**	**40.1**	**16.5**	**124.4**
18			**FTE Subtotal**	**External Labor**							**32.9**	**29.2**	**24.8**	**49.0**	**20.2**	**154.4**

					(C)						(D) = (A) * (C)					
ERP - Technology Enablement External / SI Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
19	Technology Enablement	Controls & Compliance	Consultant (Other SI)	External Labor	-	16	30	60	25	132	-	$4	$7	$14	$6	$31
20	Technology Enablement	Controls & Compliance	IT Analyst	External Labor	11,070	8,184	6,669	13,353	5,597	44,873	$2,364	$1,813	$1,540	$3,147	$1,352	$10,214
21	Technology Enablement	Controls & Compliance	IT Lead	External Labor	924	683	557	1,115	467	3,746	$197	$151	$129	$263	$113	$853
22	Technology Enablement	Controls & Compliance	IT Manager	External Labor	372	275	224	448	188	1,507	$79	$61	$52	$106	$45	$343
23	Technology Enablement	Controls & Compliance	Principal	External Labor	20	15	12	24	10	81	$4	$3	$3	$6	$2	$18
24	Technology Enablement	Controls & Compliance	Solution Architect	External Labor	924	683	557	1,115	467	3,746	$197	$151	$129	$263	$113	$853
25		**Controls & Compliance Subtotal**			**13,309**	**9,856**	**8,049**	**16,115**	**6,755**	**54,084**	**$2,842**	**$2,183**	**$1,858**	**$3,797**	**$1,632**	**$12,312**
26	Technology Enablement	Platform Architecture & Security	Business Lead	External Labor	492	393	266	527	225	1,904	$86	$71	$50	$102	$45	$354
27	Technology Enablement	Platform Architecture & Security	Consultant (Other SI)	External Labor	295	319	50	100	43	807	$51	$57	$10	$19	$8	$146
28	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	33,044	31,173	25,888	51,134	21,107	162,347	$5,485	$5,282	$4,501	$9,069	$3,842	$28,180
29	Technology Enablement	Platform Architecture & Security	IT Architect	External Labor	3,640	3,903	3,645	7,186	2,918	21,291	$575	$632	$607	$1,219	$507	$3,541
30	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	3,585	4,153	4,114	8,103	3,265	23,220	$548	$655	$671	$1,346	$555	$3,775
31	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	282	341	348	686	275	1,932	$42	$53	$56	$113	$46	$310
32	Technology Enablement	Platform Architecture & Security	Principal	External Labor	1,656	1,544	1,267	2,502	1,035	8,003	$276	$263	$221	$446	$189	$1,395
33	Technology Enablement	Platform Architecture & Security	Scrum Master	External Labor	338	409	418	823	330	2,319	$50	$64	$68	$135	$55	$372
34	Technology Enablement	Platform Architecture & Security	Solution Architect	External Labor	427	517	528	1,040	418	2,931	$64	$80	$85	$171	$70	$471
35		**Platform Architecture & Security Subtotal**			**43,757**	**42,754**	**36,525**	**72,101**	**29,615**	**224,753**	**$7,178**	**$7,158**	**$6,270**	**$12,621**	**$5,318**	**$38,544**
36			**Capital Subtotal**	**External Labor**	**57,067**	**52,610**	**44,574**	**88,216**	**36,370**	**278,837**	**$10,019**	**$9,341**	**$8,128**	**$16,419**	**$6,949**	**$50,856**

Workpaper 3-3E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Technology Enablement External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Technology Enablement External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

ERP - Technology Enablement External / SI Labor					(E) Expense Hours						(F) = (A) * (E) Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
37	Technology Enablement	Controls & Compliance	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
38	Technology Enablement	Controls & Compliance	IT Analyst	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
39	Technology Enablement	Controls & Compliance	IT Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
40	Technology Enablement	Controls & Compliance	IT Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
41	Technology Enablement	Controls & Compliance	Principal	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
42	Technology Enablement	Controls & Compliance	Solution Architect	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
43		**Controls & Compliance Subtotal**			-	-	-	-	-	-	-	-	-	-	-	-
44	Technology Enablement	Platform Architecture & Security	Business Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
45	Technology Enablement	Platform Architecture & Security	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
46	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	1,279	-	-	-	-	1,279	$191	-	-	-	-	$191
47	Technology Enablement	Platform Architecture & Security	IT Architect	External Labor	267	-	-	-	-	267	$40	-	-	-	-	$40
48	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	347	-	-	-	-	347	$52	-	-	-	-	$52
49	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	31	-	-	-	-	31	$5	-	-	-	-	$5
50	Technology Enablement	Platform Architecture & Security	Principal	External Labor	59	-	-	-	-	59	$9	-	-	-	-	$9
51	Technology Enablement	Platform Architecture & Security	Scrum Master	External Labor	38	-	-	-	-	38	$6	-	-	-	-	$6
52	Technology Enablement	Platform Architecture & Security	Solution Architect	External Labor	47	-	-	-	-	47	$7	-	-	-	-	$7
53		**Platform Architecture & Security Subtotal**			**2,069**	-	-	-	-	**2,069**	**$309**	-	-	-	-	**$309**
54			**Expense Subtotal**	**External Labor**	**2,069**	-	-	-	-	**2,069**	**$309**	-	-	-	-	**$309**

ERP - Technology Enablement External / SI Labor					(G) = (C) + (E) Total Hours						(H) = (D) + (F) Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
55	Technology Enablement	Controls & Compliance	Consultant (Other SI)	External Labor	-	16	30	60	25	132	-	$4	$7	$14	$6	$31
56	Technology Enablement	Controls & Compliance	IT Analyst	External Labor	11,070	8,184	6,669	13,353	5,597	44,873	$2,364	$1,813	$1,540	$3,147	$1,352	$10,214
57	Technology Enablement	Controls & Compliance	IT Lead	External Labor	924	683	557	1,115	467	3,746	$197	$151	$129	$263	$113	$853
58	Technology Enablement	Controls & Compliance	IT Manager	External Labor	372	275	224	448	188	1,507	$79	$61	$52	$106	$45	$343
59	Technology Enablement	Controls & Compliance	Principal	External Labor	20	15	12	24	10	81	$4	$3	$3	$6	$2	$18
60	Technology Enablement	Controls & Compliance	Solution Architect	External Labor	924	683	557	1,115	467	3,746	$197	$151	$129	$263	$113	$853
61		**Controls & Compliance Subtotal**			**13,309**	**9,856**	**8,049**	**16,115**	**6,755**	**54,084**	**$2,842**	**$2,183**	**$1,858**	**$3,797**	**$1,632**	**$12,312**
62	Technology Enablement	Platform Architecture & Security	Business Lead	External Labor	492	393	266	527	225	1,904	$86	$71	$50	$102	$45	$354
63	Technology Enablement	Platform Architecture & Security	Consultant (Other SI)	External Labor	295	319	50	100	43	807	$51	$57	$10	$19	$8	$146
64	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	34,323	31,173	25,888	51,134	21,107	163,626	$5,676	$5,282	$4,501	$9,069	$3,842	$28,371
65	Technology Enablement	Platform Architecture & Security	IT Architect	External Labor	3,907	3,903	3,645	7,186	2,918	21,558	$615	$632	$607	$1,219	$507	$3,581
66	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	3,932	4,153	4,114	8,103	3,265	23,567	$599	$655	$671	$1,346	$555	$3,827
67	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	313	341	348	686	275	1,963	$47	$53	$56	$113	$46	$315
68	Technology Enablement	Platform Architecture & Security	Principal	External Labor	1,715	1,544	1,267	2,502	1,035	8,063	$285	$263	$221	$446	$189	$1,404
69	Technology Enablement	Platform Architecture & Security	Scrum Master	External Labor	375	409	418	823	330	2,356	$56	$64	$68	$135	$55	$378
70	Technology Enablement	Platform Architecture & Security	Solution Architect	External Labor	**474**	**517**	**528**	**1,040**	**418**	**2,978**	$71	$80	$85	$171	$70	$478
71		**Platform Architecture & Security Subtotal**			45,826	42,754	36,525	72,101	29,615	226,821	**$7,487**	**$7,158**	**$6,270**	**$12,621**	**$5,318**	**$38,854**
72			**External Total**	**External Labor**	**59,135**	**52,610**	**44,574**	**88,216**	**36,370**	**280,905**	**$10,329**	**$9,341**	**$8,128**	**$16,419**	**$6,949**	**$51,166**

ADDITIONAL WORKPAPER NOTES: A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3F
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Technology Enablement PG&E Labor Workpaper
Thousands of Dollars - Nominal

GIS — Technology Enablement PG&E Labor Workpaper

PROGRAM	GIS
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Technology Enablement PG&E Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Technology Enablement	Platform Architecture & Security	Business Lead	PG&E Labor	$262	$273	$285	$296	-	$276	1.0	1.2	1.2	0.3	-	3.6
2	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	$259	$271	$283	$294	-	$274	1.7	2.3	2.3	0.6	-	6.9
3	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	$230	$244	$266	$276	-	$249	16.4	20.2	19.1	4.4	-	60.1
4			**FTE Subtotal**	**PG&E Labor**							**19.1**	**23.7**	**22.6**	**5.2**	**-**	**70.6**

					(C)						(D) = (A) * (C)					
GIS - Technology Enablement PG&E Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
5	Technology Enablement	Platform Architecture & Security	Business Lead	PG&E Labor	1,740	2,088	2,088	522	-	6,438	$455	$571	$596	$155	-	$1,776
6	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	3,045	4,176	4,176	1,044	-	12,441	$790	$1,131	$1,181	$306	-	$3,409
7	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	28,812	36,367	34,348	7,868	-	107,395	$6,682	$8,857	$9,132	$2,174	-	$26,844
8			**Capital Subtotal**	**PG&E Labor**	**33,597**	**42,631**	**40,612**	**9,434**	**-**	**126,274**	**$7,927**	**$10,559**	**$10,909**	**$2,635**	**-**	**$32,030**

					(E)						(F) = (A) * (E)					
GIS - Technology Enablement PG&E Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
9	Technology Enablement	Platform Architecture & Security	Business Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
10	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
11	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	793	-	-	-	-	793	$115	-	-	-	-	$115
12			**Expense Subtotal**	**PG&E Labor**	**793**	**-**	**-**	**-**	**-**	**793**	**$115**	**-**	**-**	**-**	**-**	**$115**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Technology Enablement PG&E Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
13	Technology Enablement	Platform Architecture & Security	Business Lead	PG&E Labor	1,740	2,088	2,088	522	-	6,438	$455	$571	$596	$155	-	$1,776
14	Technology Enablement	Platform Architecture & Security	IT Lead	PG&E Labor	3,045	4,176	4,176	1,044	-	12,441	$790	$1,131	$1,181	$306	-	$3,409
15	Technology Enablement	Platform Architecture & Security	IT Analyst	PG&E Labor	29,605	36,367	34,348	7,868	-	108,188	$6,797	$8,857	$9,132	$2,174	-	$26,959
16			**Grand Total**	**PG&E Labor**	**34,390**	**42,631**	**40,612**	**9,434**	**-**	**127,067**	**$8,042**	**$10,559**	**$10,909**	**$2,635**	**-**	**$32,144**

ADDITIONAL WORKPAPER NOTES: A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-3G
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Technology Enablement External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

GIS — Technology Enablement External / Systems Integrator (SI) Labor Workpaper

PROGRAM	GIS
COST GROUP	Technology Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Technology Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Technology Enablement External / SI Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	$189	$113	$116	$119	-	$133	4.7	6.5	6.6	1.7	-	19.6
2	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	$208	$138	$143	$147	-	$156	12.6	19.6	20.4	5.3	-	58.0
3	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	$338	$232	$238	$243	-	$257	1.3	2.2	2.2	0.6	-	6.3
4			FTE Subtotal	External Labor							18.6	28.4	29.2	7.7	-	83.8

					(C)						(D) = (A) * (C)					
GIS - Technology Enablement External / SI Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
5	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	8,100	11,784	11,896	3,120	-	34,900	$1,520	$1,335	$1,376	$370	-	$4,601
6	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	21,316	35,362	36,663	9,620	-	102,961	$4,318	$4,885	$5,249	$1,416	-	$15,867
7	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	2,124	3,926	3,974	1,040	-	11,064	$718	$911	$944	$253	-	$2,826
8			Capital Subtotal	External Labor	31,541	51,072	52,533	13,780	-	148,926	$6,556	$7,130	$7,569	$2,038	-	$23,294

					(E)						(F) = (A) * (E)					
GIS - Technology Enablement External / SI Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
9	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	294	-	-	-	-	294	$69	-	-	-	-	$69
10	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	1,433	-	-	-	-	1,433	$408	-	-	-	-	$408
11	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	236	-	-	-	-	236	$80	-	-	-	-	$80
12			Expense Subtotal	External Labor	1,963	-	-	-	-	1,963	$557	-	-	-	-	$557

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Technology Enablement External / SI Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
13	Technology Enablement	Platform Architecture & Security	IT Lead	External Labor	8,394	11,784	11,896	3,120	-	35,194	$1,589	$1,335	$1,376	$370	-	$4,670
14	Technology Enablement	Platform Architecture & Security	IT Analyst	External Labor	22,749	35,362	36,663	9,620	-	104,394	$4,727	$4,885	$5,249	$1,416	-	$16,276
15	Technology Enablement	Platform Architecture & Security	IT Manager	External Labor	2,360	3,926	3,974	1,040	-	11,300	$798	$911	$944	$253	-	$2,906
16			Grand Total	External Labor	33,504	51,072	52,533	13,780	-	150,889	$7,113	$7,130	$7,569	$2,038	-	$23,851

ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-4
Pacific Gas and Electric Company
ERP and GIS Transformation
App Remediation Cost Group Workpaper

WP #	Workpaper Name
	Summary WPs
3-4	Testimony Tables
3-4A	App Remediation Workpaper Summary (ERP and GIS, All Labor Types)
3-4B	App Remediation PG&E Labor Workpaper
3-4C	App Remediation External / Systems Integrator Labor Workpaper

Workpaper 3-4
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

App Remediation - Testimony Tables

TABLE 3-23
APPLICATION REMEDIATION COST GROUP CAPITAL – CAPITAL EXPENDITURES BY PLATFORM
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Platform	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	$ 0.5	$ 2.0	$ 12.1	$ 25.5	$ 43.8	$ 33.1	$ 49.2	$ 14.2	$ 180.4
2	GIS	-	0.5	3.4	14.3	11.7	21.4	19.8	-	71.1
3	**Total**	**$ 0.5**	**$ 2.4**	**$ 15.6**	**$ 39.8**	**$ 55.5**	**$ 54.6**	**$ 69.0**	**$ 14.2**	**$ 251.6**

TABLE 3-24
APPLICATION REMEDIATION COST GROUP – CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Labor Category	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	PG&E	$ 0.1	$ 0.5	$ 3.4	$ 9.2	$ 12.0	$ 13.2	$ 15.5	$ 2.7	$ 56.5
2	External	0.4	1.9	12.2	30.7	43.5	41.4	53.5	11.5	195.1
3	**Total**	**$ 0.5**	**$ 2.4**	**$ 15.6**	**$ 39.8**	**$ 55.5**	**$ 54.6**	**$ 69.0**	**$ 14.2**	**$ 251.6**

Workpaper 3-4A
Pacific Gas and Electric Company
ERP and GIS Transformation
App Remediation Workpaper Summary (ERP and GIS, All Labor Types)
Thousands of Dollars - Nominal

App Remediation Cost Group Workpaper Summary — Combined

PROGRAM	ERP &GIS
COST GROUP	Application Remediation
WORKPAPER DESCRIPTION	Summary workpaper presenting annual capital, O&M, and total cost forecast by program and workstream for combined PG&E and external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Application Remediation forecast using the Bottom-Up, Unit-Based, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast					Base Capital Cost Forecast									Base Expense Cost Forecast									Base Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	Disposition/Other	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$4,210	$7,892	$5,613	$8,919	$2,556	$29,190	-	-	-	-	-	-	-	-	-	-	-	-	$4,210	$7,892	$5,613	$8,919	$2,556	$29,190
2	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$5,894	$11,049	$7,859	$12,486	$3,578	$40,866	-	-	-	-	-	-	-	-	-	-	-	-	$5,894	$11,049	$7,859	$12,486	$3,578	$40,866
3	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$7,922	$16,049	$12,502	$17,059	$5,043	$58,574	-	-	-	-	-	-	-	-	-	-	-	-	$7,922	$16,049	$12,502	$17,059	$5,043	$58,574
4			**ERP Subtotal**		**$480**	**$1,983**	**$12,118**	**$18,026**	**$34,989**	**$25,974**	**$38,464**	**$11,177**	**$128,630**	-	-	-	-	-	-	-	-	-	-	-	-	**$18,026**	**$34,989**	**$25,974**	**$38,464**	**$11,177**	**$128,630**
5	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$3,942	$3,787	$6,495	$6,025	-	$20,249	-	-	-	-	-	-	-	-	-	-	-	-	$3,942	$3,787	$6,495	$6,025	-	$20,249
6	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$326	$385	$582	$515	-	$1,809	-	-	-	-	-	-	-	-	-	-	-	-	$326	$385	$582	$515	-	$1,809
7	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$5,894	$4,772	$9,908	$9,343	-	$29,917	-	-	-	-	-	-	-	-	-	-	-	-	$5,894	$4,772	$9,908	$9,343	-	$29,917
8			**GIS Subtotal**		-	**$465**	**$3,444**	**$10,162**	**$8,944**	**$16,985**	**$15,883**	-	**$51,975**	-	-	-	-	-	-	-	-	-	-	-	-	**$10,162**	**$8,944**	**$16,985**	**$15,883**	-	**$51,975**
9			**Base Forecast Total**		**$480**	**$2,448**	**$15,562**	**$28,188**	**$43,933**	**$42,959**	**$54,347**	**$11,177**	**$180,605**	-	-	-	-	-	-	-	-	-	-	-	-	**$28,188**	**$43,933**	**$42,959**	**$54,347**	**$11,177**	**$180,605**

Table 2: Contingencies					Adjustments - Capital Contingencies									Adjustments - Expense Contingencies									Adjustments - Total Contingencies								
Line No.	Program	Cost Group	Workstream	Disposition/Other	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
10	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$842	$1,578	$1,123	$1,784	$511	$5,838	-	-	-	-	-	-	-	-	-	-	-	-	$842	$1,578	$1,123	$1,784	$511	$5,838
11	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$1,179	$2,210	$1,572	$2,497	$716	$8,173	-	-	-	-	-	-	-	-	-	-	-	-	$1,179	$2,210	$1,572	$2,497	$716	$8,173
12	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$1,584	$3,210	$2,500	$3,412	$1,009	$11,715	-	-	-	-	-	-	-	-	-	-	-	-	$1,584	$3,210	$2,500	$3,412	$1,009	$11,715
13			**ERP Subtotal**		-	-	-	**$3,605**	**$6,998**	**$5,195**	**$7,693**	**$2,235**	**$25,726**	-	-	-	-	-	-	-	-	-	-	-	-	**$3,605**	**$6,998**	**$5,195**	**$7,693**	**$2,235**	**$25,726**
14	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$788	$757	$1,299	$1,205	-	$4,050	-	-	-	-	-	-	-	-	-	-	-	-	$788	$757	$1,299	$1,205	-	$4,050
15	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$65	$77	$116	$103	-	$362	-	-	-	-	-	-	-	-	-	-	-	-	$65	$77	$116	$103	-	$362
16	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$1,179	$954	$1,982	$1,869	-	$5,983	-	-	-	-	-	-	-	-	-	-	-	-	$1,179	$954	$1,982	$1,869	-	$5,983
17			**GIS Subtotal**		-	-	-	**$2,032**	**$1,789**	**$3,397**	**$3,177**	-	**$10,395**	-	-	-	-	-	-	-	-	-	-	-	-	**$2,032**	**$1,789**	**$3,397**	**$3,177**	-	**$10,395**
18			**Contingencies Total**		-	-	-	**$5,638**	**$8,787**	**$8,592**	**$10,869**	**$2,235**	**$36,121**	-	-	-	-	-	-	-	-	-	-	-	-	**$5,638**	**$8,787**	**$8,592**	**$10,869**	**$2,235**	**$36,121**

Table 3: Meals and Travel					Adjustments - Meals and Travel Capital									Adjustments - Meals and Travel Expenses									Adjustments - Total Meals and Travel Expenses								
Line No.	Program	Cost Group	Workstream	Disposition/Other	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
19	ERP	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	ERP	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22			**ERP Subtotal**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	GIS	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	GIS	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26			**GIS Subtotal**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27			**Meals and Travel Total**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4: Allowance for Funds Using During Construction (AFUDC)					Capital AFUDC									Expense AFUDC									Total AFUDC								
Line No.	Program	Cost Group	Workstream	Disposition/Other	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
28	ERP	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	ERP	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31			**ERP Subtotal**		-	-	-	**$525**	**$1,831**	**$1,954**	**$3,073**	**$764**	**$8,147**	-	-	-	-	-	-	-	-	-	-	-	-	**$525**	**$1,831**	**$1,954**	**$3,073**	**$764**	**$8,147**
32	GIS	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	GIS	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35			**GIS Subtotal**		-	-	-	**$789**	**$966**	**$1,059**	**$735**	-	**$3,549**	-	-	-	-	-	-	-	-	-	-	-	-	**$789**	**$966**	**$1,059**	**$735**	-	**$3,549**
36			**AFUDC Total**		-	-	-	**$1,313**	**$2,797**	**$3,013**	**$3,808**	**$764**	**$11,696**	-	-	-	-	-	-	-	-	-	-	-	-	**$1,313**	**$2,797**	**$3,013**	**$3,808**	**$764**	**$11,696**

Table 5: Other Adjustment (See Note 1 below)					Other Capital Adjustments [1]									Other Expense Adjustments [1]									Other Total Adjustments [1]								
Line No.	Program	Cost Group	Workstream	Disposition/Other	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
37	ERP	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	ERP	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40			**ERP Subtotal**		-	-	-	**$3,358**	-	-	-	-	**$3,358**	-	-	-	-	-	-	-	-	-	-	-	-	**$3,358**	-	-	-	-	**$3,358**
41	GIS	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	GIS	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44			**GIS Subtotal**		-	-	-	**$1,315**	-	-	-	-	**$1,315**	-	-	-	-	-	-	-	-	-	**$0**	-	-	-	**$1,315**	-	-	-	-	**$1,315**
45			**Other Adjustments Total**		-	-	-	**$4,673**	-	-	-	-	**$4,673**	-	-	-	-	-	-	-	-	-	**$0**	-	-	-	**$4,673**	-	-	-	-	**$4,673**

Table 6: Total Forecast					Total Capital Forecast									Total Expense Forecast									Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	Disposition/Other	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
46	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$5,052	$9,470	$6,736	$10,702	$3,067	$35,028	-	-	-	-	-	-	-	-	-	-	-	-	$5,052	$9,470	$6,736	$10,702	$3,067	$35,028
47	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$7,073	$13,258	$9,431	$14,983	$4,294	$49,039	-	-	-	-	-	-	-	-	-	-	-	-	$7,073	$13,258	$9,431	$14,983	$4,294	$49,039
48	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$9,506	$19,258	$15,002	$20,471	$6,051	$70,289	-	-	-	-	-	-	-	-	-	-	-	-	$9,506	$19,258	$15,002	$20,471	$6,051	$70,289
49	ERP	Application Remediation	Application Remediation	AFUDC	-	-	-	$525	$1,831	$1,954	$3,073	$764	$8,147	-	-	-	-	-	-	-	-	-	-	-	-	$525	$1,831	$1,954	$3,073	$764	$8,147
50	ERP	Application Remediation	Application Remediation	Other Adjustments	-	-	-	$3,358	-	-	-	-	$3,358	-	-	-	-	-	-	-	-	-	-	-	-	$3,358	-	-	-	-	$3,358
51	ERP	Application Remediation	Application Remediation	Recorded	$480	$1,983	$12,118	-	-	-	-	-	$14,580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$14,580
52			**ERP Subtotal**		**$480**	**$1,983**	**$12,118**	**$25,514**	**$43,818**	**$33,123**	**$49,230**	**$14,176**	**$180,441**	-	-	-	-	-	-	-	-	-	-	-	-	**$25,514**	**$43,818**	**$33,123**	**$49,230**	**$14,176**	**$180,441**
53	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$4,730	$4,544	$7,794	$7,230	-	$24,299	-	-	-	-	-	-	-	-	-	-	-	-	$4,730	$4,544	$7,794	$7,230	-	$24,299
54	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$392	$463	$698	$618	-	$2,170	-	-	-	-	-	-	-	-	-	-	-	-	$392	$463	$698	$618	-	$2,170
55	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$7,073	$5,726	$11,889	$11,211	-	$35,900	-	-	-	-	-	-	-	-	-	-	-	-	$7,073	$5,726	$11,889	$11,211	-	$35,900
56	GIS	Application Remediation	Application Remediation	AFUDC	-	-	-	$789	$966	$1,059	$735	-	$3,549	-	-	-	-	-	-	-	-	-	-	-	-	$789	$966	$1,059	$735	-	$3,549
57	GIS	Application Remediation	Application Remediation	Other Adjustments	-	-	-	$1,315	-	-	-	-	$1,315	-	-	-	-	-	-	-	-	-	-	-	-	$1,315	-	-	-	-	$1,315
58	GIS	Application Remediation	Application Remediation	Recorded	-	$465	$3,444	-	-	-	-	-	$3,909	-	-	-	-	-	-	-	-	-	-	$465	$3,444	-	-	-	-	-	$3,909
59			**GIS Subtotal**		-	**$465**	**$3,444**	**$14,299**	**$11,698**	**$21,441**	**$19,795**	-	**$71,143**	-	-	-	-	-	-	-	-	-	-	-	**$465**	**$3,444**	**$14,299**	**$11,698**	**$21,441**	**$19,795**	-	**$71,143**
60			**Application Remediation Grand Total**		**$480**	**$2,448**	**$15,562**	**$39,812**	**$55,517**	**$54,564**	**$69,025**	**$14,176**	**$251,585**	-	-	-	-	-	-	-	-	-	-	-	-	**$465**	**$3,444**	**$39,812**	**$55,517**	**$54,564**	**$69,025**	**$14,176**	**$251,585**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

App Remediation Cost Group Workpaper Summary — PG&E Labor

PROGRAM	ERP &GIS
COST GROUP	Application Remediation
WORKPAPER DESCRIPTION	Summary workpaper presenting annual capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Application Remediation forecast using the Bottom-Up, Unit-Based, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Disposition/Other	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$421	$789	$561	$892	$256	$2,919	-	-	-	-	-	-	-	-	-	-	-	-	$421	$789	$561	$892	$256	$2,919
2	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$589	$1,105	$786	$1,249	$358	$4,087	-	-	-	-	-	-	-	-	-	-	-	-	$589	$1,105	$786	$1,249	$358	$4,087
3	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$2,376	$4,815	$3,750	$5,118	$1,513	$17,572	-	-	-	-	-	-	-	-	-	-	-	-	$2,376	$4,815	$3,750	$5,118	$1,513	$17,572
4			**ERP Subtotal**		**$92**	**$379**	**$2,316**	**$3,387**	**$6,709**	**$5,098**	**$7,258**	**$2,126**	**$24,578**	-	-	-	-	-	-	-	-	-	**$92**	**$379**	**$2,316**	**$3,387**	**$6,709**	**$5,098**	**$7,258**	**$2,126**	**$24,578**
5	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$1,194	$1,163	$2,022	$1,894	-	$6,273	-	-	-	-	-	-	-	-	-	-	-	-	$1,194	$1,163	$2,022	$1,894	-	$6,273
6	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$99	$118	$181	$162	-	$560	-	-	-	-	-	-	-	-	-	-	-	-	$99	$118	$181	$162	-	$560
7	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$1,786	$1,466	$3,084	$2,937	-	$9,273	-	-	-	-	-	-	-	-	-	-	-	-	$1,786	$1,466	$3,084	$2,937	-	$9,273
8			**GIS Subtotal**			**$144**	**$1,067**	**$3,079**	**$2,747**	**$5,287**	**$4,993**	-	**$17,317**	-	-	-	-	-	-	-	-	-	-	**$144**	**$1,067**	**$3,079**	**$2,747**	**$5,287**	**$4,993**	-	**$17,317**
9			**Base Forecast Total**		**$92**	**$523**	**$3,383**	**$6,466**	**$9,456**	**$10,385**	**$12,252**	**$2,126**	**$41,895**	-	-	-	-	-	-	-	-	-	**$92**	**$523**	**$3,383**	**$6,466**	**$9,456**	**$10,385**	**$12,252**	**$2,126**	**$41,895**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Disposition/Other	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
10	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$84	$158	$112	$178	$51	$584	-	-	-	-	-	-	-	-	-	-	-	-	$84	$158	$112	$178	$51	$584
11	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$118	$221	$157	$250	$72	$817	-	-	-	-	-	-	-	-	-	-	-	-	$118	$221	$157	$250	$72	$817
12	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$475	$963	$750	$1,024	$303	$3,514	-	-	-	-	-	-	-	-	-	-	-	-	$475	$963	$750	$1,024	$303	$3,514
13			**ERP Subtotal**		-	-	-	**$677**	**$1,342**	**$1,020**	**$1,452**	**$425**	**$4,916**	-	-	-	-	-	-	-	-	-	-	-	-	**$677**	**$1,342**	**$1,020**	**$1,452**	**$425**	**$4,916**
14	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$239	$233	$404	$379	-	$1,255	-	-	-	-	-	-	-	-	-	-	-	-	$239	$233	$404	$379	-	$1,255
15	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$20	$24	$36	$32	-	$112	-	-	-	-	-	-	-	-	-	-	-	-	$20	$24	$36	$32	-	$112
16	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$357	$293	$617	$587	-	$1,855	-	-	-	-	-	-	-	-	-	-	-	-	$357	$293	$617	$587	-	$1,855
17			**GIS Subtotal**		-	-	-	**$616**	**$549**	**$1,057**	**$999**	-	**$3,221**	-	-	-	-	-	-	-	-	-	-	-	-	**$616**	**$549**	**$1,057**	**$999**	-	**$3,221**
18			**Contingencies Total**		-	-	-	**$1,293**	**$1,891**	**$2,077**	**$2,450**	**$425**	**$8,137**	-	-	-	-	-	-	-	-	-	-	-	-	**$1,293**	**$1,891**	**$2,077**	**$2,450**	**$425**	**$8,137**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Disposition/Other	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
19	ERP	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	ERP	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22			**ERP Subtotal**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	GIS	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	GIS	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26			**GIS Subtotal**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27			**Meals and Travel Total**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Disposition/Other	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
28	ERP	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	ERP	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31			**ERP Subtotal**		-	-	-	**$101**	**$353**	**$377**	**$592**	**$147**	**$1,571**	-	-	-	-	-	-	-	-	-	-	-	-	**$101**	**$353**	**$377**	**$592**	**$147**	**$1,571**
32	GIS	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	GIS	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35			**GIS Subtotal**		-	-	-	**$241**	**$296**	**$326**	**$228**	-	**$1,091**	-	-	-	-	-	-	-	-	-	-	-	-	**$241**	**$296**	**$326**	**$228**	-	**$1,091**
36			**AFUDC Total**		-	-	-	**$342**	**$649**	**$703**	**$820**	**$147**	**$2,661**	-	-	-	-	-	-	-	-	-	-	-	-	**$342**	**$649**	**$703**	**$820**	**$147**	**$2,661**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Disposition/Other	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
37	ERP	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	ERP	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40			**ERP Subtotal**					**$642**					**$642**	-	-	-	-	-	-	-	-	-	-	-	-	**$642**	-	-	-	-	-	**$642**
41	GIS	Application Remediation	Application Remediation	Keep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	GIS	Application Remediation	Application Remediation	Retire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44			**GIS Subtotal**		-	-	-	**$407**	-	-	-	-	**$407**	-	-	-	-	-	-	-	-	-	-	-	-	**$407**	-	-	-	-	-	**$407**
45			**Other Adjustments Total**		-	-	-	**$1,049**	-	-	-	-	**$1,049**	-	-	-	-	-	-	-	-	-	-	-	-	**$1,049**	-	-	-	-	-	**$1,049**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Disposition/Other	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
46	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$505	$947	$674	$1,070	$307	$3,503	-	-	-	-	-	-	-	-	-	-	-	-	$505	$947	$674	$1,070	$307	$3,503
47	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$707	$1,326	$943	$1,498	$429	$4,904	-	-	-	-	-	-	-	-	-	-	-	-	$707	$1,326	$943	$1,498	$429	$4,904
48	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$2,852	$5,778	$4,501	$6,141	$1,815	$21,087	-	-	-	-	-	-	-	-	-	-	-	-	$2,852	$5,778	$4,501	$6,141	$1,815	$21,087
49	ERP	Application Remediation	Application Remediation	AFUDC	-	-	-	$101	$353	$377	$592	$147	$1,571	-	-	-	-	-	-	-	-	-	-	-	-	$101	$353	$377	$592	$147	$1,571
50	ERP	Application Remediation	Application Remediation	Other Adjustments	-	-	-	$642	-	-	-	-	$642	-	-	-	-	-	-	-	-	-	-	-	-	$642	-	-	-	-	$642
51	ERP	Application Remediation	Application Remediation	Recorded	$92	$379	$2,316						$2,787											$92	$379	$2,316	-	-	-	-	-	$2,787
52			**ERP Subtotal**		**$92**	**$379**	**$2,316**	**$4,807**	**$8,403**	**$6,494**	**$9,302**	**$2,699**	**$34,493**	-	-	-	-	-	-	-	-	-	-	**$92**	**$379**	**$2,316**	**$4,807**	**$8,403**	**$6,494**	**$9,302**	**$2,699**	**$34,493**
53	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$1,433	$1,396	$2,426	$2,273	-	$7,528	-	-	-	-	-	-	-	-	-	-	-	-	$1,433	$1,396	$2,426	$2,273	-	$7,528
54	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$119	$142	$217	$194	-	$672	-	-	-	-	-	-	-	-	-	-	-	-	$119	$142	$217	$194	-	$672
55	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$2,143	$1,759	$3,701	$3,525	-	$11,127	-	-	-	-	-	-	-	-	-	-	-	-	$2,143	$1,759	$3,701	$3,525	-	$11,127
56	GIS	Application Remediation	Application Remediation	AFUDC	-	-	-	$241	$296	$326	$228	-	$1,091	-	-	-	-	-	-	-	-	-	-	-	-	$241	$296	$326	$228	-	$1,091
57	GIS	Application Remediation	Application Remediation	Other Adjustments	-	-	-	$407	-	-	-	-	$407	-	-	-	-	-	-	-	-	-	-	-	-	$407	-	-	-	-	$407
58	GIS	Application Remediation	Application Remediation	Recorded	-	$144	$1,067						$1,211											-	$144	$1,067	-	-	-	-	-	$1,211
59			**GIS Subtotal**		-	**$144**	**$1,067**	**$4,343**	**$3,592**	**$6,671**	**$6,220**	-	**$22,037**	-	-	-	-	-	-	-	-	-	-	-	**$144**	**$1,067**	**$4,343**	**$3,592**	**$6,671**	**$6,220**	-	**$22,037**
60			**Application Remediation Grand Total**		**$92**	**$523**	**$3,383**	**$9,150**	**$11,995**	**$13,165**	**$15,522**	**$2,699**	**$56,530**	-	-	-	-	-	-	-	-	-	-	**$92**	**$523**	**$3,383**	**$9,150**	**$11,995**	**$13,165**	**$15,522**	**$2,699**	**$56,530**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

App Remediation Cost Group Workpaper Summary — External / Systems Integrator Labor

PROGRAM	ERP &GIS
COST GROUP	Application Remediation
WORKPAPER DESCRIPTION	Summary workpaper presenting annual capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Application Remediation forecast using the Bottom-Up, Unit-Based, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Disposition/Other	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Application Remediation	Application Remediation	Keep				$3,789	$7,103	$5,052	$8,027	$2,300	$26,271									-	-	-	-	$3,789	$7,103	$5,052	$8,027	$2,300	$26,271
2	ERP	Application Remediation	Application Remediation	Retire				$5,305	$9,944	$7,073	$11,238	$3,220	$36,779									-	-	-	-	$5,305	$9,944	$7,073	$11,238	$3,220	$36,779
3	ERP	Application Remediation	Application Remediation	Rearchitect				$5,545	$11,234	$8,751	$11,942	$3,530	$41,002									-	-	-	-	$5,545	$11,234	$8,751	$11,942	$3,530	$41,002
4			**ERP Subtotal**		$388	$1,604	$9,801	$14,639	$28,281	$20,876	$31,206	$9,051	$104,052	-	-	-	-	-	-	-	-	-	$388	$1,604	$9,801	$14,639	$28,281	$20,876	$31,206	$9,051	$104,052
5	GIS	Application Remediation	Application Remediation	Keep				$2,748	$2,624	$4,473	$4,131		$13,976									-	-	-	-	$2,748	$2,624	$4,473	$4,131	-	$13,976
6	GIS	Application Remediation	Application Remediation	Retire				$228	$267	$401	$353		$1,248									-	-	-	-	$228	$267	$401	$353	-	$1,248
7	GIS	Application Remediation	Application Remediation	Rearchitect				$4,108	$3,306	$6,824	$6,406		$20,644									-	-	-	-	$4,108	$3,306	$6,824	$6,406	-	$20,644
8			**GIS Subtotal**		-	$321	$2,378	$7,083	$6,197	$11,698	$10,890	-	$35,868	-	-	-	-	-	-	-	-	-	-	$321	$2,378	$7,083	$6,197	$11,698	$10,890	-	$35,868
9			**Base Forecast Total**		$388	$1,925	$12,179	$21,722	$34,478	$32,574	$42,096	$9,051	$139,920	-	-	-	-	-	-	-	-	-	$388	$1,925	$12,179	$21,722	$34,478	$32,574	$42,096	$9,051	$139,920

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Disposition/Other	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
10	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$758	$1,421	$1,010	$1,605	$460	$5,254										-	-	-	$758	$1,421	$1,010	$1,605	$460	$5,254
11	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$1,061	$1,989	$1,415	$2,248	$644	$7,356										-	-	-	$1,061	$1,989	$1,415	$2,248	$644	$7,356
12	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$1,109	$2,247	$1,750	$2,388	$706	$8,200										-	-	-	$1,109	$2,247	$1,750	$2,388	$706	$8,200
13			**ERP Subtotal**		-	-	-	$2,928	$5,656	$4,175	$6,241	$1,810	$20,810	-	-	-	-	-	-	-	-	-	-	-	-	$2,928	$5,656	$4,175	$6,241	$1,810	$20,810
14	GIS	Application Remediation	Application Remediation	Keep	-			$550	$525	$895	$826	-	$2,795									-	-	-	-	$550	$525	$895	$826	-	$2,795
15	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$46	$53	$80	$71	-	$250										-	-	-	$46	$53	$80	$71	-	$250
16	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$822	$661	$1,365	$1,281	-	$4,129										-	-	-	$822	$661	$1,365	$1,281	-	$4,129
17			**GIS Subtotal**		-	-	-	$1,417	$1,239	$2,340	$2,178	-	$7,174	-	-	-	-	-	-	-	-	-	-	-	-	$1,417	$1,239	$2,340	$2,178	-	$7,174
18			**Contingencies Total**		-	-	-	$4,344	$6,896	$6,515	$8,419	$1,810	$27,984	-	-	-	-	-	-	-	-	-	-	-	-	$4,344	$6,896	$6,515	$8,419	$1,810	$27,984

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Disposition/Other	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
19	ERP	Application Remediation	Application Remediation	Keep									-										-	-	-	-	-	-	-	-	-
20	ERP	Application Remediation	Application Remediation	Retire									-										-	-	-	-	-	-	-	-	-
21	ERP	Application Remediation	Application Remediation	Rearchitect									-										-	-	-	-	-	-	-	-	-
22			**ERP Subtotal**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	GIS	Application Remediation	Application Remediation	Keep									-										-	-	-	-	-	-	-	-	-
24	GIS	Application Remediation	Application Remediation	Retire									-										-	-	-	-	-	-	-	-	-
25	GIS	Application Remediation	Application Remediation	Rearchitect									-										-	-	-	-	-	-	-	-	-
26			**GIS Subtotal**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27			**Meals and Travel Total**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Disposition/Other	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
28	ERP	Application Remediation	Application Remediation	Keep									-										-	-	-	-	-	-	-	-	-
29	ERP	Application Remediation	Application Remediation	Retire									-										-	-	-	-	-	-	-	-	-
30	ERP	Application Remediation	Application Remediation	Rearchitect									-										-	-	-	-	-	-	-	-	-
31			**ERP Subtotal**		-	-	-	$423	$1,478	$1,578	$2,481	$617	$6,577	-	-	-	-	-	-	-	-	-	-	-	-	$423	$1,478	$1,578	$2,481	$617	$6,577
32	GIS	Application Remediation	Application Remediation	Keep									-										-	-	-	-	-	-	-	-	-
33	GIS	Application Remediation	Application Remediation	Retire									-										-	-	-	-	-	-	-	-	-
34	GIS	Application Remediation	Application Remediation	Rearchitect									-										-	-	-	-	-	-	-	-	-
35			**GIS Subtotal**		-	-	-	$548	$670	$733	$508	-	$2,458	-	-	-	-	-	-	-	-	-	-	-	-	$548	$670	$733	$508	-	$2,458
36			**AFUDC Total**		-	-	-	$971	$2,148	$2,310	$2,988	$617	$9,035	-	-	-	-	-	-	-	-	-	-	-	-	$971	$2,148	$2,310	$2,988	$617	$9,035

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Disposition/Other	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
37	ERP	Application Remediation	Application Remediation	Keep									-										-	-	-	-	-	-	-	-	-
38	ERP	Application Remediation	Application Remediation	Retire									-										-	-	-	-	-	-	-	-	-
39	ERP	Application Remediation	Application Remediation	Rearchitect									-										-	-	-	-	-	-	-	-	-
40			**ERP Subtotal**		-	-	-	$2,716	-	-	-	-	$2,716	-	-	-	-	-	-	-	-	-	-	-	-	$2,716	-	-	-	-	$2,716
41	GIS	Application Remediation	Application Remediation	Keep									-										-	-	-	-	-	-	-	-	-
42	GIS	Application Remediation	Application Remediation	Retire									-										-	-	-	-	-	-	-	-	-
43	GIS	Application Remediation	Application Remediation	Rearchitect									-										-	-	-	-	-	-	-	-	-
44			**GIS Subtotal**		-	-	-	$908	-	-	-	-	$908	-	-	-	-	-	-	-	-	-	$0	-	-	-	$908	-	-	-	-	$908
45			**Other Adjustments Total**		-	-	-	$3,624	-	-	-	-	$3,624	-	-	-	-	-	-	-	-	-	$0	-	-	-	$3,624	-	-	-	-	$3,624

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Disposition/Other	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
46	ERP	Application Remediation	Application Remediation	Keep	-	-	-	$4,547	$8,523	$6,063	$9,632	$2,760	$31,525	-	-	-	-	-	-	-	-	-	-	-	-	$4,547	$8,523	$6,063	$9,632	$2,760	$31,525
47	ERP	Application Remediation	Application Remediation	Retire	-	-	-	$6,366	$11,933	$8,488	$13,485	$3,864	$44,135	-	-	-	-	-	-	-	-	-	-	-	-	$6,366	$11,933	$8,488	$13,485	$3,864	$44,135
48	ERP	Application Remediation	Application Remediation	Rearchitect	-	-	-	$6,654	$13,481	$10,501	$14,330	$4,236	$49,202	-	-	-	-	-	-	-	-	-	-	-	-	$6,654	$13,481	$10,501	$14,330	$4,236	$49,202
49	ERP	Application Remediation	Application Remediation	AFUDC	-	-	-	$423	$1,478	$1,578	$2,481	$617	$6,577	-	-	-	-	-	-	-	-	-	-	-	-	$423	$1,478	$1,578	$2,481	$617	$6,577
50	ERP	Application Remediation	Application Remediation	Other Adjustments	-	-	-	$2,716	-	-	-	-	$2,716	-	-	-	-	-	-	-	-	-	-	-	-	$2,716	-	-	-	-	$2,716
51	ERP	Application Remediation	Application Remediation	Recorded	$388	$1,604	$9,801						$11,793											$388	$1,604	$9,801						$11,793
52			**ERP Subtotal**		$388	$1,604	$9,801	$20,706	$35,415	$26,629	$39,928	$11,478	$145,948	-	-	-	-	-	-	-	-	-	-	$388	$1,604	$9,801	$20,706	$35,415	$26,629	$39,928	$11,478	$145,948
53	GIS	Application Remediation	Application Remediation	Keep	-	-	-	$3,297	$3,149	$5,368	$4,957	-	$16,771	-	-	-	-	-	-	-	-	-	-	-	-	$3,297	$3,149	$5,368	$4,957	-	$16,771
54	GIS	Application Remediation	Application Remediation	Retire	-	-	-	$273	$320	$481	$424	-	$1,498	-	-	-	-	-	-	-	-	-	-	-	-	$273	$320	$481	$424	-	$1,498
55	GIS	Application Remediation	Application Remediation	Rearchitect	-	-	-	$4,930	$3,967	$8,188	$7,687	-	$24,773	-	-	-	-	-	-	-	-	-	-	-	-	$4,930	$3,967	$8,188	$7,687	-	$24,773
56	GIS	Application Remediation	Application Remediation	AFUDC	-	-	-	$548	$670	$733	$508	-	$2,458	-	-	-	-	-	-	-	-	-	-	-	-	$548	$670	$733	$508	-	$2,458
57	GIS	Application Remediation	Application Remediation	Other Adjustments	-	-	-	$908	-	-	-	-	$908	-	-	-	-	-	-	-	-	-	$0	-	-	-	$908	-	-	-	-	$908
58	GIS	Application Remediation	Application Remediation	Recorded	-	$321	$2,378						$2,698											-	$321	$2,378						$2,698
59			**GIS Subtotal**		-	$321	$2,378	$9,956	$8,107	$14,770	$13,575	-	$49,106	-	-	-	-	-	-	-	-	-	$0	-	$321	$2,378	$9,956	$8,107	$14,770	$13,575	-	$49,106
60			**Application Remediation Grand Total**		$388	$1,925	$12,179	$30,662	$43,521	$41,399	$53,503	$11,478	$195,055	-	-	-	-	-	-	-	-	-	$0	$388	$1,925	$12,179	$30,662	$43,521	$41,399	$53,503	$11,478	$195,055

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5
Pacific Gas and Electric Company
ERP and GIS Transformation
Program Management Office Workpapers

WP#	Workpaper Name
	Summary WPs
3-5	Testimony Tables
3-5A	Program Management Office Workpaper Summary (ERP and GIS, All Labor Types)
3-5B	Program Management Office PG&E Labor Summary Workpaper
3-5C	Program Management Office External / Systems Integrator Labor Summary Workpaper
	Detail WPs - ERP
3-5D	ERP - Program Management Office PG&E Labor Workpaper
3-5E	ERP - Program Management Office External / Systems Integrator Labor Workpaper
	Detail WPs - GIS
3-5F	GIS - Program Management Office PG&E Labor Workpaper
3-5G	GIS - Program Management Office External / Systems Integrator Labor Workpaper

Workpaper 3-5
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Program Management Office - Testimony Tables

TABLE 3-25
PROGRAM MANAGEMENT OFFICE COST GROUP - CAPITAL EXPENDITURES BY PLATFORM
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Platform	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	$ 0.4	$ 1.7	$ 10.2	$ 12.8	$ 35.7	$ 29.8	$ 48.3	$ 13.0	$ 151.8
2	GIS	-	0.4	2.8	8.6	20.1	20.8	5.8	-	58.5
3	**Total**	**$ 0.4**	**$ 2.1**	**$ 13.0**	**$ 21.4**	**$ 55.8**	**$ 50.6**	**$ 54.1**	**$ 13.0**	**$ 210.4**

TABLE 3-26
PROGRAM MANAGEMENT OFFICE COST GROUP - CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

		Recorded			Forecast					
Line No.	Labor Category	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	PG&E	$ 0.2	$ 0.9	$ 5.5	$ 7.8	$ 24.9	$ 21.9	$ 22.5	$ 5.3	$ 88.9
2	External	0.2	1.2	7.6	13.6	30.9	28.7	31.6	7.7	121.5
3	**Total**	**$ 0.4**	**$ 2.1**	**$ 13.0**	**$ 21.4**	**$ 55.8**	**$ 50.6**	**$ 54.1**	**$ 13.0**	**$ 210.4**

Workpaper 3-5A
Pacific Gas and Electric Company
ERP and GIS Transformation
Program Management Office Workpaper Summary (ERP and GIS, All Labor Types)
Thousands of Dollars - Nominal

Program Management Office Cost Group Workpaper Summary — Combined

PROGRAM	ERP &GIS
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Summary workpaper presenting annual capital, O&M, and total cost forecast by program and workstream for combined PG&E and external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Program Management Office	Program Management Office	46.4	59.4	43.9	70.3	19.0	238.9	$404	$1,668	$10,196	$7,522	$27,290	$22,191	$36,425	$10,179	$115,875	-	-	-	$12,701	-	-	-	-	$12,701	$404	$1,668	$10,196	$20,223	$27,290	$22,191	$36,425	$10,179	$128,576
2			**ERP Subtotal**	**46.4**	**59.4**	**43.9**	**70.3**	**19.0**	**238.9**	**$404**	**$1,668**	**$10,196**	**$7,522**	**$27,290**	**$22,191**	**$36,425**	**$10,179**	**$115,875**	-	-	-	**$12,701**	-	-	-	-	**$12,701**	**$404**	**$1,668**	**$10,196**	**$20,223**	**$27,290**	**$22,191**	**$36,425**	**$10,179**	**$128,576**
3	GIS	Program Management Office	Program Management Office	25.6	33.5	33.5	8.6	-	101.1	-	$383	$2,834	$5,587	$15,206	$15,747	$4,162	-	$43,918	-	-	-	$6,003	-	-	-	-	$6,003	-	$383	$2,834	$11,589	$15,206	$15,747	$4,162	-	$49,920
4			**GIS Subtotal**	**25.6**	**33.5**	**33.5**	**8.6**	-	**101.1**	-	**$383**	**$2,834**	**$5,587**	**$15,206**	**$15,747**	**$4,162**	-	**$43,918**	-	-	-	**$6,003**	-	-	-	-	**$6,003**	-	**$383**	**$2,834**	**$11,589**	**$15,206**	**$15,747**	**$4,162**	-	**$49,920**
5			**Base Forecast Total**	**71.9**	**92.8**	**77.4**	**78.9**	**19.0**	**340.0**	**$404**	**$2,051**	**$13,030**	**$13,108**	**$42,496**	**$37,938**	**$40,587**	**$10,179**	**$159,793**	-	-	-	**$18,704**	-	-	-	-	**$18,704**	**$404**	**$2,051**	**$13,030**	**$31,812**	**$42,496**	**$37,938**	**$40,587**	**$10,179**	**$178,496**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
6	ERP	Program Management Office	Program Management Office										$1,504	$5,458	$4,438	$7,285	$2,036	$20,721	-	-	-	$2,540	-	-	-	-	$2,540	-	-	-	$4,045	$5,458	$4,438	$7,285	$2,036	$23,262
7			**ERP Subtotal**										**$1,504**	**$5,458**	**$4,438**	**$7,285**	**$2,036**	**$20,721**	-	-	-	**$2,540**	-	-	-	-	**$2,540**	-	-	-	**$4,045**	**$5,458**	**$4,438**	**$7,285**	**$2,036**	**$23,262**
8	GIS	Program Management Office	Program Management Office										$1,117	$3,041	$3,149	$832	-	$8,140	-	-	-	$1,201	-	-	-	-	$1,201	-	-	-	$2,318	$3,041	$3,149	$832	-	$9,341
9			**GIS Subtotal**										**$1,117**	**$3,041**	**$3,149**	**$832**	-	**$8,140**	-	-	-	**$1,201**	-	-	-	-	**$1,201**	-	-	-	**$2,318**	**$3,041**	**$3,149**	**$832**	-	**$9,341**
10			**Contingencies Total**										**$2,622**	**$8,499**	**$7,588**	**$8,117**	**$2,036**	**$28,862**	-	-	-	**$3,741**	-	-	-	-	**$3,741**	-	-	-	**$6,362**	**$8,499**	**$7,588**	**$8,117**	**$2,036**	**$32,602**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
11	ERP	Program Management Office	Program Management Office										$462	$1,339	$1,199	$1,928	$540	$5,468	-	-	-	$770	-	-	-	-	$770	-	-	-	$1,233	$1,339	$1,199	$1,928	$540	$6,238
12			**ERP Subtotal**										**$462**	**$1,339**	**$1,199**	**$1,928**	**$540**	**$5,468**	-	-	-	**$770**	-	-	-	-	**$770**	-	-	-	**$1,233**	**$1,339**	**$1,199**	**$1,928**	**$540**	**$6,238**
13	GIS	Program Management Office	Program Management Office										$323	$803	$800	$209	-	$2,135	-	-	-	$415	-	-	-	-	$415	-	-	-	$737	$803	$800	$209	-	$2,549
14			**GIS Subtotal**										**$323**	**$803**	**$800**	**$209**	-	**$2,135**	-	-	-	**$415**	-	-	-	-	**$415**	-	-	-	**$737**	**$803**	**$800**	**$209**	-	**$2,549**
15			**Meals and Travel Total**	-	-	-	-	-	-	-	-	-	**$785**	**$2,142**	**$1,999**	**$2,137**	**$540**	**$7,602**	-	-	-	**$1,185**	-	-	-	-	**$1,185**	-	-	-	**$1,970**	**$2,142**	**$1,999**	**$2,137**	**$540**	**$8,787**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
16	ERP	Program Management Office	Program Management Office										$445	$1,619	$1,976	$2,664	$233	$6,936	-	-	-	-	-	-	-	-	-	-	-	-	$445	$1,619	$1,976	$2,664	$233	$6,936
17			**ERP Subtotal**										**$445**	**$1,619**	**$1,976**	**$2,664**	**$233**	**$6,936**	-	-	-	-	-	-	-	-	-	-	-	-	**$445**	**$1,619**	**$1,976**	**$2,664**	**$233**	**$6,936**
18	GIS	Program Management Office	Program Management Office										$525	$1,036	$1,094	$606	-	$3,259	-	-	-	-	-	-	-	-	-	-	-	-	$525	$1,036	$1,094	$606	-	$3,259
19			**GIS Subtotal**										**$525**	**$1,036**	**$1,094**	**$606**	-	**$3,259**	-	-	-	-	-	-	-	-	-	-	-	-	**$525**	**$1,036**	**$1,094**	**$606**	-	**$3,259**
20			**AFUDC Total**	-	-	-	-	-	-	-	-	-	**$969**	**$2,655**	**$3,070**	**$3,270**	**$233**	**$10,196**	-	-	-	-	-	-	-	-	-	-	-	-	**$969**	**$2,655**	**$3,070**	**$3,270**	**$233**	**$10,196**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
21	ERP	Program Management Office	Program Management Office										$2,826	-	-	-	-	$2,826	-	-	-	($16,012)	-	-	-	-	($16,012)	-	-	-	($13,186)	-	-	-	-	($13,186)
22			**ERP Subtotal**										**$2,826**	-	-	-	-	**$2,826**	-	-	-	**($16,012)**	-	-	-	-	**($16,012)**	-	-	-	**($13,186)**	-	-	-	-	**($13,186)**
23	GIS	Program Management Office	Program Management Office										$1,082	-	-	-	-	$1,082	-	-	-	($7,618)	-	-	-	-	($7,618)	-	-	-	($6,536)	-	-	-	-	($6,536)
24			**GIS Subtotal**										**$1,082**	-	-	-	-	**$1,082**	-	-	-	**($7,618)**	-	-	-	-	**($7,618)**	-	-	-	**($6,536)**	-	-	-	-	**($6,536)**
25			**Other Adjustments Total**	-	-	-	-	-	-	-	-	-	**$3,908**	-	-	-	-	**$3,908**	-	-	-	**($23,629)**	-	-	-	-	**($23,629)**	-	-	-	**($19,722)**	-	-	-	-	**($19,722)**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
26	ERP	Program Management Office	Program Management Office	46.4	59.4	43.9	70.3	19.0	238.9	$404	$1,668	$10,196	$12,759	$35,705	$29,805	$48,302	$12,987	$151,826	-	-	-	-	-	-	-	-	-	$404	$1,668	$10,196	$12,759	$35,705	$29,805	$48,302	$12,987	$151,826
27			**ERP Subtotal**	**46.4**	**59.4**	**43.9**	**70.3**	**19.0**	**238.9**	**$404**	**$1,668**	**$10,196**	**$12,759**	**$35,705**	**$29,805**	**$48,302**	**$12,987**	**$151,826**	-	-	-	-	-	-	-	-	-	**$404**	**$1,668**	**$10,196**	**$12,759**	**$35,705**	**$29,805**	**$48,302**	**$12,987**	**$151,826**
28	GIS	Program Management Office	Program Management Office	25.6	33.5	33.5	8.6	-	101.1	-	$383	$2,834	$8,633	$20,086	$20,789	$5,809	-	$58,534	-	-	-	-	-	-	-	-	-	-	$383	$2,834	$8,633	$20,086	$20,789	$5,809	-	$58,534
29			**GIS Subtotal**	**25.6**	**33.5**	**33.5**	**8.6**	-	**101.1**	-	**$383**	**$2,834**	**$8,633**	**$20,086**	**$20,789**	**$5,809**	-	**$58,534**				-	-	-	-	-	-	-	**$383**	**$2,834**	**$8,633**	**$20,086**	**$20,789**	**$5,809**	-	**$58,534**
30			**Program Management Office Grand Total**	**71.9**	**92.8**	**77.4**	**78.9**	**19.0**	**340.0**	**$404**	**$2,051**	**$13,030**	**$21,392**	**$55,791**	**$50,595**	**$54,111**	**$12,987**	**$210,360**	-	-	-	-	-	-	-	-	-	**$404**	**$2,051**	**$13,030**	**$21,392**	**$55,791**	**$50,595**	**$54,111**	**$12,987**	**$210,360**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5B
Pacific Gas and Electric Company
ERP and GIS Transformation
Program Management Office PG&E Labor Summary Workpaper
Thousands of Dollars - Nominal

Program Management Office Cost Group Workpaper Summary — PG&E Labor

PROGRAM	ERP &GIS
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Program Management Office	Program Management Office	16.0	27.1	16.4	26.6	7.2	93.3	$163	$675	$4,123	$2,336	$12,292	$9,089	$15,335	$4,275	$48,287	-	-	-	$4,119	-	-	-	-	$4,119	$163	$675	$4,123	$6,455	$12,292	$9,089	$15,335	$4,275	$52,407
2			**ERP Subtotal**	**16.0**	**27.1**	**16.4**	**26.6**	**7.2**	**93.3**	**$163**	**$675**	**$4,123**	**$2,336**	**$12,292**	**$9,089**	**$15,335**	**$4,275**	**$48,287**	-	-	-	**$4,119**	-	-	-	-	**$4,119**	**$163**	**$675**	**$4,123**	**$6,455**	**$12,292**	**$9,089**	**$15,335**	**$4,275**	**$52,407**
3	GIS	Program Management Office	Program Management Office	12.2	14.9	15.5	4.0	-	46.6	-	$179	$1,329	$2,426	$7,316	$7,930	$2,121	-	$21,302	-	-	-	$1,775	-	-	-	-	$1,775	-	$179	$1,329	$4,201	$7,316	$7,930	$2,121	-	$23,076
4			**GIS Subtotal**	**12.2**	**14.9**	**15.5**	**4.0**	**-**	**46.6**	-	**$179**	**$1,329**	**$2,426**	**$7,316**	**$7,930**	**$2,121**	-	**$21,302**	-	-	-	**$1,775**	-	-	-	-	**$1,775**	-	**$179**	**$1,329**	**$4,201**	**$7,316**	**$7,930**	**$2,121**	-	**$23,076**
5			**Base Forecast Total**	**28.2**	**42.0**	**31.8**	**30.6**	**7.2**	**139.9**	**$163**	**$854**	**$5,453**	**$4,762**	**$19,608**	**$17,019**	**$17,456**	**$4,275**	**$69,589**	-	-	-	**$5,894**	-	-	-	-	**$5,894**	**$163**	**$854**	**$5,453**	**$10,655**	**$19,608**	**$17,019**	**$17,456**	**$4,275**	**$75,483**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
6	ERP	Program Management Office	Program Management Office										$467	$2,458	$1,818	$3,067	$855	$8,665	-	-	-	$824	-	-	-	-	$824	-	-	-	$1,291	$2,458	$1,818	$3,067	$855	$9,489
7			**ERP Subtotal**										**$467**	**$2,458**	**$1,818**	**$3,067**	**$855**	**$8,665**	-	-	-	**$824**	-	-	-	-	**$824**	-	-	-	**$1,291**	**$2,458**	**$1,818**	**$3,067**	**$855**	**$9,489**
8	GIS	Program Management Office	Program Management Office										$485	$1,463	$1,586	$424	-	$3,959	-	-	-	$355	-	-	-	-	$355	-	-	-	$840	$1,463	$1,586	$424	-	$4,313
9			**GIS Subtotal**										**$485**	**$1,463**	**$1,586**	**$424**	-	**$3,959**	-	-	-	**$355**	-	-	-	-	**$355**	-	-	-	**$840**	**$1,463**	**$1,586**	**$424**	-	**$4,313**
10			**Contingencies Total**	-	-	-	-	-	-	-	-	-	**$952**	**$3,922**	**$3,404**	**$3,491**	**$855**	**$12,624**	-	-	-	**$1,179**	-	-	-	-	**$1,179**	-	-	-	**$2,131**	**$3,922**	**$3,404**	**$3,491**	**$855**	**$13,803**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
11	ERP	Program Management Office	Program Management Office										$23	$123	$91	$153	$43	$433	-	-	-	$41	-	-	-	-	$41	-	-	-	$65	$123	$91	$153	$43	$474
12			**ERP Subtotal**										**$23**	**$123**	**$91**	**$153**	**$43**	**$433**	-	-	-	**$41**	-	-	-	-	**$41**	-	-	-	**$65**	**$123**	**$91**	**$153**	**$43**	**$474**
13	GIS	Program Management Office	Program Management Office										$24	$73	$79	$21	-	$198	-	-	-	$18	-	-	-	-	$18	-	-	-	$42	$73	$79	$21	-	$216
14			**GIS Subtotal**										**$24**	**$73**	**$79**	**$21**	-	**$198**	-	-	-	**$18**	-	-	-	-	**$18**	-	-	-	**$42**	**$73**	**$79**	**$21**	-	**$216**
15			**Meals and Travel Total**	-	-	-	-	-	-	-	-	-	**$48**	**$196**	**$170**	**$175**	**$43**	**$631**	-	-	-	**$59**	-	-	-	-	**$59**	-	-	-	**$107**	**$196**	**$170**	**$175**	**$43**	**$690**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
16	ERP	Program Management Office	Program Management Office										$185	$672	$816	$1,100	$96	$2,869	-	-	-	-	-	-	-	-	-	-	-	-	$185	$672	$816	$1,100	$96	$2,869
17			**ERP Subtotal**										**$185**	**$672**	**$816**	**$1,100**	**$96**	**$2,869**	-	-	-	-	-	-	-	-	-	-	-	-	**$185**	**$672**	**$816**	**$1,100**	**$96**	**$2,869**
18	GIS	Program Management Office	Program Management Office										$230	$469	$508	$283	-	$1,490	-	-	-	-	-	-	-	-	-	-	-	-	$230	$469	$508	$283	-	$1,490
19			**GIS Subtotal**										**$230**	**$469**	**$508**	**$283**	-	**$1,490**	-	-	-	-	-	-	-	-	-	-	-	-	**$230**	**$469**	**$508**	**$283**	-	**$1,490**
20			**AFUDC Total**	-	-	-	-	-	-	-	-	-	**$415**	**$1,140**	**$1,324**	**$1,383**	**$96**	**$4,359**	-	-	-	-	-	-	-	-	-	-	-	-	**$415**	**$1,140**	**$1,324**	**$1,383**	**$96**	**$4,359**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
21	ERP	Program Management Office	Program Management Office										$1,143	-	-	-	-	$1,143	-	-	-	($4,984)	-	-	-	-	($4,984)	-	-	-	($3,842)	-	-	-	-	($3,842)
22			**ERP Subtotal**										**$1,143**	-	-	-	-	**$1,143**	-	-	-	**($4,984)**	-	-	-	-	**($4,984)**	-	-	-	**($3,842)**	-	-	-	-	**($3,842)**
23	GIS	Program Management Office	Program Management Office										$508	-	-	-	-	$508	-	-	-	($2,147)	-	-	-	-	($2,147)	-	-	-	($1,640)	-	-	-	-	($1,640)
24			**GIS Subtotal**										**$508**	-	-	-	-	**$508**	-	-	-	**($2,147)**	-	-	-	-	**($2,147)**	-	-	-	**($1,640)**	-	-	-	-	**($1,640)**
25			**Other Adjustments Total**	-	-	-	-	-	-	-	-	-	**$1,650**	-	-	-	-	**$1,650**	-	-	-	**($7,131)**	-	-	-	-	**($7,131)**	-	-	-	**($5,481)**	-	-	-	-	**($5,481)**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
26	ERP	Program Management Office	Program Management Office	16.0	27.1	16.4	26.6	7.2	93.3	$163	$675	$4,123	$4,154	$15,545	$11,814	$19,656	$5,268	$61,398	-	-	-	-	-	-	-	-	-	$163	$675	$4,123	$4,154	$15,545	$11,814	$19,656	$5,268	$61,398
27			**ERP Subtotal**	**16.0**	**27.1**	**16.4**	**26.6**	**7.2**	**93.3**	**$163**	**$675**	**$4,123**	**$4,154**	**$15,545**	**$11,814**	**$19,656**	**$5,268**	**$61,398**	-	-	-	-	-	-	-	-	-	**$163**	**$675**	**$4,123**	**$4,154**	**$15,545**	**$11,814**	**$19,656**	**$5,268**	**$61,398**
28	GIS	Program Management Office	Program Management Office	12.2	14.9	15.5	4.0	-	46.6	-	$179	$1,329	$3,673	$9,321	$10,103	$2,849	-	$27,455	-	-	-	-	-	-	-	-	-	-	$179	$1,329	$3,673	$9,321	$10,103	$2,849	-	$27,455
29			**GIS Subtotal**	**12.2**	**14.9**	**15.5**	**4.0**	-	**46.6**	-	**$179**	**$1,329**	**$3,673**	**$9,321**	**$10,103**	**$2,849**	-	**$27,455**	-	-	-	-	-	-	-	-	-	-	**$179**	**$1,329**	**$3,673**	**$9,321**	**$10,103**	**$2,849**	-	**$27,455**
30			**Program Management Office Grand Total**	**28.2**	**42.0**	**31.8**	**30.6**	**7.2**	**139.9**	**$163**	**$854**	**$5,453**	**$7,827**	**$24,866**	**$21,917**	**$22,505**	**$5,268**	**$88,853**	-	-	-	-	-	-	-	-	-	**$163**	**$854**	**$5,453**	**$7,827**	**$24,866**	**$21,917**	**$22,505**	**$5,268**	**$88,853**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5C
Pacific Gas and Electric Company
ERP and GIS Transformation
Program Management Office External / Systems Integrator Labor Summary Workpaper
Thousands of Dollars - Nominal

Program Management Office Cost Group Workpaper Summary — External / Systems Integrator Labor

PROGRAM	ERP &GIS
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Program Management Office	Program Management Office	30.4	32.3	27.5	43.7	11.8	145.6	$240	$994	$6,073	$5,186	$14,998	$13,103	$21,090	$5,904	$67,588	-	-	-	$8,582	-	-	-	-	$8,582	$240	$994	$6,073	$13,768	$14,998	$13,103	$21,090	$5,904	$76,170
2			**ERP Subtotal**	**30.4**	**32.3**	**27.5**	**43.7**	**11.8**	**145.6**	**$240**	**$994**	**$6,073**	**$5,186**	**$14,998**	**$13,103**	**$21,090**	**$5,904**	**$67,588**	-	-	-	**$8,582**	-	-	-	-	**$8,582**	**$240**	**$994**	**$6,073**	**$13,768**	**$14,998**	**$13,103**	**$21,090**	**$5,904**	**$76,170**
3	GIS	Program Management Office	Program Management Office	13.4	18.5	18.0	4.6	-	54.5	-	$203	$1,505	$3,161	$7,890	$7,817	$2,041	-	$22,616	-	-	-	$4,228	-	-	-	-	$4,228	-	$203	$1,505	$7,389	$7,890	$7,817	$2,041	-	$26,844
4			**GIS Subtotal**	**13.4**	**18.5**	**18.0**	**4.6**	**-**	**54.5**	-	**$203**	**$1,505**	**$3,161**	**$7,890**	**$7,817**	**$2,041**	-	**$22,616**	-	-	-	**$4,228**	-	-	-	-	**$4,228**	-	**$203**	**$1,505**	**$7,389**	**$7,890**	**$7,817**	**$2,041**	-	**$26,844**
5			**Base Forecast Total**	**43.7**	**50.8**	**45.5**	**48.3**	**11.8**	**200.2**	**$240**	**$1,197**	**$7,578**	**$8,347**	**$22,888**	**$20,919**	**$23,131**	**$5,904**	**$90,204**	-	-	-	**$12,810**	-	-	-	-	**$12,810**	**$240**	**$1,197**	**$7,578**	**$21,157**	**$22,888**	**$20,919**	**$23,131**	**$5,904**	**$103,014**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
6	ERP	Program Management Office	Program Management Office										$1,037	$3,000	$2,621	$4,218	$1,181	$12,056	-	-	-	$1,716	-	-	-	-	$1,716	-	-	-	$2,754	$3,000	$2,621	$4,218	$1,181	$13,773
7			**ERP Subtotal**										**$1,037**	**$3,000**	**$2,621**	**$4,218**	**$1,181**	**$12,056**	-	-	-	**$1,716**	-	-	-	-	**$1,716**	-	-	-	**$2,754**	**$3,000**	**$2,621**	**$4,218**	**$1,181**	**$13,773**
8	GIS	Program Management Office	Program Management Office										$632	$1,578	$1,563	$408	-	$4,182	-	-	-	$846	-	-	-	-	$846	-	-	-	$1,478	$1,578	$1,563	$408	-	$5,027
9			**GIS Subtotal**										**$632**	**$1,578**	**$1,563**	**$408**	-	**$4,182**	-	-	-	**$846**	-	-	-	-	**$846**	-	-	-	**$1,478**	**$1,578**	**$1,563**	**$408**	-	**$5,027**
10			**Contingencies Total**	-	-	-	-	-	-	-	-	-	**$1,669**	**$4,578**	**$4,184**	**$4,626**	**$1,181**	**$16,238**	-	-	-	**$2,562**	-	-	-	-	**$2,562**	-	-	-	**$4,231**	**$4,578**	**$4,184**	**$4,626**	**$1,181**	**$18,800**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
11	ERP	Program Management Office	Program Management Office										$439	$1,216	$1,109	$1,774	$497	$5,034	-	-	-	$729	-	-	-	-	$729	-	-	-	$1,168	$1,216	$1,109	$1,774	$497	$5,764
12			**ERP Subtotal**										**$439**	**$1,216**	**$1,109**	**$1,774**	**$497**	**$5,034**	-	-	-	**$729**	-	-	-	-	**$729**	-	-	-	**$1,168**	**$1,216**	**$1,109**	**$1,774**	**$497**	**$5,764**
13	GIS	Program Management Office	Program Management Office										$299	$730	$721	$188	-	$1,937	-	-	-	$397	-	-	-	-	$397	-	-	-	$695	$730	$721	$188	-	$2,334
14			**GIS Subtotal**										**$299**	**$730**	**$721**	**$188**	-	**$1,937**	-	-	-	**$397**	-	-	-	-	**$397**	-	-	-	**$695**	**$730**	**$721**	**$188**	-	**$2,334**
15			**Meals and Travel Total**	-	-	-	-	-	-	-	-	-	**$737**	**$1,945**	**$1,829**	**$1,962**	**$497**	**$6,971**	-	-	-	**$1,126**	-	-	-	-	**$1,126**	-	-	-	**$1,863**	**$1,945**	**$1,829**	**$1,962**	**$497**	**$8,097**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
16	ERP	Program Management Office	Program Management Office										$260	$947	$1,160	$1,564	$137	$4,067	-	-	-	-	-	-	-	-	-	-	-	-	$260	$947	$1,160	$1,564	$137	$4,067
17			**ERP Subtotal**										**$260**	**$947**	**$1,160**	**$1,564**	**$137**	**$4,067**	-	-	-	-	-	-	-	-	-	-	-	-	**$260**	**$947**	**$1,160**	**$1,564**	**$137**	**$4,067**
18	GIS	Program Management Office	Program Management Office										$294	$567	$585	$323	-	$1,770	-	-	-	-	-	-	-	-	-	-	-	-	$294	$567	$585	$323	-	$1,770
19			**GIS Subtotal**										**$294**	**$567**	**$585**	**$323**	-	**$1,770**	-	-	-	-	-	-	-	-	-	-	-	-	**$294**	**$567**	**$585**	**$323**	-	**$1,770**
20			**AFUDC Total**	-	-	-	-	-	-	-	-	-	**$554**	**$1,514**	**$1,745**	**$1,886**	**$137**	**$5,837**	-	-	-	-	-	-	-	-	-	-	-	-	**$554**	**$1,514**	**$1,745**	**$1,886**	**$137**	**$5,837**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
21	ERP	Program Management Office	Program Management Office										$1,683	-	-	-	-	$1,683	-	-	-	($11,027)	-	-	-	-	($11,027)	-	-	-	($9,344)	-	-	-	-	($9,344)
22			**ERP Subtotal**										**$1,683**	-	-	-	-	**$1,683**	-	-	-	**($11,027)**	-	-	-	-	**($11,027)**	-	-	-	**($9,344)**	-	-	-	-	**($9,344)**
23	GIS	Program Management Office	Program Management Office										$575	-	-	-	-	$575	-	-	-	($5,471)	-	-	-	-	($5,471)	-	-	-	($4,896)	-	-	-	-	($4,896)
24			**GIS Subtotal**										**$575**	-	-	-	-	**$575**	-	-	-	**($5,471)**	-	-	-	-	**($5,471)**	-	-	-	**($4,896)**	-	-	-	-	**($4,896)**
25			**Other Adjustments Total**	-	-	-	-	-	-	-	-	-	**$2,257**	-	-	-	-	**$2,257**	-	-	-	**($16,498)**	-	-	-	-	**($16,498)**	-	-	-	**($14,240)**	-	-	-	-	**($14,240)**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
26	ERP	Program Management Office	Program Management Office	30.4	32.3	27.5	43.7	11.8	145.6	$240	$994	$6,073	$8,605	$20,161	$17,992	$28,646	$7,718	$90,428	-	-	-	-	-	-	-	-	-	$240	$994	$6,073	$8,605	$20,161	$17,992	$28,646	$7,718	$90,428
27			**ERP Subtotal**	**30.4**	**32.3**	**27.5**	**43.7**	**11.8**	**145.6**	**$240**	**$994**	**$6,073**	**$8,605**	**$20,161**	**$17,992**	**$28,646**	**$7,718**	**$90,428**	-	-	-	-	-	-	-	-	-	**$240**	**$994**	**$6,073**	**$8,605**	**$20,161**	**$17,992**	**$28,646**	**$7,718**	**$90,428**
28	GIS	Program Management Office	Program Management Office	13.4	18.5	18.0	4.6	-	54.5	-	$203	$1,505	$4,960	$10,764	$10,686	$2,960	-	$31,079	-	-	-	-	-	-	-	-	-	-	$203	$1,505	$4,960	$10,764	$10,686	$2,960	-	$31,079
29			**GIS Subtotal**	**13.4**	**18.5**	**18.0**	**4.6**	**-**	**54.5**	-	**$203**	**$1,505**	**$4,960**	**$10,764**	**$10,686**	**$2,960**	-	**$31,079**				-	-	-	-	-	-	-	**$203**	**$1,505**	**$4,960**	**$10,764**	**$10,686**	**$2,960**	-	**$31,079**
30			**Program Management Office Grand Total**	**43.7**	**50.8**	**45.5**	**48.3**	**11.8**	**200.2**	**$240**	**$1,197**	**$7,578**	**$13,565**	**$30,925**	**$28,678**	**$31,606**	**$7,718**	**$121,507**	-	-	-	-	-	-	-	-	-	**$240**	**$1,197**	**$7,578**	**$13,565**	**$30,925**	**$28,678**	**$31,606**	**$7,718**	**$121,507**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Program Management Office PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Program Management Office PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
ERP - Program Management Office PG&E Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Program Management Office	Program Management Office	Admin Support	PG&E Labor	$249	-	-	-	-	$249	0.1	-	-	-	-	0.1
2	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	$201	$254	$316	$328	$339	$296	1.9	3.5	3.8	5.8	1.6	16.6
3	Program Management Office	Program Management Office	Business Lead	PG&E Labor	$201	$254	$316	$328	$339	$296	0.3	0.5	0.5	0.8	0.2	2.2
4	Program Management Office	Program Management Office	Business Manager	PG&E Labor	$201	$254	$316	$328	$339	$296	0.3	0.5	0.5	0.8	0.2	2.4
5	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	$228	$251	$306	$317	$328	$278	5.6	9.2	4.6	7.6	2.0	29.0
6	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	$230	$250	$316	$328	$339	$273	4.3	6.5	2.1	3.4	0.9	17.2
7	Program Management Office	Program Management Office	Program Manager	PG&E Labor	$226	$253	$300	$311	$322	$283	3.6	6.9	4.9	8.2	2.2	25.8
8			**FTE Subtotal**	**PG&E Labor**							**16.0**	**27.1**	**16.4**	**26.6**	**7.2**	**93.3**

					(C)						(D) = (A) * (C)					
ERP - Program Management Office PG&E Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
9	Program Management Office	Program Management Office	Admin Support	PG&E Labor	89	-	-	-	-	89	$22	-	-	-	-	$22
10	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	338	6,362	6,803	10,473	2,870	26,847	$68	$1,618	$2,152	$3,434	$973	$8,245
11	Program Management Office	Program Management Office	Business Lead	PG&E Labor	46	860	919	1,415	388	3,628	$9	$219	$291	$464	$131	$1,114
12	Program Management Office	Program Management Office	Business Manager	PG&E Labor	49	919	983	1,513	415	3,878	$10	$234	$311	$496	$140	$1,191
13	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	4,000	16,629	8,202	13,663	3,662	46,156	$913	$4,179	$2,510	$4,336	$1,201	$13,139
14	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	3,106	11,653	3,726	6,206	1,664	26,355	$714	$2,908	$1,178	$2,035	$564	$7,399
15	Program Management Office	Program Management Office	Program Manager	PG&E Labor	2,656	12,364	8,812	14,679	3,935	42,446	$600	$3,134	$2,646	$4,570	$1,266	$12,216
16			**Capital Subtotal**	**PG&E Labor**	**10,283**	**48,788**	**29,445**	**47,950**	**12,933**	**149,399**	**$2,336**	**$12,292**	**$9,089**	**$15,335**	**$4,275**	**$43,326**

					(E)						(F) = (A) * (E)					
ERP - Program Management Office PG&E Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
17	Program Management Office	Program Management Office	Admin Support	PG&E Labor	59	-	-	-	-	59	$15	-	-	-	-	$15
18	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	3,045	-	-	-	-	3,045	$611	-	-	-	-	$611
19	Program Management Office	Program Management Office	Business Lead	PG&E Labor	412	-	-	-	-	412	$83	-	-	-	-	$83
20	Program Management Office	Program Management Office	Business Manager	PG&E Labor	440	-	-	-	-	440	$88	-	-	-	-	$88
21	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	5,999	-	-	-	-	5,999	$1,369	-	-	-	-	$1,369
22	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	4,659	-	-	-	-	4,659	$1,070	-	-	-	-	$1,070
23	Program Management Office	Program Management Office	Program Manager	PG&E Labor	3,909	-	-	-	-	3,909	$883	-	-	-	-	$883
24			**Expense Subtotal**	**PG&E Labor**	**18,524**	**-**	**-**	**-**	**-**	**18,524**	**$4,119**	**-**	**-**	**-**	**-**	**$4,119**

					(G) = (C) + (E)						(H) = (D) + (F)					
ERP - Program Management Office PG&E Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
25	Program Management Office	Program Management Office	Admin Support	PG&E Labor	148	-	-	-	-	148	$37	-	-	-	-	$37
26	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	3,384	6,362	6,803	10,473	2,870	29,892	$679	$1,618	$2,152	$3,434	$973	$8,856
27	Program Management Office	Program Management Office	Business Lead	PG&E Labor	457	860	919	1,415	388	4,040	$92	$219	$291	$464	$131	$1,197
28	Program Management Office	Program Management Office	Business Manager	PG&E Labor	489	919	983	1,513	415	4,318	$98	$234	$311	$496	$140	$1,279
29	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	9,999	16,629	8,202	13,663	3,662	52,155	$2,282	$4,179	$2,510	$4,336	$1,201	$14,508
30	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	7,766	11,653	3,726	6,206	1,664	31,014	$1,784	$2,908	$1,178	$2,035	$564	$8,470
31	Program Management Office	Program Management Office	Program Manager	PG&E Labor	6,565	12,364	8,812	14,679	3,935	46,355	$1,483	$3,134	$2,646	$4,570	$1,266	$13,099
32			**Grand Total**	**PG&E Labor**	**28,807**	**48,788**	**29,445**	**47,950**	**12,933**	**167,923**	**$6,455**	**$12,292**	**$9,089**	**$15,335**	**$4,275**	**$47,445**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Program Management Office External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Program Management Office External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

ERP - Program Management Office External / SI Labor					(A) Staffing Rate $/HR						(B) Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Program Management Office	Program Management Office	Business Analyst	External Labor	$184	$191	$199	$204	$211	$198	2.8	3.6	3.9	5.9	1.6	17.9
2	Program Management Office	Program Management Office	Business Lead	External Labor	$184	$191	$199	$204	$211	$198	1.9	2.5	2.7	4.1	1.1	12.4
3	Program Management Office	Program Management Office	Business Manager	External Labor	$184	$191	$199	$204	$211	$198	1.4	1.8	1.9	2.9	0.8	8.8
4	Program Management Office	Program Management Office	Consultant (Other SI)	External Labor	$251	$259	$271	$278	$288	$267	3.3	4.7	2.8	4.7	1.3	16.7
5	Program Management Office	Program Management Office	PMO Analyst	External Labor	$244	$250	$258	$266	$275	$257	9.8	9.0	7.5	12.3	3.3	41.9
6	Program Management Office	Program Management Office	PMO Lead	External Labor	$291	$311	$327	$325	$338	$315	3.1	2.8	2.3	3.6	1.0	12.8
7	Program Management Office	Program Management Office	Principal	External Labor	$351	$371	$384	$380	$394	$374	3.1	3.3	2.8	4.1	1.1	14.4
8	Program Management Office	Program Management Office	Program Manager	External Labor	$265	$279	$293	$295	$306	$285	5.0	4.5	3.6	5.9	1.6	20.7
9			**FTE Subtotal**	**External Labor**							**30.4**	**32.3**	**27.5**	**43.7**	**11.8**	**145.6**

ERP - Program Management Office External / SI Labor					(C) Capital Hours						(D) = (A) * (C) Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
10	Program Management Office	Program Management Office	Business Analyst	External Labor	501	6,567	6,944	10,688	2,927	27,627	$92	$1,254	$1,380	$2,178	$618	$5,521
11	Program Management Office	Program Management Office	Business Lead	External Labor	349	4,577	4,840	7,450	2,041	19,258	$64	$874	$962	$1,518	$431	$3,848
12	Program Management Office	Program Management Office	Business Manager	External Labor	248	3,244	3,431	5,281	1,446	13,650	$46	$619	$682	$1,076	$305	$2,728
13	Program Management Office	Program Management Office	Consultant (Other SI)	External Labor	2,383	8,376	5,045	8,403	2,251	26,458	$597	$2,168	$1,367	$2,333	$648	$7,112
14	Program Management Office	Program Management Office	PMO Analyst	External Labor	6,525	16,186	13,511	22,209	5,971	64,402	$1,624	$4,050	$3,491	$5,900	$1,642	$16,707
15	Program Management Office	Program Management Office	PMO Lead	External Labor	2,405	5,104	4,150	6,553	1,762	19,974	$735	$1,586	$1,358	$2,131	$595	$6,404
16	Program Management Office	Program Management Office	Principal	External Labor	2,599	5,853	5,066	7,360	1,998	22,877	$1,006	$2,174	$1,946	$2,796	$787	$8,710
17	Program Management Office	Program Management Office	Program Manager	External Labor	3,754	8,143	6,553	10,695	2,869	32,014	$1,022	$2,273	$1,917	$3,159	$879	$9,250
18			**Capital Subtotal**	**External Labor**	**18,764**	**58,050**	**49,541**	**78,639**	**21,266**	**226,259**	**$5,186**	**$14,998**	**$13,103**	**$21,090**	**$5,904**	**$60,281**

ERP - Program Management Office External / SI Labor					(E) Expense Hours						(F) = (A) * (E) Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
19	Program Management Office	Program Management Office	Business Analyst	External Labor	4,509	-	-	-	-	4,509	$829	-	-	-	-	$829
20	Program Management Office	Program Management Office	Business Lead	External Labor	3,143	-	-	-	-	3,143	$578	-	-	-	-	$578
21	Program Management Office	Program Management Office	Business Manager	External Labor	2,228	-	-	-	-	2,228	$410	-	-	-	-	$410
22	Program Management Office	Program Management Office	Consultant (Other SI)	External Labor	3,574	-	-	-	-	3,574	$896	-	-	-	-	$896
23	Program Management Office	Program Management Office	PMO Analyst	External Labor	11,051	-	-	-	-	11,051	$2,668	-	-	-	-	$2,668
24	Program Management Office	Program Management Office	PMO Lead	External Labor	3,101	-	-	-	-	3,101	$866	-	-	-	-	$866
25	Program Management Office	Program Management Office	Principal	External Labor	2,967	-	-	-	-	2,967	$948	-	-	-	-	$948
26	Program Management Office	Program Management Office	Program Manager	External Labor	5,323	-	-	-	-	5,323	$1,388	-	-	-	-	$1,388
27			**Expense Subtotal**	**External Labor**	**35,896**	**-**	**-**	**-**	**-**	**35,896**	**$8,582**	**-**	**-**	**-**	**-**	**$8,582**

ERP - Program Management Office External / SI Labor					(G) = (C) + (E) Total Hours						(H) = (D) + (F) Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
28	Program Management Office	Program Management Office	Business Analyst	External Labor	5,010	6,567	6,944	10,688	2,927	32,136	$921	$1,254	$1,380	$2,178	$618	$6,350
29	Program Management Office	Program Management Office	Business Lead	External Labor	3,492	4,577	4,840	7,450	2,041	22,401	$642	$874	$962	$1,518	$431	$4,426
30	Program Management Office	Program Management Office	Business Manager	External Labor	2,475	3,244	3,431	5,281	1,446	15,877	$455	$619	$682	$1,076	$305	$3,137
31	Program Management Office	Program Management Office	Consultant (Other SI)	External Labor	5,957	8,376	5,045	8,403	2,251	30,033	$1,493	$2,168	$1,367	$2,333	$648	$8,008
32	Program Management Office	Program Management Office	PMO Analyst	External Labor	17,576	16,186	13,511	22,209	5,971	75,453	$4,293	$4,050	$3,491	$5,900	$1,642	$19,376
33	Program Management Office	Program Management Office	PMO Lead	External Labor	5,506	5,104	4,150	6,553	1,762	23,075	$1,601	$1,586	$1,358	$2,131	$595	$7,270
34	Program Management Office	Program Management Office	Principal	External Labor	5,566	5,853	5,066	7,360	1,998	25,844	$1,954	$2,174	$1,946	$2,796	$787	$9,657
35	Program Management Office	Program Management Office	Program Manager	External Labor	9,076	8,143	6,553	10,695	2,869	37,336	$2,409	$2,273	$1,917	$3,159	$879	$10,638
36			**Grand Total**	**External Labor**	**54,659**	**58,050**	**49,541**	**78,639**	**21,266**	**262,155**	**$13,768**	**$14,998**	**$13,103**	**$21,090**	**$5,904**	**$68,863**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5F
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Program Management Office PG&E Labor Workpaper
Thousands of Dollars - Nominal

GIS — Program Management Office PG&E Labor Workpaper

PROGRAM	GIS
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Program Management Office PG&E Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	$150	$273	$285	$296	-	$246	2.9	3.7	3.2	0.8	-	10.7
2	Program Management Office	Program Management Office	Business Director	PG&E Labor	$212	$273	$285	$296	-	$263	0.9	1.1	1.1	0.3	-	3.4
3	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	$189	$272	$284	$295	-	$256	13.5	18.2	18.5	4.8	-	54.9
4	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	$188	$273	$285	$296	-	$256	0.9	1.1	1.1	0.3	-	3.4
5	Program Management Office	Program Management Office	Business Lead	PG&E Labor							-	-	-	-	-	-
6	Program Management Office	Program Management Office	Business Sr. Director	PG&E Labor	$212	$273	$285	$296	-	$263	0.9	1.1	1.1	0.3	-	3.4
7	Program Management Office	Program Management Office	IT Lead	PG&E Labor	$188	$273	$285	$296	-	$257	1.2	1.5	1.6	0.4	-	4.6
8	Program Management Office	Program Management Office	Program Manager	PG&E Labor	$188	$273	$285	$295	-	$258	4.1	5.5	5.5	1.4	-	16.6
9	Program Management Office	Program Management Office	IT Director	PG&E Labor	$214	$271	$283	$294	-	$261	1.0	1.2	1.2	0.3	-	3.6
10			**FTE Subtotal**	**PG&E Labor**							**22.5**	**29.6**	**30.1**	**7.8**	**-**	**90.0**

					(C)						(D) = (A) * (C)					
GIS - Program Management Office PG&E Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
11	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	167	1,968	2,000	520	-	4,655	$44	$538	$571	$154	-	$1,306
12	Program Management Office	Program Management Office	Business Director	PG&E Labor	1,003	1,968	2,000	520	-	5,491	$263	$538	$571	$154	-	$1,525
13	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	2,767	8,315	8,912	2,284	-	22,278	$720	$2,261	$2,531	$673	-	$6,185
14	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	669	1,968	2,000	520	-	5,157	$175	$538	$571	$154	-	$1,438
15	Program Management Office	Program Management Office	Business Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
16	Program Management Office	Program Management Office	Business Sr. Director	PG&E Labor	1,003	1,968	2,000	520	-	5,491	$263	$538	$571	$154	-	$1,525
17	Program Management Office	Program Management Office	IT Lead	PG&E Labor	259	702	864	216	-	2,041	$68	$192	$247	$64	-	$570
18	Program Management Office	Program Management Office	Program Manager	PG&E Labor	2,387	7,872	8,000	2,080	-	20,339	$624	$2,147	$2,278	$615	-	$5,663
19	Program Management Office	Program Management Office	IT Director	PG&E Labor	1,044	2,088	2,088	522	-	5,742	$271	$566	$591	$153	-	$1,580
20			**Capital Subtotal**	**PG&E Labor**	**9,300**	**26,849**	**27,864**	**7,182**	**-**	**71,195**	**$2,426**	**$7,316**	**$7,930**	**$2,121**	**-**	**$19,793**

					(E)						(F) = (A) * (E)					
GIS - Program Management Office PG&E Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
21	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	1,505	-	-	-	-	1,505	$208	-	-	-	-	$208
22	Program Management Office	Program Management Office	Business Director	PG&E Labor	669	-	-	-	-	669	$92	-	-	-	-	$92
23	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	4,151	-	-	-	-	4,151	$590	-	-	-	-	$590
24	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	1,003	-	-	-	-	1,003	$139	-	-	-	-	$139
25	Program Management Office	Program Management Office	Business Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
26	Program Management Office	Program Management Office	Business Sr. Director	PG&E Labor	669	-	-	-	-	669	$92	-	-	-	-	$92
27	Program Management Office	Program Management Office	IT Lead	PG&E Labor	389	-	-	-	-	389	$54	-	-	-	-	$54
28	Program Management Office	Program Management Office	Program Manager	PG&E Labor	3,581	-	-	-	-	3,581	$499	-	-	-	-	$499
29	Program Management Office	Program Management Office	IT Director	PG&E Labor	696	-	-	-	-	696	$101	-	-	-	-	$101
30			**Expense Subtotal**	**PG&E Labor**	**12,662**	**-**	**-**	**-**	**-**	**12,662**	**$1,775**	**-**	**-**	**-**	**-**	**$1,775**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Program Management Office PG&E Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
31	Program Management Office	Program Management Office	Business Analyst	PG&E Labor	1,672	1,968	2,000	520	-	6,160	$252	$538	$571	$154	-	$1,514
32	Program Management Office	Program Management Office	Business Director	PG&E Labor	1,672	1,968	2,000	520	-	6,160	$355	$538	$571	$154	-	$1,617
33	Program Management Office	Program Management Office	PMO Analyst	PG&E Labor	6,918	8,315	8,912	2,284	-	26,429	$1,310	$2,261	$2,531	$673	-	$6,775
34	Program Management Office	Program Management Office	PMO Lead	PG&E Labor	1,672	1,968	2,000	520	-	6,160	$314	$538	$571	$154	-	$1,576
35	Program Management Office	Program Management Office	Business Lead	PG&E Labor	-	-	-	-	-	-	-	-	-	-	-	-
36	Program Management Office	Program Management Office	Business Sr. Director	PG&E Labor	1,672	1,968	2,000	520	-	6,160	$355	$538	$571	$154	-	$1,617
37	Program Management Office	Program Management Office	IT Lead	PG&E Labor	648	702	864	216	-	2,430	$122	$192	$247	$64	-	$624
38	Program Management Office	Program Management Office	Program Manager	PG&E Labor	5,968	7,872	8,000	2,080	-	23,920	$1,123	$2,147	$2,278	$615	-	$6,162
39	Program Management Office	Program Management Office	IT Director	PG&E Labor	1,740	2,088	2,088	522	-	6,438	$372	$566	$591	$153	-	$1,681
40			**Grand Total**	**PG&E Labor**	**21,962**	**26,849**	**27,864**	**7,182**	**-**	**83,857**	**$4,201**	**$7,316**	**$7,930**	**$2,121**	**-**	**$21,567**

ADDITIONAL WORKPAPER NOTES: A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-5G
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Program Management Office External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

GIS — Program Management Office External / Systems Integrator (SI) Workpaper

PROGRAM	GIS
COST GROUP	Program Management Office
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the PMO forecast using Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Program Management Office External / SI Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Program Management Office	Program Management Office	Business Analyst	External Labor	$237	$196	$184	$180	-	$202	2.0	2.6	2.1	0.5	-	7.2
2	Program Management Office	Program Management Office	PMO Analyst	External Labor	$300	$239	$244	$249	-	$256	9.6	13.6	13.5	3.5	-	40.2
3	Program Management Office	Program Management Office	Business Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
4	Program Management Office	Program Management Office	Business Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
5	Program Management Office	Program Management Office	IT Lead	External Labor	$595	$264	$270	$276	-	$349	0.8	1.1	1.1	0.3	-	3.3
6	Program Management Office	Program Management Office	Program Manager	External Labor	$248	$264	$270	$276	-	$263	0.8	1.1	1.1	0.3	-	3.3
7	Program Management Office	Program Management Office	Principal	External Labor	$495	$369	$378	$387	-	$405	0.1	0.2	0.2	0.0	-	0.5
8			**FTE Subtotal**	**External Labor**							**13.4**	**18.5**	**18.0**	**4.6**	**-**	**54.5**

					(C)						(D) = (A) * (C)					
GIS - Program Management Office External / SI Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
9	Program Management Office	Program Management Office	Business Analyst	External Labor	422	4,730	3,848	922	-	9,920	$110	$926	$708	$165	-	$1,910
10	Program Management Office	Program Management Office	PMO Analyst	External Labor	7,821	24,434	24,352	6,276	-	62,883	$2,514	$5,828	$5,940	$1,563	-	$15,845
11	Program Management Office	Program Management Office	Business Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
12	Program Management Office	Program Management Office	Business Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
13	Program Management Office	Program Management Office	IT Lead	External Labor	588	1,966	1,974	520	-	5,048	$350	$518	$533	$144	-	$1,545
14	Program Management Office	Program Management Office	Program Manager	External Labor	590	1,966	1,974	520	-	5,050	$146	$518	$533	$144	-	$1,341
15	Program Management Office	Program Management Office	Principal	External Labor	81	270	270	68	-	689	$40	$100	$102	$26	-	$268
16			**Capital Subtotal**	**External Labor**	**9,502**	**33,366**	**32,417**	**8,305**	**-**	**83,589**	**$3,161**	**$7,890**	**$7,817**	**$2,041**	**-**	**$20,908**

					(E)						(F) = (A) * (E)					
GIS - Program Management Office External / SI Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
17	Program Management Office	Program Management Office	Business Analyst	External Labor	3,109	-	-	-	-	3,109	$727	-	-	-	-	$727
18	Program Management Office	Program Management Office	PMO Analyst	External Labor	9,535	-	-	-	-	9,535	$2,697	-	-	-	-	$2,697
19	Program Management Office	Program Management Office	Business Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
20	Program Management Office	Program Management Office	Business Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
21	Program Management Office	Program Management Office	IT Lead	External Labor	882	-	-	-	-	882	$525	-	-	-	-	$525
22	Program Management Office	Program Management Office	Program Manager	External Labor	885	-	-	-	-	885	$219	-	-	-	-	$219
23	Program Management Office	Program Management Office	Principal	External Labor	122	-	-	-	-	122	$60	-	-	-	-	$60
24			**Expense Subtotal**	**External Labor**	**14,532**	**-**	**-**	**-**	**-**	**14,532**	**$4,228**	**-**	**-**	**-**	**-**	**$4,228**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Program Management Office External / SI Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
25	Program Management Office	Program Management Office	Business Analyst	External Labor	3,531	4,730	3,848	922	-	13,029	$837	$926	$708	$165	-	$2,636
26	Program Management Office	Program Management Office	PMO Analyst	External Labor	17,356	24,434	24,352	6,276	-	72,418	$5,212	$5,828	$5,940	$1,563	-	$18,542
27	Program Management Office	Program Management Office	Business Lead	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
28	Program Management Office	Program Management Office	Business Manager	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
29	Program Management Office	Program Management Office	IT Lead	External Labor	1,469	1,966	1,974	520	-	5,929	$874	$518	$533	$144	-	$2,069
30	Program Management Office	Program Management Office	Program Manager	External Labor	1,475	1,966	1,974	520	-	5,935	$366	$518	$533	$144	-	$1,561
31	Program Management Office	Program Management Office	Principal	External Labor	203	270	270	68	-	810	$100	$100	$102	$26	-	$328
32			**Grand Total**	**External Labor**	**24,034**	**33,366**	**32,417**	**8,305**	**-**	**98,121**	**$7,389**	**$7,890**	**$7,817**	**$2,041**	**-**	**$25,136**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-6
Pacific Gas and Electric Company
ERP and GIS Transformation
Business Enablement Cost Group Workpaper

WP#	Workpaper Name
	Summary WPs
3-6	Testimony Tables
3-6A	Business Enablement Workpaper Summary (ERP and GIS, All Labor Types)
3-6B	Business Enablement PG&E Labor Summary Workpaper
3-6C	Business Enablement External / Systems Integrator Labor Summary Workpaper
	Detail WPs - ERP
3-6D	ERP - Business Enablement PG&E Labor Workpaper
3-6E	ERP - Business Enablement External / Systems Integrator Labor Workpaper
	Detail WPs - ERP
3-6F	GIS - Business Enablement PG&E Labor Workpaper
3-6G	GIS - Business Enablement External / Systems Integrator Labor Workpaper

Workpaper 3-6
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Business Enablement - Testimony Tables

TABLE 3-27
BUSINESS ENABLEMENT COST GROUP - CAPITAL EXPENDITURES BY PLATFORM AND WORKSTREAM
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Workstream		Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	Organizational Readiness										
2		ERP	$ 0.3	$ 1.1	$ 6.6	$ 15.2	$ 28.9	$ 13.7	$ 25.5	$ 7.4	$ 98.7
3		GIS	-	0.2	1.5	4.0	10.6	11.3	3.3	-	30.8
4	**Subtotal**		**$ 0.3**	**$ 1.3**	**$ 8.1**	**$ 19.2**	**$ 39.5**	**$ 24.9**	**$ 28.8**	**$ 7.4**	**$ 129.5**
5	Operating Model										
6		ERP	$ 0.1	$ 0.3	$ 1.9	$ 4.5	$ 6.2	$ 6.7	$ 7.4	$ 1.8	$ 28.9
7		GIS	-	0.0	0.1	0.4	0.9	0.9	0.3	-	2.6
	Subtotal		**$ 0.1**	**$ 0.3**	**$ 2.1**	**$ 4.9**	**$ 7.1**	**$ 7.6**	**$ 7.6**	**$ 1.8**	**$ 31.6**
9	**Total**		**$ 0.3**	**$ 1.6**	**$ 10.2**	**$ 24.1**	**$ 46.6**	**$ 32.6**	**$ 36.4**	**$ 9.2**	**$ 161.1**

TABLE 3-28
ORGANIZATIONAL READINESS WORKSTREAM - CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E	$ 0.1	$ 0.7	$ 4.1	$ 10.2	$ 23.8	$ 9.8	$ 12.0	$ 3.1	$ 63.7
2	External	0.1	0.6	4.1	9.1	15.7	15.2	16.8	4.3	$ 65.8
3	**Total**	**$ 0.3**	**$ 1.3**	**$ 8.1**	**$ 19.2**	**$ 39.5**	**$ 24.9**	**$ 28.8**	**$ 7.4**	**$ 129.5**

TABLE 3-29
OPERATING MODEL WORKSTREAM - CAPITAL EXPENDITURES BY LABOR CATEGORY
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Labor Category	Recorded 2023	Recorded 2024	Recorded 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Total
1	PG&E Labor	$ 0.0	$ 0.1	$ 0.8	$ 1.2	$ 3.4	$ 2.8	$ 3.1	$ 0.8	$ 12.2
2	External Labor	0.0	0.2	1.2	3.6	3.7	4.8	4.5	1.1	19.3
3	**Total**	**$ 0.1**	**$ 0.3**	**$ 2.1**	**$ 4.9**	**$ 7.1**	**$ 7.6**	**$ 7.6**	**$ 1.8**	**$ 31.6**

Workpaper 3-6A
Pacific Gas and Electric Company
ERP and GIS Transformation
Business Enablement Workpaper Summary (ERP and GIS, All Labor Types)
Thousands of Dollars - Nominal

Business Enablement Cost Group Workpaper Summary — Combined

PROGRAM	ERP &GIS
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for combined PG&E and external/SI labor..
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
1	ERP	Business Enablement	Operating Model	12.8	10.7	11.0	11.5	2.9	48.9	$77	$318	$1,943	$3,010	$4,757	$5,058	$5,473	$1,409	$22,045	-	-	-	$2,007	-	-	-	-	$2,007	$77	$318	$1,943	$5,017	$4,757	$5,058	$5,473	$1,409	$24,052	
2	ERP	Business Enablement	Organizational Readiness	44.0	51.8	23.5	43.4	12.6	175.4	$262	$1,085	$6,629	$10,446	$22,334	$10,135	$19,306	$5,807	$76,004	-	-	-	$6,964	-	-	-	-	$6,964	$262	$1,085	$6,629	$17,410	$22,334	$10,135	$19,306	$5,807	$82,968	
3			**ERP Subtotal**	**56.9**	**62.5**	**34.4**	**54.9**	**15.5**	**224.3**	**$339**	**$1,403**	**$8,572**	**$13,456**	**$27,091**	**$15,194**	**$24,779**	**$7,215**	**$98,049**	-	-	-	**$8,971**	-	-	-	-	**$8,971**	**$339**	**$1,403**	**$8,572**	**$22,427**	**$27,091**	**$15,194**	**$24,779**	**$7,215**	**$107,020**	
4	GIS	Business Enablement	Operating Model	1.0	1.4	1.4	0.4	-	4.1	-	$17	$127	$258	$654	$666	$180	-	$1,903	-	-	-	$172	-	-	-	-	$172	-	$17	$127	$431	$654	$666	$180	-	$2,075	
5	GIS	Business Enablement	Organizational Readiness	11.9	19.8	20.8	5.3	-	57.8	-	$201	$1,492	$2,505	$8,057	$8,534	$2,351	-	$23,140	-	-	-	$2,317	-	-	-	-	$2,317	-	$201	$1,492	$4,822	$8,057	$8,534	$2,351	-	$25,457	
6			**GIS Subtotal**	**12.9**	**21.1**	**22.2**	**5.7**	**-**	**61.9**	**-**	**$219**	**$1,619**	**$2,763**	**$8,711**	**$9,200**	**$2,530**	**-**	**$25,042**	-	-	-	**$2,489**	-	-	-	-	**$2,489**	-	**$219**	**$1,619**	**$5,252**	**$8,711**	**$9,200**	**$2,530**	**-**	**$27,531**	
7			**Base Forecast Total**	**69.7**	**83.7**	**56.6**	**60.6**	**15.5**	**286.2**	**$339**	**$1,621**	**$10,191**	**$16,219**	**$35,802**	**$24,394**	**$27,310**	**$7,215**	**$123,091**	-	-	-	**$11,460**	-	-	-	-	**$11,460**	**$339**	**$1,621**	**$10,191**	**$27,679**	**$35,802**	**$24,394**	**$27,310**	**$7,215**	**$134,551**	

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
8	ERP	Business Enablement	Operating Model										$602	$951	$1,012	$1,095	$282	$3,942	-	-	-	$401	-	-	-	-	$401	-	-	-	$1,003	$951	$1,012	$1,095	$282	$4,343	
9	ERP	Business Enablement	Organizational Readiness										$2,089	$4,467	$2,027	$3,861	$1,161	$13,606	-	-	-	$1,393	-	-	-	-	$1,393	-	-	-	$3,482	$4,467	$2,027	$3,861	$1,161	$14,998	
10			**ERP Subtotal**										**$2,691**	**$5,418**	**$3,039**	**$4,956**	**$1,443**	**$17,547**	-	-	-	**$1,794**	-	-	-	-	**$1,794**	-	-	-	**$4,485**	**$5,418**	**$3,039**	**$4,956**	**$1,443**	**$19,341**	
11	GIS	Business Enablement	Operating Model										$52	$131	$133	$36	-	$352	-	-	-	$34	-	-	-	-	$34	-	-	-	$86	$131	$133	$36	-	$386	
12	GIS	Business Enablement	Organizational Readiness										$501	$1,611	$1,707	$470	-	$4,413	-	-	-	$98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13			**GIS Subtotal**										**$553**	**$1,742**	**$1,840**	**$506**	-	**$4,765**	-	-	-	**$134**	-	-	-	-	**$34**	-	-	-	**$86**	**$131**	**$133**	**$36**	-	**$386**	
14			**Contingencies Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$3,244**	**$7,160**	**$4,879**	**$5,462**	**$1,443**	**$22,312**	**-**	**-**	**-**	**$1,927**	**-**	**-**	**-**	**-**	**$1,829**	**-**	**-**	**-**	**$4,571**	**$5,549**	**$3,172**	**$4,992**	**$1,443**	**$19,727**	

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
15	ERP	Business Enablement	Operating Model										$212	$216	$286	$308	$79	$1,100	-	-	-	$141	-	-	-	-	$141	-	-	-	$353	$216	$286	$308	$79	$1,242	
16	ERP	Business Enablement	Organizational Readiness										$432	$722	$544	$1,033	$311	$3,042	-	-	-	$288	-	-	-	-	$288	-	-	-	$720	$722	$544	$1,033	$311	$3,330	
17			**ERP Subtotal**										**$644**	**$938**	**$830**	**$1,341**	**$390**	**$4,142**	-	-	-	**$429**	-	-	-	-	**$429**	-	-	-	**$1,073**	**$938**	**$830**	**$1,341**	**$390**	**$4,572**	
18	GIS	Business Enablement	Operating Model										$26	$65	$67	$18	-	$176	-	-	-	$17	-	-	-	-	$17	-	-	-	$43	$65	$67	$18	-	$193	
19	GIS	Business Enablement	Organizational Readiness										$147	$420	$444	$125	-	$1,137	-	-	-	$5	-	-	-	-	$5	-	-	-	$152	$420	$444	$125	-	$1,142	
20			**GIS Subtotal**										**$173**	**$486**	**$511**	**$143**	-	**$1,312**	-	-	-	**$22**	-	-	-	-	**$22**	-	-	-	**$195**	**$486**	**$511**	**$143**	-	**$1,336**	
21			**Meals and Travel Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$817**	**$1,423**	**$1,341**	**$1,484**	**$390**	**$5,455**	**-**	**-**	**-**	**$451**	**-**	**-**	**-**	**-**	**$451**	**-**	**-**	**-**	**$1,268**	**$1,423**	**$1,341**	**$1,484**	**$390**	**$5,906**	

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
22	ERP	Business Enablement	Operating Model										$90	$320	$359	$488	$44	$1,302	-	-	-	-	-	-	-	-	-	-	-	-	$90	$320	$359	$488	$44	$1,302	
23	ERP	Business Enablement	Organizational Readiness										$428	$1,362	$981	$1,333	$120	$4,225	-	-	-	-	-	-	-	-	-	-	-	-	$428	$1,362	$981	$1,333	$120	$4,225	
24			**ERP Subtotal**										**$519**	**$1,682**	**$1,341**	**$1,821**	**$165**	**$5,528**	-	-	-	-	-	-	-	-	-	-	-	-	**$519**	**$1,682**	**$1,341**	**$1,821**	**$165**	**$5,528**	
25	GIS	Business Enablement	Operating Model										$24	$47	$49	$27	-	$148	-	-	-	-	-	-	-	-	-	-	-	-	$24	$47	$49	$27	-	$148	
26	GIS	Business Enablement	Organizational Readiness										$253	$529	$572	$319	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27			**GIS Subtotal**										**$278**	**$577**	**$622**	**$347**	-	**$148**	-	-	-	-	-	-	-	-	-	-	-	-	**$24**	**$47**	**$49**	**$27**	-	**$148**	
28			**AFUDC Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$797**	**$2,299**	**$1,962**	**$2,168**	**$165**	**$5,676**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$543**	**$1,729**	**$1,390**	**$1,849**	**$165**	**$5,676**	

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
29	ERP	Business Enablement	Operating Model										$538	-	-	-	-	$538	-	-	-	($2,549)	-	-	-	-	($2,549)	-	-	-	($2,011)	-	-	-	-	($2,011)	
30	ERP	Business Enablement	Organizational Readiness										$1,837	-	-	-	-	$1,837	-	-	-	($8,645)	-	-	-	-	($8,645)	-	-	-	($6,808)	-	-	-	-	($6,808)	
31			**ERP Subtotal**										**$2,375**	-	-	-	-	**$2,375**	-	-	-	**($11,194)**	-	-	-	-	**($11,194)**	-	-	-	**($8,819)**	-	-	-	-	**($8,819)**	
32	GIS	Business Enablement	Operating Model										$49	-	-	-	-	$49	-	-	-	($224)	-	-	-	-	($224)	-	-	-	($175)	-	-	-	-	($175)	
33	GIS	Business Enablement	Organizational Readiness										$570	-	-	-	-	$570	-	-	-	($2,420)	-	-	-	-	($2,420)	-	-	-	($1,850)	-	-	-	-	($1,850)	
34			**GIS Subtotal**										**$618**	-	-	-	-	**$618**	-	-	-	**($2,644)**	-	-	-	-	**($2,644)**	-	-	-	**($2,026)**	-	-	-	-	**($2,026)**	
35			**Other Adjustments Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$2,994**	**-**	**-**	**-**	**-**	**$2,994**	**-**	**-**	**-**	**($13,838)**	**-**	**-**	**-**	**-**	**($13,838)**	**-**	**-**	**-**	**($10,844)**	**-**	**-**	**-**	**-**	**($10,844)**	

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total	Calculation Notes
36	ERP	Business Enablement	Operating Model	12.8	10.7	11.0	11.5	2.9	48.9	$77	$318	$1,943	$4,453	$6,245	$6,715	$7,364	$1,814	$28,928	-	-	-	-	-	-	-	-	-	$77	$318	$1,943	$4,453	$6,245	$6,715	$7,364	$1,814	$28,928	
37	ERP	Business Enablement	Organizational Readiness	44.0	51.8	23.5	43.4	12.6	175.4	$262	$1,085	$6,629	$15,233	$28,884	$13,688	$25,534	$7,399	$98,714	-	-	-	-	-	-	-	-	-	$262	$1,085	$6,629	$15,233	$28,884	$13,688	$25,534	$7,399	$98,714	
38			**ERP Subtotal**	**56.9**	**62.5**	**34.4**	**54.9**	**15.5**	**224.3**	**$339**	**$1,403**	**$8,572**	**$19,685**	**$35,129**	**$20,403**	**$32,897**	**$9,213**	**$127,641**	-	-	-	-	-	-	-	-	-	**$339**	**$1,403**	**$8,572**	**$19,685**	**$35,129**	**$20,403**	**$32,897**	**$9,213**	**$127,641**	
39	GIS	Business Enablement	Operating Model	1.0	1.4	1.4	0.4	0.0	4.1	-	$17	$127	$409	$897	$916	$261	-	$2,627	-	-	-	-	-	-	-	-	-	-	$17	$127	$409	$897	$916	$261	-	$2,627	
40	GIS	Business Enablement	Organizational Readiness	11.9	19.8	20.8	5.3	0.0	57.8	-	$201	$1,492	$3,976	$10,619	$11,257	$3,265	-	$30,810	-	-	-	-	-	-	-	-	-	-	$201	$1,492	$3,976	$10,619	$11,257	$3,265	-	$30,810	
41			**GIS Subtotal**	**12.9**	**21.1**	**22.2**	**5.7**	**-**	**61.9**	**-**	**$219**	**$1,619**	**$4,385**	**$11,516**	**$12,172**	**$3,526**	**-**	**$33,436**	-	-	-	-	-	-	-	-	-	-	**$219**	**$1,619**	**$4,385**	**$11,516**	**$12,172**	**$3,526**	**-**	**$33,436**	
42			**Business Enablement Grand Total**	**69.7**	**83.7**	**56.6**	**60.6**	**15.5**	**286.2**	**$339**	**$1,621**	**$10,191**	**$24,070**	**$46,645**	**$32,575**	**$36,423**	**$9,213**	**$161,078**	-	-	-	-	-	-	-	-	-	-	**$339**	**$1,621**	**$10,191**	**$24,070**	**$46,645**	**$32,575**	**$36,423**	**$9,213**	**$161,078**	**Sum of Tables 1-5**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-6B
Pacific Gas and Electric Company
ERP and GIS Transformation
Business Enablement PG&E Labor Summary Workpaper
Thousands of Dollars - Nominal

Business Enablement Cost Group Workpaper Summary — PG&E Labor

PROGRAM	ERP &GIS
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

				Annual Staffing (FTE)						Base Capital Cost Forecast									Base Expense Cost Forecast									Base Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Business Enablement	Operating Model	2.9	5.4	3.8	4.0	1.0	17.2	$32	$134	$821	$781	$2,693	$2,175	$2,366	$609	$9,613	-	-	-	$521	-	-	-	-	$521	$32	$134	$821	$1,302	$2,693	$2,175	$2,366	$609	$10,134
2	ERP	Business Enablement	Organizational Readiness	23.0	33.3	7.7	14.2	4.1	82.1	$140	$577	$3,525	$6,175	$15,836	$4,359	$8,361	$2,511	$41,484	-	-	-	$4,117	-	-	-	-	$4,117	$140	$577	$3,525	$10,291	$15,836	$4,359	$8,361	$2,511	$45,601
3			**ERP Subtotal**	**25.9**	**38.7**	**11.5**	**18.2**	**5.1**	**99.3**	**$172**	**$711**	**$4,346**	**$6,956**	**$18,530**	**$6,535**	**$10,727**	**$3,120**	**$51,097**	-	-	-	**$4,637**	-	-	-	-	**$4,637**	**$172**	**$711**	**$4,346**	**$11,593**	**$18,530**	**$6,535**	**$10,727**	**$3,120**	**$55,734**
4	GIS	Business Enablement	Operating Model	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	GIS	Business Enablement	Organizational Readiness	4.0	6.3	6.1	1.7	0.0	18.1	-	$73	$544	$974	$3,093	$3,137	$902	-	$8,724	-	-	-	$492	-	-	-	-	$492	-	$73	$544	$1,466	$3,093	$3,137	$902	-	$9,216
6			**GIS Subtotal**	**4.0**	**6.3**	**6.1**	**1.7**	**-**	**18.1**	**-**	**$73**	**$544**	**$974**	**$3,093**	**$3,137**	**$902**	**-**	**$8,724**	**-**	**-**	**-**	**$492**	**-**	**-**	**-**	**-**	**$492**	**-**	**$73**	**$544**	**$1,466**	**$3,093**	**$3,137**	**$902**	**-**	**$9,216**
7			**Base Forecast Total**	**29.9**	**45.0**	**17.6**	**19.9**	**5.1**	**117.4**	**$172**	**$785**	**$4,891**	**$7,930**	**$21,623**	**$9,672**	**$11,629**	**$3,120**	**$59,822**	**-**	**-**	**-**	**$5,129**	**-**	**-**	**-**	**-**	**$5,129**	**$172**	**$785**	**$4,891**	**$13,059**	**$21,623**	**$9,672**	**$11,629**	**$3,120**	**$64,951**

Table 2: Contingencies

				Annual Staffing — No Adjustments						Adjustments - Capital Contingencies									Adjustments - Expense Contingencies									Adjustments - Total Contingencies								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
8	ERP	Business Enablement	Operating Model										$156	$539	$435	$473	$122	$1,725	-	-	-	$104	-	-	-	-	$104	-	-	-	$260	$539	$435	$473	$122	$1,829
9	ERP	Business Enablement	Organizational Readiness										$1,235	$3,167	$872	$1,672	$502	$7,448	-	-	-	$823	-	-	-	-	$823	-	-	-	$2,058	$3,167	$872	$1,672	$502	$8,272
10			**ERP Subtotal**										**$1,391**	**$3,706**	**$1,307**	**$2,145**	**$624**	**$9,174**	-	-	-	**$927**	-	-	-	-	**$927**	-	-	-	**$2,319**	**$3,706**	**$1,307**	**$2,145**	**$624**	**$10,101**
11	GIS	Business Enablement	Operating Model										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	GIS	Business Enablement	Organizational Readiness										$195	$619	$627	$180	-	$1,745	-	-	-	$98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13			**GIS Subtotal**										**$195**	**$619**	**$627**	**$180**	-	**$1,745**	-	-	-	**$98**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14			**Contingencies Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,586**	**$4,325**	**$1,934**	**$2,326**	**$624**	**$10,918**	**-**	**-**	**-**	**$1,026**	**-**	**-**	**-**	**-**	**$927**	**-**	**-**	**-**	**$2,319**	**$3,706**	**$1,307**	**$2,145**	**$624**	**$10,101**

Table 3: Meals and Travel

				Annual Staffing — No Adjustments						Adjustments - Meals and Travel Capital									Adjustments - Meals and Travel Expenses									Adjustments - Total Meals and Travel Expenses								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
15	ERP	Business Enablement	Operating Model										$8	$27	$22	$24	$6	$86	-	-	-	$5	-	-	-	-	$5	-	-	-	$13	$27	$22	$24	$6	$91
16	ERP	Business Enablement	Organizational Readiness										$62	$158	$44	$84	$25	$372	-	-	-	$41	-	-	-	-	$41	-	-	-	$103	$158	$44	$84	$25	$414
17			**ERP Subtotal**										**$70**	**$185**	**$65**	**$107**	**$31**	**$459**	-	-	-	**$46**	-	-	-	-	**$46**	-	-	-	**$116**	**$185**	**$65**	**$107**	**$31**	**$505**
18	GIS	Business Enablement	Operating Model										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	GIS	Business Enablement	Organizational Readiness										$10	$31	$31	$9	-	$81	-	-	-	$5	-	-	-	-	$5	-	-	-	$15	$31	$31	$9	-	$86
20			**GIS Subtotal**										**$10**	**$31**	**$31**	**$9**	-	**$81**	-	-	-	**$5**	-	-	-	-	**$5**	-	-	-	**$15**	**$31**	**$31**	**$9**	-	**$86**
21			**Meals and Travel Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$79**	**$216**	**$97**	**$116**	**$31**	**$540**	**-**	**-**	**-**	**$51**	**-**	**-**	**-**	**-**	**$51**	**-**	**-**	**-**	**$131**	**$216**	**$97**	**$116**	**$31**	**$591**

Table 4: Allowance for Funds Using During Construction (AFUDC)

				Annual Staffing — No Adjustments						Capital AFUDC									Expense AFUDC									Total AFUDC								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
22	ERP	Business Enablement	Operating Model										$40	$141	$158	$215	$19	$572	-	-	-	-	-	-	-	-	-	-	-	-	$40	$141	$158	$215	$19	$572
23	ERP	Business Enablement	Organizational Readiness										$224	$714	$514	$698	$63	$2,214	-	-	-	-	-	-	-	-	-	-	-	-	$224	$714	$514	$698	$63	$2,214
24			**ERP Subtotal**										**$264**	**$854**	**$672**	**$913**	**$82**	**$2,786**	-	-	-	-	-	-	-	-	-	-	-	-	**$264**	**$854**	**$672**	**$913**	**$82**	**$2,786**
25	GIS	Business Enablement	Operating Model										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	GIS	Business Enablement	Organizational Readiness										$93	$195	$207	$116	-	$611	-	-	-	-	-	-	-	-	-	-	-	-	$93	$195	$207	$116	-	$611
27			**GIS Subtotal**										**$93**	**$195**	**$207**	**$116**	-	**$611**	-	-	-	-	-	-	-	-	-	-	-	-	**$93**	**$195**	**$207**	**$116**	-	**$611**
28			**AFUDC Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$357**	**$1,049**	**$879**	**$1,029**	**$82**	**$3,397**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$357**	**$1,049**	**$879**	**$1,029**	**$82**	**$3,397**

Table 5: Other Adjustment (See Note 1 below)

				Annual Staffing — No Adjustments						Other Capital Adjustments [1]									Other Expense Adjustments [1]									Other Total Adjustments [1]								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
29	ERP	Business Enablement	Operating Model										$227	-	-	-	-	$227	-	-	-	($630)	-	-	-	-	($630)	-	-	-	($403)	-	-	-	-	($403)
30	ERP	Business Enablement	Organizational Readiness										$977	-	-	-	-	$977	-	-	-	($4,981)	-	-	-	-	($4,981)	-	-	-	($4,004)	-	-	-	-	($4,004)
31			**ERP Subtotal**										**$1,204**	**-**	**-**	**-**	**-**	**$1,204**	-	-	-	**($5,611)**	**-**	**-**	**-**	**-**	**($5,611)**	**-**	**-**	**-**	**($4,407)**	**-**	**-**	**-**	**-**	**($4,407)**
32	GIS	Business Enablement	Operating Model										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	GIS	Business Enablement	Organizational Readiness										$208	-	-	-	-	$208	-	-	-	($595)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34			**GIS Subtotal**										**$208**	**-**	**-**	**-**	**-**	**$208**	-	-	-	**($595)**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	-
35			**Other Adjustments Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,412**	**-**	**-**	**-**	**-**	**$1,412**	**-**	**-**	**-**	**($6,206)**	**-**	**-**	**-**	**-**	**($5,611)**	**-**	**-**	**-**	**($4,407)**	**-**	**-**	**-**	**-**	**($4,407)**

Table 6: Total Forecast

				Annual Staffing (FTE)						Total Capital Forecast									Total Expense Forecast									Total Cost Forecast								
Line No.	Program	Cost Group	Workstream	2026	2027	2028	2029	2030	Total	2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	2023	2024	2025	2026	2027	2028	2029	2030	Total
36	ERP	Business Enablement	Operating Model	2.9	5.4	3.8	4.0	1.0	17.2	$32	$134	$821	$1,212	$3,400	$2,790	$3,077	$757	$12,224	-	-	-	-	-	-	-	-	-	$32	$134	$821	$1,212	$3,400	$2,790	$3,077	$757	$12,224
37	ERP	Business Enablement	Organizational Readiness	23.0	33.3	7.7	14.2	4.1	82.1	$140	$577	$3,525	$8,673	$19,875	$5,789	$10,815	$3,102	$52,496	-	-	-	-	-	-	-	-	-	$140	$577	$3,525	$8,673	$19,875	$5,789	$10,815	$3,102	$52,496
38			**ERP Subtotal**	**25.9**	**38.7**	**11.5**	**18.2**	**5.1**	**99.3**	**$172**	**$711**	**$4,346**	**$9,885**	**$23,275**	**$8,579**	**$13,893**	**$3,858**	**$64,720**	-	-	-	-	-	-	-	-	-	**$172**	**$711**	**$4,346**	**$9,885**	**$23,275**	**$8,579**	**$13,893**	**$3,858**	**$64,720**
39	GIS	Business Enablement	Operating Model	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	GIS	Business Enablement	Organizational Readiness	4.0	6.3	6.1	1.7	0.0	18.1	-	$73	$544	$1,479	$3,938	$4,003	$1,208	-	$11,246	-	-	-	-	-	-	-	-	-	-	$73	$544	$1,479	$3,938	$4,003	$1,208	-	$11,246
41			**GIS Subtotal**	**4.0**	**6.3**	**6.1**	**1.7**	**0.0**	**18.1**	**-**	**73,499**	**544,487**	**$1,479**	**$3,938**	**$4,003**	**$1,208**	**-**	**$11,246**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$73**	**$544**	**$1,479**	**$3,938**	**$4,003**	**$1,208**	**-**	**$11,246**
42			**Business Enablement Grand Total**	**29.9**	**45.0**	**17.6**	**19.9**	**5.1**	**117.4**	**$172**	**$785**	**$4,891**	**$11,365**	**$27,213**	**$12,582**	**$15,101**	**$3,858**	**$75,966**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$172**	**$785**	**$4,891**	**$11,365**	**$27,213**	**$12,582**	**$15,101**	**$3,858**	**$75,966**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Business Enablement Cost Group Workpaper Summary — External / Systems Integrator (SI) Labor

PROGRAM	ERP &GIS
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Summary workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	Table 1 presents the base forecast; Tables 2 through 5 present forecast adjustments, including contingency, AFUDC, and other adjustments; and Table 6 presents the resulting total forecast.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

Table 1: Base Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Base Capital Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Base Expense Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Base Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Business Enablement	Operating Model	9.9	5.3	7.1	7.5	1.9	31.7	$44	$184	$1,122	$2,229	$2,064	$2,883	$3,107	$799	$12,432	-	-	-	$1,486	-	-	-	-	$1,486	$44	$184	$1,122	$3,715	$2,064	$2,883	$3,107	$799	$13,918
2	ERP	Business Enablement	Organizational Readiness	21.1	18.6	15.8	29.3	8.5	93.3	$123	$508	$3,104	$4,271	$6,497	$5,776	$10,945	$3,296	$34,520	-	-	-	$2,847	-	-	-	-	$2,847	$123	$508	$3,104	$7,118	$6,497	$5,776	$10,945	$3,296	$37,367
3			**ERP Subtotal**	**31.0**	**23.9**	**23.0**	**36.8**	**10.4**	**125.0**	**$167**	**$691**	**$4,226**	**$6,500**	**$8,561**	**$8,659**	**$14,052**	**$4,095**	**$46,952**	-	-	-	**$4,333**	-	-	-	-	**$4,333**	**$167**	**$691**	**$4,226**	**$10,833**	**$8,561**	**$8,659**	**$14,052**	**$4,095**	**$51,285**
4	GIS	Business Enablement	Operating Model	1.0	1.4	1.4	0.4	-	4.1	-	$17	$127	$258	$654	$666	$180	-	$1,903	-	-	-	$172	-	-	-	-	$172	-	$17	$127	$431	$654	$666	$180	-	$2,075
5	GIS	Business Enablement	Organizational Readiness	7.8	13.5	14.7	3.7	-	39.6	-	$128	$947	$1,531	$4,964	$5,397	$1,448	-	$14,415	-	-	-	$1,825	-	-	-	-	$1,825	-	$128	$947	$3,356	$4,964	$5,397	$1,448	-	$16,240
6			**GIS Subtotal**	**8.8**	**14.9**	**16.1**	**4.0**	**-**	**43.8**	**-**	**$145**	**$1,074**	**$1,789**	**$5,618**	**$6,063**	**$1,628**	**-**	**$16,318**	-	-	-	**$1,997**	-	-	-	-	**$1,997**	**-**	**$145**	**$1,074**	**$3,787**	**$5,618**	**$6,063**	**$1,628**	**-**	**$18,315**
7			**Base Forecast Total**	**39.8**	**38.7**	**39.0**	**40.8**	**10.4**	**168.7**	**$167**	**$836**	**$5,300**	**$8,289**	**$14,180**	**$14,722**	**$15,680**	**$4,095**	**$63,270**	-	-	-	**$6,331**	-	-	-	-	**$6,331**	**$167**	**$836**	**$5,300**	**$14,620**	**$14,180**	**$14,722**	**$15,680**	**$4,095**	**$69,600**

Table 2: Contingencies

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Capital Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Expense Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Contingencies 2023	2024	2025	2026	2027	2028	2029	2030	Total
8	ERP	Business Enablement	Operating Model										$446	$413	$577	$621	$160	$2,216	-	-	-	$297	-	-	-	-	$297	-	-	-	$743	$413	$577	$621	$160	$2,514
9	ERP	Business Enablement	Organizational Readiness										$854	$1,299	$1,155	$2,189	$659	$6,157	-	-	-	$569	-	-	-	-	$569	-	-	-	$1,424	$1,299	$1,155	$2,189	$659	$6,727
10			**ERP Subtotal**										**$1,300**	**$1,712**	**$1,732**	**$2,810**	**$819**	**$8,374**	-	-	-	**$867**	-	-	-	-	**$867**	-	-	-	**$2,167**	**$1,712**	**$1,732**	**$2,810**	**$819**	**$9,240**
11	GIS	Business Enablement	Operating Model										$52	$131	$133	$36	-	$352	-	-	-	$34	-	-	-	-	$34	-	-	-	$86	$131	$133	$36	-	$386
12	GIS	Business Enablement	Organizational Readiness										$306	$993	$1,079	$290	-	$2,668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13			**GIS Subtotal**										**$358**	**$1,124**	**$1,213**	**$326**	-	**$3,020**	-	-	-	**$34**	-	-	-	-	**$34**	-	-	-	**$86**	**$131**	**$133**	**$36**	-	**$386**
14			**Contingencies Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,658**	**$2,836**	**$2,944**	**$3,136**	**$819**	**$11,393**	-	-	-	**$901**	-	-	-	-	**$901**	**-**	**-**	**-**	**$2,253**	**$1,843**	**$1,865**	**$2,846**	**$819**	**$9,626**

Table 3: Meals and Travel

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Adjustments - Meals and Travel Capital 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Adjustments - Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Adjustments - Total Meals and Travel Expenses 2023	2024	2025	2026	2027	2028	2029	2030	Total
15	ERP	Business Enablement	Operating Model										$204	$189	$264	$284	$73	$1,014	-	-	-	$136	-	-	-	-	$136	-	-	-	$340	$189	$264	$284	$73	$1,150
16	ERP	Business Enablement	Organizational Readiness										$370	$563	$501	$949	$286	$2,669	-	-	-	$247	-	-	-	-	$247	-	-	-	$617	$563	$501	$949	$286	$2,916
17			**ERP Subtotal**										**$574**	**$752**	**$765**	**$1,233**	**$359**	**$3,684**	-	-	-	**$383**	-	-	-	-	**$383**	-	-	-	**$957**	**$752**	**$765**	**$1,233**	**$359**	**$4,067**
18	GIS	Business Enablement	Operating Model										$26	$65	$67	$18	-	$176	-	-	-	$17	-	-	-	-	$17	-	-	-	$43	$65	$67	$18	-	$193
19	GIS	Business Enablement	Organizational Readiness										$137	$389	$413	$116	-	$1,056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20			**GIS Subtotal**										**$163**	**$455**	**$479**	**$134**	-	**$1,231**	-	-	-	**$17**	-	-	-	-	**$17**	-	-	-	**$43**	**$65**	**$67**	**$18**	-	**$193**
21			**Meals and Travel Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$738**	**$1,207**	**$1,244**	**$1,367**	**$359**	**$4,915**	-	-	-	**$400**	-	-	-	-	**$400**	**-**	**-**	**-**	**$1,000**	**$818**	**$831**	**$1,251**	**$359**	**$4,260**

Table 4: Allowance for Funds Using During Construction (AFUDC)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Capital AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Expense AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total AFUDC 2023	2024	2025	2026	2027	2028	2029	2030	Total
22	ERP	Business Enablement	Operating Model										$51	$179	$201	$274	$25	$730	-	-	-	-	-	-	-	-	-	-	-	-	$51	$179	$201	$274	$25	$730
23	ERP	Business Enablement	Organizational Readiness										$204	$648	$467	$635	$57	$2,012	-	-	-	-	-	-	-	-	-	-	-	-	$204	$648	$467	$635	$57	$2,012
24			**ERP Subtotal**										**$255**	**$828**	**$669**	**$908**	**$82**	**$2,741**	-	-	-	-	-	-	-	-	-	-	-	-	**$255**	**$828**	**$669**	**$908**	**$82**	**$2,741**
25	GIS	Business Enablement	Operating Model										$24	$47	$49	$27		$148	-	-	-	-	-	-	-	-	-	-	-	-	$24	$47	$49	$27	-	$148
26	GIS	Business Enablement	Organizational Readiness										$160	$334	$365	$203	-	$1,063	-	-	-	-	-	-	-	-	-	-	-	-	$160	$334	$365	$203	-	$1,063
27			**GIS Subtotal**										**$185**	**$382**	**$414**	**$231**	-	**$1,211**	-	-	-	-	-	-	-	-	-	-	-	-	**$185**	**$382**	**$414**	**$231**	-	**$1,211**
28			**AFUDC Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$439**	**$1,209**	**$1,083**	**$1,139**	**$82**	**$3,953**	-	-	-	-	-	-	-	-	-	-	-	-	**$439**	**$1,209**	**$1,083**	**$1,139**	**$82**	**$3,953**

Table 5: Other Adjustment (See Note 1 below)

Line No.	Program	Cost Group	Workstream	Annual Staffing — No Adjustments 2026	2027	2028	2029	2030	Total	Other Capital Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Other Expense Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Other Total Adjustments [1] 2023	2024	2025	2026	2027	2028	2029	2030	Total
29	ERP	Business Enablement	Operating Model										$311	-	-	-	-	$311	-	-	-	($1,919)	-	-	-	-	($1,919)	-	-	-	($1,608)	-	-	-	-	($1,608)
30	ERP	Business Enablement	Organizational Readiness										$860	-	-	-	-	$860	-	-	-	($3,664)	-	-	-	-	($3,664)	-	-	-	($2,804)	-	-	-	-	($2,804)
31			**ERP Subtotal**										**$1,171**	-	-	-	-	**$1,171**	-	-	-	**($5,583)**	-	-	-	-	**($5,583)**	-	-	-	**($4,412)**	-	-	-	-	**($4,412)**
32	GIS	Business Enablement	Operating Model										$49	-	-	-	-		-	-	-	($224)	-	-	-	-		-	-	-	-	-	-	-	-	-
33	GIS	Business Enablement	Organizational Readiness										$362	-	-	-	-	$362	-	-	-	($1,825)	-	-	-	-	($1,825)	-	-	-	($1,463)	-	-	-	-	($1,463)
34			**GIS Subtotal**										**$410**	-	-	-	-	**$362**	-	-	-	**($2,049)**	-	-	-	-	**($1,825)**	-	-	-	**($1,463)**	-	-	-	-	**($1,463)**
35			**Other Adjustments Total**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$1,581**	**-**	**-**	**-**	**-**	**$1,533**	**-**	**-**	**-**	**($7,632)**	**-**	**-**	**-**	**-**	**($7,406)**	**-**	**-**	**-**	**($5,875)**	**-**	**-**	**-**	**-**	**($5,875)**

Table 6: Total Forecast

Line No.	Program	Cost Group	Workstream	Annual Staffing (FTE) 2026	2027	2028	2029	2030	Total	Total Capital Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Capital Total	Total Expense Forecast 2023	2024	2025	2026	2027	2028	2029	2030	O&M Total	Total Cost Forecast 2023	2024	2025	2026	2027	2028	2029	2030	Total
36	ERP	Business Enablement	Operating Model	9.9	5.3	7.1	7.5	1.9	31.7	$44	$184	$1,122	$3,240	$2,845	$3,925	$4,286	$1,057	$16,703	-	-	-	-	-	-	-	-	-	$44	$184	$1,122	$3,240	$2,845	$3,925	$4,286	$1,057	$16,703
37	ERP	Business Enablement	Organizational Readiness	21.1	18.6	15.8	29.3	8.5	93.3	$123	$508	$3,104	$6,560	$9,009	$7,899	$14,718	$4,298	$46,218	-	-	-	-	-	-	-	-	-	$123	$508	$3,104	$6,560	$9,009	$7,899	$14,718	$4,298	$46,218
38			**ERP Subtotal**	**31.0**	**23.9**	**23.0**	**36.8**	**10.4**	**125.0**	**$167**	**$691**	**$4,226**	**$9,800**	**$11,854**	**$11,824**	**$19,005**	**$5,355**	**$62,921**	-	-	-	-	-	-	-	-	-	**$167**	**$691**	**$4,226**	**$9,800**	**$11,854**	**$11,824**	**$19,005**	**$5,355**	**$62,921**
39	GIS	Business Enablement	Operating Model	1.0	1.4	1.4	0.4	0.0	4.1	-	$17	$127	$409	$897	$916	$261	-	$2,627	-	-	-	-	-	-	-	-	-	-	$17	$127	$409	$897	$916	$261	-	$2,627
40	GIS	Business Enablement	Organizational Readiness	7.8	13.5	14.7	3.7	0.0	39.6	-	$128	$947	$2,496	$6,681	$7,254	$2,058	-	$19,563	-	-	-	-	-	-	-	-	-	-	$128	$947	$2,496	$6,681	$7,254	$2,058	-	$19,563
41			**GIS Subtotal**	**8.8**	**14.9**	**16.1**	**4.0**	**0.0**	**43.8**	**-**	**145,026**	**1,074,363**	**$2,905**	**$7,578**	**$8,169**	**$2,318**	**-**	**$22,190**	-	-	-	-	-	-	-	-	-	**-**	**$145**	**$1,074**	**$2,905**	**$7,578**	**$8,169**	**$2,318**	**-**	**$22,190**
42			**Business Enablement Grand Total**	**39.8**	**38.7**	**39.0**	**40.8**	**10.4**	**168.7**	**$167**	**$836**	**$5,300**	**$12,705**	**$19,432**	**$19,993**	**$21,323**	**$5,355**	**$85,112**	-	-	-	-	-	-	-	-	-	**$167**	**$836**	**$5,300**	**$12,705**	**$19,432**	**$19,993**	**$21,323**	**$5,355**	**$85,112**

FOOTNOTES & ADDITIONAL EXPLANATIONS

NOTE 1 — OTHER ADJUSTMENTS	Other Adjustments reflect additional cost items that are not directly translated into an FTE count and are not classified as contingency, meals and travel, or AFUDC. Other Adjustments also remove expense costs incurred in 2026 that are not requested for recovery in this Application.
ADDITIONAL WORKPAPER NOTES	A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-6D
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Business Enablement PG&E Labor Workpaper
Thousands of Dollars - Nominal

ERP — Business Enablement PG&E Labor Workpaper

PROGRAM	ERP
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
ERP - Business Enablement PG&E Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Business Enablement	Operating Model	Business Analyst	PG&E Labor	$249	$276	$316	$328	$339	$296	1.0	1.9	1.3	1.4	0.4	6.0
2	Business Enablement	Operating Model	Business Lead	PG&E Labor	$249	$276	$316	$328	$339	$296	1.0	1.8	1.3	1.4	0.3	5.8
3	Business Enablement	Operating Model	Business Manager	PG&E Labor	$249	$276	$316	$328	$339	$296	0.9	1.7	1.2	1.2	0.3	5.3
4		**Operating Model Subtotal**									**2.9**	**5.4**	**3.8**	**4.0**	**1.0**	**17.2**
5	Business Enablement	Organizational Readiness	Admin Support	PG&E Labor	$249	$265	$316	$328	$339	$280	2.0	3.0	0.7	1.3	0.4	7.3
6	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	$249	$265	$316	$328	$339	$280	9.3	13.5	3.1	5.7	1.7	33.3
7	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	$249	$265	$316	$328	$339	$280	11.0	16.0	3.7	6.8	2.0	39.5
8	Business Enablement	Organizational Readiness	Business Manager	PG&E Labor	$249	$265	$316	$328	$339	$280	0.6	0.8	0.2	0.4	0.1	2.0
9		**Organizational Readiness Subtotal**									**23.0**	**33.3**	**7.7**	**14.2**	**4.1**	**82.1**
10			**FTE Subtotal**	**PG&E Labor**							**25.9**	**38.7**	**11.5**	**18.2**	**5.1**	**99.3**

					(C)						(D) = (A) * (C)					
ERP - Business Enablement PG&E Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
11	Business Enablement	Operating Model	Business Analyst	PG&E Labor	1,102	3,430	2,418	2,538	632	10,120	$275	$947	$765	$832	$214	$3,032
12	Business Enablement	Operating Model	Business Lead	PG&E Labor	1,067	3,320	2,340	2,456	612	9,794	$266	$916	$740	$805	$207	$2,934
13	Business Enablement	Operating Model	Business Manager	PG&E Labor	967	3,009	2,121	2,226	554	8,877	$241	$830	$671	$730	$188	$2,659
14		**Operating Model Subtotal**			**3,136**	**9,759**	**6,878**	**7,220**	**1,798**	**28,791**	**$781**	**$2,693**	**$2,175**	**$2,366**	**$609**	**$8,625**
15	Business Enablement	Organizational Readiness	Admin Support	PG&E Labor	2,206	5,328	1,227	2,269	660	11,689	$550	$1,409	$388	$744	$223	$3,315
16	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	10,056	24,282	5,590	10,341	3,006	53,275	$2,505	$6,424	$1,768	$3,391	$1,019	$15,106
17	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	11,915	28,773	6,624	12,254	3,562	63,129	$2,968	$7,612	$2,095	$4,019	$1,207	$17,901
18	Business Enablement	Organizational Readiness	Business Manager	PG&E Labor	613	1,480	341	630	183	3,247	$153	$392	$108	$207	$62	$921
19		**Organizational Readiness Subtotal**			**24,790**	**59,863**	**13,782**	**25,494**	**7,411**	**131,341**	**$6,175**	**$15,836**	**$4,359**	**$8,361**	**$2,511**	**$37,242**
20			**Capital Subtotal**	**PG&E Labor**	**27,926**	**69,622**	**20,661**	**32,714**	**9,209**	**160,132**	**$6,956**	**$18,530**	**$6,535**	**$10,727**	**$3,120**	**$45,868**

					(E)						(F) = (A) * (E)					
ERP - Business Enablement PG&E Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
21	Business Enablement	Operating Model	Business Analyst	PG&E Labor	735	-	-	-	-	735	$183	-	-	-	-	$183
22	Business Enablement	Operating Model	Business Lead	PG&E Labor	711	-	-	-	-	711	$177	-	-	-	-	$177
23	Business Enablement	Operating Model	Business Manager	PG&E Labor	645	-	-	-	-	645	$161	-	-	-	-	$161
24		**Operating Model Subtotal**			**2,091**	**-**	**-**	**-**	**-**	**2,091**	**$521**	**-**	**-**	**-**	**-**	**$521**
25	Business Enablement	Organizational Readiness	Admin Support	PG&E Labor	1,471	-	-	-	-	1,471	$366	-	-	-	-	$366
26	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	6,704	-	-	-	-	6,704	$1,670	-	-	-	-	$1,670
27	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	7,944	-	-	-	-	7,944	$1,979	-	-	-	-	$1,979
28	Business Enablement	Organizational Readiness	Business Manager	PG&E Labor	409	-	-	-	-	409	$102	-	-	-	-	$102
29		**Organizational Readiness Subtotal**			**16,527**	**-**	**-**	**-**	**-**	**16,527**	**$4,117**	**-**	**-**	**-**	**-**	**$4,117**
30			**Expense Subtotal**	**PG&E Labor**	**18,618**	**-**	**-**	**-**	**-**	**18,618**	**$4,637**	**-**	**-**	**-**	**-**	**$4,637**

					(G) = (C) + (E)						(H) = (D) + (F)					
ERP - Business Enablement PG&E Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
31	Business Enablement	Operating Model	Business Analyst	PG&E Labor	1,837	3,430	2,418	2,538	632	10,855	$458	$947	$765	$832	$214	$3,215
32	Business Enablement	Operating Model	Business Lead	PG&E Labor	1,778	3,320	2,340	2,456	612	10,505	$443	$916	$740	$805	$207	$3,111
33	Business Enablement	Operating Model	Business Manager	PG&E Labor	1,612	3,009	2,121	2,226	554	9,522	$401	$830	$671	$730	$188	$2,820
34		**Operating Model Subtotal**			**5,227**	**9,759**	**6,878**	**7,220**	**1,798**	**30,882**	**$1,302**	**$2,693**	**$2,175**	**$2,366**	**$609**	**$9,146**
35	Business Enablement	Organizational Readiness	Admin Support	PG&E Labor	3,677	5,328	1,227	2,269	660	13,160	$916	$1,409	$388	$744	$223	$3,681
36	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	16,759	24,282	5,590	10,341	3,006	59,979	$4,174	$6,424	$1,768	$3,391	$1,019	$16,776
37	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	19,859	28,773	6,624	12,254	3,562	71,072	$4,947	$7,612	$2,095	$4,019	$1,207	$19,879
38	Business Enablement	Organizational Readiness	Business Manager	PG&E Labor	1,022	1,480	341	630	183	3,656	$254	$392	$108	$207	$62	$1,023
39		**Organizational Readiness Subtotal**			**41,317**	**59,863**	**13,782**	**25,494**	**7,411**	**147,867**	**$10,291**	**$15,836**	**$4,359**	**$8,361**	**$2,511**	**$41,359**
40			**Grand Total**	**PG&E Labor**	**46,544**	**69,622**	**20,661**	**32,714**	**9,209**	**178,750**	**$11,593**	**$18,530**	**$6,535**	**$10,727**	**$3,120**	**$50,505**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-6E
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP - Business Enablement External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

ERP — Business Enablement External / Systems Integrator (SI) Labor Workpaper

PROGRAM	ERP
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

ERP - Business Enablement External / SI Labor					(A) Staffing Rate $/HR						(B) Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Business Enablement	Operating Model	Business Analyst	External Labor	$208	$217	$225	$231	$238	$220	7.1	3.8	5.1	5.4	1.3	22.7
2	Business Enablement	Operating Model	Business Lead	External Labor	$208	$217	$225	$231	$238	$220	2.2	1.2	1.6	1.7	0.4	7.1
3	Business Enablement	Operating Model	Business Manager	External Labor	$208	$217	$225	$231	$238	$220	0.6	0.3	0.4	0.5	0.1	1.9
4	Business Enablement	Operating Model	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
5		**Operating Model Subtotal**									**9.9**	**5.3**	**7.1**	**7.5**	**1.9**	**31.7**
6	Business Enablement	Organizational Readiness	Business Analyst	External Labor	$188	$194	$203	$208	$215	$200	15.7	13.8	11.8	21.8	6.3	69.4
7	Business Enablement	Organizational Readiness	Business Lead	External Labor	$188	$194	$203	$208	$215	$0	2.6	2.3	2.0	3.7	1.1	11.6
8	Business Enablement	Organizational Readiness	Business Manager	External Labor	$188	$194	$203	$208	$215	$200	1.7	1.5	1.3	2.4	0.7	7.5
9	Business Enablement	Organizational Readiness	Consultant (Other SI)	External Labor							-	-	-	-	-	-
10	Business Enablement	Organizational Readiness	IT Analyst	External Labor	$188	$194	$203	$208	$215	$200	0.5	0.5	0.4	0.7	0.2	2.4
11	Business Enablement	Organizational Readiness	Principal	External Labor	$188	$194	$203	$208	$215	$200	0.5	0.5	0.4	0.7	0.2	2.4
12		**Organizational Readiness Subtotal**									**21.1**	**18.6**	**15.8**	**29.3**	**8.5**	**93.3**
13			**FTE Subtotal**	**External Labor**							**31.0**	**23.9**	**23.0**	**36.8**	**10.4**	**125.0**

ERP - Business Enablement External / SI Labor					(C) Capital Hours						(D) = (A) * (C) Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
14	Business Enablement	Operating Model	Business Analyst	External Labor	7,680	6,802	9,189	9,643	2,400	35,714	$1,595	$1,477	$2,063	$2,224	$572	$7,932
15	Business Enablement	Operating Model	Business Lead	External Labor	2,405	2,130	2,877	3,020	752	11,184	$500	$463	$646	$696	$179	$2,484
16	Business Enablement	Operating Model	Business Manager	External Labor	645	572	772	810	202	3,002	$134	$124	$173	$187	$48	$667
17	Business Enablement	Operating Model	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
18		**Operating Model Subtotal**			**10,730**	**9,503**	**12,839**	**13,474**	**3,353**	**49,899**	**$2,229**	**$2,064**	**$2,883**	**$3,107**	**$799**	**$11,082**
19	Business Enablement	Organizational Readiness	Business Analyst	External Labor	16,942	24,888	21,197	39,207	11,390	113,624	$3,178	$4,835	$4,298	$8,144	$2,452	$22,907
20	Business Enablement	Organizational Readiness	Business Lead	External Labor	2,840	4,172	3,554	6,573	1,910	19,049	$533	$811	$721	$1,365	$411	$3,840
21	Business Enablement	Organizational Readiness	Business Manager	External Labor	1,838	2,701	2,300	4,255	1,236	12,330	$345	$525	$466	$884	$266	$2,486
22	Business Enablement	Organizational Readiness	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
23	Business Enablement	Organizational Readiness	IT Analyst	External Labor	574	843	718	1,328	386	3,849	$108	$164	$146	$276	$83	$776
24	Business Enablement	Organizational Readiness	Principal	External Labor	574	843	718	1,328	386	3,849	$108	$164	$146	$276	$83	$776
25		**Organizational Readiness Subtotal**			**22,768**	**33,447**	**28,487**	**52,691**	**15,307**	**152,701**	**$4,271**	**$6,497**	**$5,776**	**$10,945**	**$3,296**	**$30,785**
26			**Capital Subtotal**	**External Labor**	**33,498**	**42,950**	**41,326**	**66,165**	**18,661**	**202,599**	**$6,500**	**$8,561**	**$8,659**	**$14,052**	**$4,095**	**$41,868**

ERP - Business Enablement External / SI Labor					(E) Expense Hours						(F) = (A) * (E) Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
27	Business Enablement	Operating Model	Business Analyst	External Labor	5,120	-	-	-	-	5,120	$1,064	-	-	-	-	$1,064
28	Business Enablement	Operating Model	Business Lead	External Labor	1,603	-	-	-	-	1,603	$333	-	-	-	-	$333
29	Business Enablement	Operating Model	Business Manager	External Labor	430	-	-	-	-	430	$89	-	-	-	-	$89
30	Business Enablement	Operating Model	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
31		**Operating Model Subtotal**			**7,153**	-	-	-	-	**7,153**	**$1,486**	-	-	-	-	**$1,486**
32	Business Enablement	Organizational Readiness	Business Analyst	External Labor	11,294	-	-	-	-	11,294	$2,119	-	-	-	-	$2,119
33	Business Enablement	Organizational Readiness	Business Lead	External Labor	1,893	-	-	-	-	1,893	$355	-	-	-	-	$355
34	Business Enablement	Organizational Readiness	Business Manager	External Labor	1,226	-	-	-	-	1,226	$230	-	-	-	-	$230
35	Business Enablement	Organizational Readiness	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
36	Business Enablement	Organizational Readiness	IT Analyst	External Labor	383	-	-	-	-	383	$72	-	-	-	-	$72
37	Business Enablement	Organizational Readiness	Principal	External Labor	383	-	-	-	-	383	$72	-	-	-	-	$72
38		**Organizational Readiness Subtotal**			**15,179**	-	-	-	-	**15,179**	**$2,847**	-	-	-	-	**$2,847**
39			**Expense Subtotal**	**External Labor**	**22,332**	-	-	-	-	**22,332**	**$4,333**	-	-	-	-	**$4,333**

ERP - Business Enablement External / SI Labor					(G) = (C) + (E) Total Hours						(H) = (D) + (F) Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
40	Business Enablement	Operating Model	Business Analyst	External Labor	12,800	6,802	9,189	9,643	2,400	40,834	$2,659	$1,477	$2,063	$2,224	$572	$8,995
41	Business Enablement	Operating Model	Business Lead	External Labor	4,008	2,130	2,877	3,020	752	12,787	$833	$463	$646	$696	$179	$2,817
42	Business Enablement	Operating Model	Business Manager	External Labor	1,076	572	772	810	202	3,432	$223	$124	$173	$187	$48	$756
43	Business Enablement	Operating Model	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
44		**Operating Model Subtotal**			**17,884**	**9,503**	**12,839**	**13,474**	**3,353**	**57,052**	**$3,715**	**$2,064**	**$2,883**	**$3,107**	**$799**	**$12,568**
45	Business Enablement	Organizational Readiness	Business Analyst	External Labor	28,236	24,888	21,197	39,207	11,390	124,918	$5,297	$4,835	$4,298	$8,144	$2,452	$25,026
46	Business Enablement	Organizational Readiness	Business Lead	External Labor	4,734	4,172	3,554	6,573	1,910	20,942	$888	$811	$721	$1,365	$411	$4,196
47	Business Enablement	Organizational Readiness	Business Manager	External Labor	3,064	2,701	2,300	4,255	1,236	13,556	$575	$525	$466	$884	$266	$2,716
48	Business Enablement	Organizational Readiness	Consultant (Other SI)	External Labor	-	-	-	-	-	-	-	-	-	-	-	-
49	Business Enablement	Organizational Readiness	IT Analyst	External Labor	956	843	718	1,328	386	4,231	$179	$164	$146	$276	$83	$848
50	Business Enablement	Organizational Readiness	Principal	External Labor	956	843	718	1,328	386	4,231	$179	$164	$146	$276	$83	$848
51		**Organizational Readiness Subtotal**			**37,947**	**33,447**	**28,487**	**52,691**	**15,307**	**167,879**	**$7,118**	**$6,497**	**$5,776**	**$10,945**	**$3,296**	**$33,633**
52			**Grand Total**	**External Labor**	**55,830**	**42,950**	**41,326**	**66,165**	**18,661**	**224,932**	**$10,833**	**$8,561**	**$8,659**	**$14,052**	**$4,095**	**$46,201**

ADDITIONAL WORKPAPER NOTES

A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-6F
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Business Enablement PG&E Labor Workpaper
Thousands of Dollars - Nominal

GIS — Business Enablement PG&E Labor Workpaper

PROGRAM	GIS
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for PG&E labor.
WORKPAPER FLOW	The workpaper traces the PG&E labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Business Enablement PG&E Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	$204	$273	$285	$296	-	$264	3.5	5.7	5.4	1.5	-	16.2
2	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	$183	$273	$285	$296	-	$256	0.5	0.6	0.7	0.2	-	2.0
3			**FTE Subtotal**	**PG&E Labor**							**4.0**	**6.3**	**6.1**	**1.7**	**-**	**18.1**

					(C)						(D) = (A) * (C)					
GIS - Business Enablement PG&E Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
4	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	3,395	10,188	9,782	2,745	-	26,110	$888	$2,784	$2,792	$813	-	$7,277
5	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	327	1,130	1,210	302	-	2,969	$86	$309	$345	$90	-	$829
6			**Capital Subtotal**	**PG&E Labor**	**3,722**	**11,318**	**10,992**	**3,047**	**-**	**29,079**	**$974**	**$3,093**	**$3,137**	**$902**	**-**	**$8,107**

					(E)						(F) = (A) * (E)					
GIS - Business Enablement PG&E Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
7	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	2,983	-	-	-	-	2,983	$412	-	-	-	-	$412
8	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	578	-	-	-	-	578	$80	-	-	-	-	$80
9			**Expense Subtotal**	**PG&E Labor**	**3,561**	**-**	**-**	**-**	**-**	**3,561**	**$492**	**-**	**-**	**-**	**-**	**$492**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Business Enablement PG&E Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
10	Business Enablement	Organizational Readiness	Business Analyst	PG&E Labor	6,378	10,188	9,782	2,745	-	29,093	$1,300	$2,784	$2,792	$813	-	$7,689
11	Business Enablement	Organizational Readiness	Business Lead	PG&E Labor	905	1,130	1,210	302	-	3,547	$165	$309	$345	$90	-	$909
12			**Grand Total**	**PG&E Labor**	**7,283**	**11,318**	**10,992**	**3,047**	**-**	**32,640**	**$1,466**	**$3,093**	**$3,137**	**$902**	**-**	**$8,598**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-6G
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS - Business Enablement External / Systems Integrator Labor Workpaper
Thousands of Dollars - Nominal

GIS — Business Enablement External / Systems Integrator (SI) Labor Workpaper

PROGRAM	GIS
COST GROUP	Business Enablement
WORKPAPER DESCRIPTION	Detail workpaper presenting annual staffing, capital, O&M, and total cost forecast by program and workstream for external/SI labor.
WORKPAPER FLOW	The workpaper traces external/SI labor forecast from staffing assumptions to capital and expense forecasts. (A) presents hourly staffing rates, (B) presents forecast FTEs, and (C) presents capital hours by resource and year. Capital hours in (C) are multiplied by the applicable staffing rates in (A) to calculate the capital forecast in (D). Expense hours and forecasts are calculated similarly.
FORECAST METHODOLOGY	PG&E developed the Business Enablement forecast using the Resource-Based, Benchmark-Informed, and SME Judgment estimating methodologies described in Chapter 3, Section B.1.

					(A)						(B)					
GIS - Business Enablement External / SI Labor					Staffing Rate $/HR						Staffing FTE					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
1	Business Enablement	Operating Model	Business Analyst	External Labor	$235	$264	$270	$276	-	$260	1.0	1.4	1.4	0.4	-	4.1
2		**Operating Model Subtotal**									**1.0**	**1.4**	**1.4**	**0.4**	**-**	**4.1**
3	Business Enablement	Organizational Readiness	Business Analyst	External Labor	$78	$93	$100	$98	-	$93	4.1	8.3	9.6	2.3	-	24.3
4	Business Enablement	Organizational Readiness	Business Lead	External Labor	$316	$253	$257	$279	-	$272	2.3	3.2	3.2	1.0	-	9.7
5	Business Enablement	Organizational Readiness	Business Manager	External Labor	$248	$239	$245	$264	-	$245	1.3	1.8	1.8	0.4	-	5.2
6	Business Enablement	Organizational Readiness	Principal	External Labor	$543	$369	$378	$387	-	$419	0.1	0.1	0.1	0.0	-	0.4
7		**Organizational Readiness Subtotal**									**7.8**	**13.5**	**14.7**	**3.7**	**-**	**39.6**
8			**FTE Subtotal**	**External Labor**							8.8	14.9	16.1	4.0	-	43.8

					(C)						(D) = (A) * (C)					
GIS - Business Enablement External / SI Labor					Capital Hours						Capital Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
9	Business Enablement	Operating Model	Business Analyst	External Labor	1,100	2,480	2,468	650	-	6,697	$258	$654	$666	$180	-	$1,758
10		**Operating Model Subtotal**			**1,100**	**2,480**	**2,468**	**650**	**-**	**6,697**	**$258**	**$654**	**$666**	**$180**	**-**	**$1,758**
11	Business Enablement	Organizational Readiness	Business Analyst	External Labor	6,605	25,191	26,981	6,811	-	65,589	$444	$2,347	$2,711	$667	-	$6,169
12	Business Enablement	Organizational Readiness	Business Lead	External Labor	2,478	6,965	7,041	2,046	-	18,530	$854	$1,765	$1,808	$570	-	$4,997
13	Business Enablement	Organizational Readiness	Business Manager	External Labor	889	3,152	3,172	707	-	7,920	$222	$755	$778	$187	-	$1,941
14	Business Enablement	Organizational Readiness	Principal	External Labor	21	264	264	63	-	612	$12	$97	$100	$24	-	$233
15		**Organizational Readiness Subtotal**			**9,993**	**35,572**	**37,459**	**9,627**	**-**	**92,651**	**$1,531**	**$4,964**	**$5,397**	**$1,448**	**-**	**$13,340**
16			**Capital Subtotal**	**External Labor**	**11,093**	**38,052**	**39,926**	**10,277**	**-**	**99,348**	**$1,789**	**$5,618**	**$6,063**	**$1,628**	**-**	**$15,098**

					(E)						(F) = (A) * (E)					
GIS - Business Enablement External / SI Labor					Expense Hours						Expense Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
17	Business Enablement	Operating Model	Business Analyst	External Labor	733	-	-	-	-	733	$172	-	-	-	-	$172
18		**Operating Model Subtotal**			**733**	**-**	**-**	**-**	**-**	**733**	**$172**	**-**	**-**	**-**	**-**	**$172**
19	Business Enablement	Organizational Readiness	Business Analyst	External Labor	7,159	-	-	-	-	7,159	$629	-	-	-	-	$629
20	Business Enablement	Organizational Readiness	Business Lead	External Labor	2,528	-	-	-	-	2,528	$729	-	-	-	-	$729
21	Business Enablement	Organizational Readiness	Business Manager	External Labor	1,468	-	-	-	-	1,468	$363	-	-	-	-	$363
22	Business Enablement	Organizational Readiness	Principal	External Labor	192	-	-	-	-	192	$104	-	-	-	-	$104
23		**Organizational Readiness Subtotal**			**11,347**	**-**	**-**	**-**	**-**	**11,347**	**$1,825**	**-**	**-**	**-**	**-**	**$1,825**
24			**Expense Subtotal**	**External Labor**	**12,080**	**-**	**-**	**-**	**-**	**12,080**	**$1,997**	**-**	**-**	**-**	**-**	**$1,997**

					(G) = (C) + (E)						(H) = (D) + (F)					
GIS - Business Enablement External / SI Labor					Total Hours						Total Forecast					
Line No.	Cost Group	Workstream	Resource	Type	2026	2027	2028	2029	2030	Total	2026	2027	2028	2029	2030	Total
25	Business Enablement	Operating Model	Business Analyst	External Labor	1,833	2,480	2,468	650	-	7,431	$431	$654	$666	$180	-	$1,930
26		**Operating Model Subtotal**			**1,833**	**2,480**	**2,468**	**650**	**-**	**7,431**	**$431**	**$654**	**$666**	**$180**	**-**	**$1,930**
27	Business Enablement	Organizational Readiness	Business Analyst	External Labor	13,765	25,191	26,981	6,811	-	72,748	$1,073	$2,347	$2,711	$667	-	$6,799
28	Business Enablement	Organizational Readiness	Business Lead	External Labor	5,006	6,965	7,041	2,046	-	21,058	$1,582	$1,765	$1,808	$570	-	$5,725
29	Business Enablement	Organizational Readiness	Business Manager	External Labor	2,357	3,152	3,172	707	-	9,388	$585	$755	$778	$187	-	$2,304
30	Business Enablement	Organizational Readiness	Principal	External Labor	213	264	264	63	-	804	$116	$97	$100	$24	-	$337
31		**Organizational Readiness Subtotal**			**21,341**	**35,572**	**37,459**	**9,627**	**-**	**103,998**	**$3,356**	**$4,964**	**$5,397**	**$1,448**	**-**	**$15,165**
32			**Grand Total**	**External Labor**	**23,174**	**38,052**	**39,926**	**10,277**	**-**	**111,429**	**$3,787**	**$5,618**	**$6,063**	**$1,628**	**-**	**$17,096**

ADDITIONAL WORKPAPER NOTES A zero, dash, or blank indicates no recorded or forecast amount

Workpaper 3-7
Pacific Gas and Electric Company
ERP and GIS Transformation
Phase Zero and Enterprise Design Allocation

WP#	Workpaper Name
	Summary WPs
3-7	Testimony Tables
3-7A	ERP Phase Zero and Enterprise Design Allocation
3-7B	GIS Phase Zero and Enterprise Design Allocation

Workpaper 3-7
Pacific Gas and Electric Company
ERP and GIS Transformation
Recorded Costs - Testimony Table

Recorded Costs - Testimony Table

TABLE 3-30
RECORDED CAPITAL EXPENDITURES
(MILLIONS OF NOMINAL DOLLARS)

	External / SI			PG&E			Non Labor			Total			
Cost Group	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**	**Total**
Solution	1.8	7.5	46.1	1.4	5.8	35.2				3.2	13.3	81.3	97.8
Technology Infrastructure and Software[1]	-	-	-	-	-	-		18.2	16.7	-	18.2	16.7	34.9
Technology Enablement	0.2	0.8	5.1	0.2	0.7	4.0				0.4	1.5	9.1	11.0
Application Remediation	0.4	1.6	9.8	0.1	0.4	2.3				0.5	2.0	12.1	14.6
Program Management Office	0.2	1.0	6.1	0.2	0.7	4.1				0.4	1.7	10.2	12.3
Business Enablement	0.2	0.7	4.2	0.2	0.7	4.3				0.3	1.4	8.6	10.3
ERP Total	**2.8**	**11.7**	**71.3**	**2.0**	**8.2**	**50.0**	**-**	**18.2**	**16.7**	**4.8**	**38.1**	**138.0**	**180.9**
Solution		1.4	10.4		1.0	7.2				-	2.4	17.6	20.0
Technology Infrastructure and Software[1]		-	-		-	-			1.7	-	-	1.7	1.7
Technology Enablement		0.2	1.7		0.3	2.2				-	0.5	3.8	4.4
Application Remediation		0.3	2.4		0.1	1.1				-	0.5	3.4	3.9
Program Management Office		0.2	1.5		0.2	1.3				-	0.4	2.8	3.2
Business Enablement		0.1	1.1		0.1	0.5				-	0.2	1.6	1.8
GIS Total	**-**	**2.3**	**17.0**	**-**	**1.7**	**12.3**	**-**	**-**	**1.7**	**-**	**4.0**	**31.0**	**35.0**
Total	**2.8**	**14.0**	**88.3**	**2.0**	**9.8**	**62.3**	**-**	**18.2**	**18.4**	**4.8**	**42.0**	**169.0**	**215.9**

1) Technology Infrastructure and Software costs are directly assigned rather than allocated like the other cost groups.

WP 3-7A
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP Phase Zero and Enterprise Design Allocation
(Thousands of Dollars)

Phase Zero and Enterprise Design Recorded Costs (2023 - 2025)

Line 1	**Gross Phase Zero and Enterprise Design recorded costs (2023-2025)**
Line 2	**Adjustment to remove recorded O&M expenses incurred through December 31, 2026, for which PG&E is not seeking recovery in this Application.**
Line 3	**Adjustment to remove 2024 capital expenditures included in PG&E's 2027 GRC rate base to avoid duplicate recovery.**
Line 4	**Adjustment to exclude 2024 and 2025 recorded Technology Infrastructure and Software costs that were directly assigned to that workstream and therefore not included in the allocation.**
Line 5	**Net Phase Zero and Enterprise Design costs, after applicable adjustments, allocated to ERP and GIS cost groups and workstreams.**
Allocation	**The 2026–2030 capital forecast was used to develop allocation percentages by cost group and workstream, including the allocation between PG&E and External / SI labor.**
Recorded Expenditure Calculation	**Applies the applicable allocation percentage to the 2023–2025 net recorded (Line 5) to determine recorded spend by ERP and GIS cost group and workstream.**

Dollars in (000s)

Line No.	Category	Adjustment Type	2022 Capital	2022 Expense	2023 Capital	2023 Expense	2024 Capital	2024 Expense	2025 Capital	2025 Expense	Total
1	**Gross Recorded Spend**			500	4,800	4,600	40,200	12,700	137,983	32,212	232,995
2		Remove: Expense Incurred		(500)	0	(4,600)	0	(12,700)	0	(32,212)	(50,012)
3	**Adjustments**	Remove: Operative Capital (See Chapter 3, Section B.10)		0	0	0	(2,122)	0	0	0	(2,122)
4		Remove: Direct Assigned (Software Hardware)		0	0	0	(18,234)	-	(16,708)	-	(34,942)
5	**Net Recorded for Allocation**			**-**	**4,800**	**-**	**19,844**	**-**	**121,275**	**-**	**145,920**

Dollars in (000s)

	Cost Group	Workstream	Group	Capital Forecast 2026-2030	Allocation (% of Capital Forecast)	2022 Capital	2022 Expense	2023 Capital	2023 Expense	2024 Capital	2024 Expense	2025 Capital	2025 Expense	Total
6	**Application Remediation**	**Application Remediation**	External / SI	131,439	8.08%			388	-	1,604	-	9,801	-	11,793
7	**Application Remediation**	**Application Remediation**	PG&E	31,064	1.91%			92	-	379	-	2,316	-	2,787
8	**Business Enablement**	**Operating Model**	External / SI	15,043	0.92%			44	-	184	-	1,122	-	1,350
9	**Business Enablement**	**Operating Model**	PG&E	11,009	0.68%			32	-	134	-	821	-	988
10	**Business Enablement**	**Organizational Readiness**	External / SI	41,623	2.56%			123	-	508	-	3,104	-	3,735
11	**Business Enablement**	**Organizational Readiness**	PG&E	47,277	2.91%			140	-	577	-	3,525	-	4,242
12	**Program Management Office**	**Program Management Office**	External / SI	81,439	5.01%			240	-	994	-	6,073	-	7,307
13	**Program Management Office**	**Program Management Office**	PG&E	55,294	3.40%			163	-	675	-	4,123	-	4,961
14	**Solution**	**Data & Analytics**	External / SI	73,827	4.54%			218	-	901	-	5,505	-	6,624
15	**Solution**	**Data & Analytics**	PG&E	24,318	1.50%			72	-	297	-	1,813	-	2,182
16	**Solution**	**Development, Integration, & Solution Delivery**	External / SI	147,934	9.10%			437	-	1,805	-	11,031	-	13,273
17	**Solution**	**Development, Integration, & Solution Delivery**	PG&E	95,252	5.86%			281	-	1,162	-	7,103	-	8,546
18	**Solution**	**Enterprise Health & Safety**	External / SI	7,033	0.43%			21	-	86	-	524	-	631
19	**Solution**	**Enterprise Health & Safety**	PG&E	7,541	0.46%			22	-	92	-	562	-	677
20	**Solution**	**Finance**	External / SI	79,398	4.88%			234	-	969	-	5,921	-	7,124
21	**Solution**	**Finance**	PG&E	60,345	3.71%			178	-	736	-	4,500	-	5,414
22	**Solution**	**Human Resources**	External / SI	49,453	3.04%			146	-	603	-	3,688	-	4,437
23	**Solution**	**Human Resources**	PG&E	36,292	2.23%			107	-	443	-	2,706	-	3,256
24	**Solution**	**Integrated Planning**	External / SI	17,232	1.06%			51	-	210	-	1,285	-	1,546
25	**Solution**	**Integrated Planning**	PG&E	11,222	0.69%			33	-	137	-	837	-	1,007
26	**Solution**	**Supply Chain**	External / SI	77,406	4.76%			228	-	945	-	5,772	-	6,945
27	**Solution**	**Supply Chain**	PG&E	71,974	4.43%			212	-	878	-	5,367	-	6,458
28	**Solution**	**Work and Asset Management**	External / SI	166,326	10.23%			491	-	2,029	-	12,403	-	14,923
29	**Solution**	**Work and Asset Management**	PG&E	164,507	10.12%			486	-	2,007	-	12,267	-	14,760
30	**Technology Enablement**	**Controls & Compliance**	External / SI	16,595	1.02%			49	-	202	-	1,237	-	1,489
31	**Technology Enablement**	**Controls & Compliance**	PG&E	14,167	0.87%			42	-	173	-	1,056	-	1,271
32	**Technology Enablement**	**Platform Architecture & Security**	External / SI	51,410	3.16%			152	-	627	-	3,834	-	4,613
33	**Technology Enablement**	**Platform Architecture & Security**	PG&E	39,920	2.45%			118	-	487	-	2,977	-	3,582
34	**Grand Total**			**1,626,338**	**100%**			**4,800**	**-**	**19,844**	**-**	**121,275**	**-**	**145,920**

WP 3-7B
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS Phase Zero and Enterprise Design Allocation
(Thousands of Dollars)

Phase Zero and Enterprise Design Recorded Costs (2023 - 2025)

Line 1	**Gross Phase Zero and Enterprise Design recorded costs (2024-2025)**
Line 2	**Adjustment to remove recorded O&M expenses incurred through December 31, 2026, for which PG&E is not seeking recovery in this Application.**
Line 3	**Adjustment to remove 2024 capital expenditures included in PG&E's 2027 GRC rate base to avoid duplicate recovery.**
Line 4	**Adjustment to exclude 2024 and 2025 recorded Technology Infrastructure and Software costs that were directly assigned to that workstream and therefore not included in the allocation.**
Line 5	**Net Phase Zero and Enterprise Design costs, after applicable adjustments, allocated to ERP and GIS cost groups and workstreams.**
Allocation	**The 2026–2030 capital forecast was used to develop allocation percentages by cost group and workstream, including the allocation between PG&E and External / SI labor.**
Recorded Expenditure Calculation	**Applies the applicable allocation percentage to the 2024–2025 net recorded (Line 5) to determine recorded spend by ERP and GIS cost group and workstream.**

Dollars in (000s)

Line No.	Category	Adjustment Type	2022 Capital	2022 Expense	2023 Capital	2023 Expense	2024 Capital	2024 Expense	2025 Capital	2025 Expense	Total
1	**Gross Recorded Spend**						4,359	1,578	31,031	7,756	44,724
2		Remove: Expense Incurred						(1,578)		(7,756)	(9,333)
3	**Adjustments**	Remove: Operative Capital (See Chapter 3, Section B.10)					(400)				(400)
4		Remove: Direct Assigned (Software Hardware)							(1,700)		(1,700)
5	**Net Recorded for Allocation**		**-**	**-**	**-**	**-**	**3,959**	**-**	**29,331**	**-**	**33,291**

Dollars in (000s)

	Cost Group	Workstream	Group	Capital Forecast 2026-2030	Allocation (% of Capital Forecast)	2022 Capital	2022 Expense	2023 Capital	2023 Expense	2024 Capital	2024 Expense	2025 Capital	2025 Expense	Total
6	**Application Remediation**	**Application Remediation**	External / SI	45,500	8.11%			-	-	321	-	2,378	-	2,698
7	**Application Remediation**	**Application Remediation**	PG&E	20,418	3.64%			-	-	144	-	1,067	-	1,211
8	**Business Enablement**	**Operating Model**	External / SI	2,434	0.43%			-	-	17	-	127	-	144
9	**Business Enablement**	**Operating Model**	PG&E	-	0.00%			-	-	-	-	-	-	-
10	**Business Enablement**	**Organizational Readiness**	External / SI	18,127	3.23%			-	-	128	-	947	-	1,075
11	**Business Enablement**	**Organizational Readiness**	PG&E	10,420	1.86%			-	-	73	-	544	-	618
12	**Program Management Office**	**Program Management Office**	External / SI	28,796	5.13%			-	-	203	-	1,505	-	1,708
13	**Program Management Office**	**Program Management Office**	PG&E	25,439	4.53%			-	-	179	-	1,329	-	1,509
14	**Solution**	**Applications & Processes**	External / SI	159,033	28.33%			-	-	1,122	-	8,310	-	9,432
15	**Solution**	**Applications & Processes**	PG&E	125,797	22.41%			-	-	887	-	6,573	-	7,461
16	**Solution**	**Data Migration & Conversion**	External / SI	39,262	6.99%			-	-	277	-	2,052	-	2,329
17	**Solution**	**Data Migration & Conversion**	PG&E	12,629	2.25%			-	-	89	-	660	-	749
18	**Technology Enablement**	**Platform Architecture & Security**	External / SI	31,984	5.70%			-	-	226	-	1,671	-	1,897
19	**Technology Enablement**	**Platform Architecture & Security**	PG&E	41,493	7.39%			-	-	293	-	2,168	-	2,461
20	**Grand Total**			**561,333**	**100%**			**-**	**-**	**3,959**	**-**	**29,331**	**-**	**33,291**

Workpaper 3-8
ERP and GIS Transformation
Technical Upgrade Costs

WP#	Workpaper Name
	Summary WPs
3-8A	Technical Upgrade Costs - ERP
3-8B	Technical Upgrade Costs - GIS

Workpaper 3-8A
Pacific Gas and Electric Company
ERP and GIS Transformation
Technical Upgrade Cost Forecast - ERP
Thousands of Dollars - Nominal

Total Costs by Cost Group and Workstream, Including Technical Upgrade Adjustments

Line No.	Cost Group	Workstream or Cost Component	Transformation Forecast	Technical Upgrade Adjustment	Adjustment Amount	Technical Upgrade Forecast	Basis for Adjustment
1	Program Management Office	Program Management Office	$ 151,826	-80%	$ (120,717)	$ 31,109	Reduced governance and transformation-specific value realization activities
2	Technical Enablement	Controls & Compliance	$ 34,158	-75%	$ (25,461)	$ 8,697	Removal of controls redesign associated with transformed business processes
3	Technical Enablement	Platform Architecture & Security	$ 101,411	0%	$ -	$ 101,411	No adjustment; activites still required
4	Solution	Work and Asset Management	$ 367,353	-70%	$ (255,494)	$ 111,859	Removes broader process redesign and net-new capabilities
5	Solution	Integrated Planning	$ 31,594	-100%	$ (31,594)	$ -	Removal of IP scope
6	Solution	Finance	$ 155,168	-70%	$ (107,919)	$ 47,249	Removes broader process redesign and net-new capabilities
7	Solution	Supply Chain	$ 165,871	-70%	$ (115,446)	$ 50,425	Removes broader process redesign and net-new capabilities
8	Solution	Human Resources	$ 95,210	-70%	$ (66,218)	$ 28,991	Removes broader process redesign and net-new capabilities
9	Solution	Enterprise Health & Safety	$ 16,182	-70%	$ (11,263)	$ 4,919	Removes broader process redesign and net-new capabilities
10	Solution	Data & Analytics	$ 108,980	-20%	$ (21,360)	$ 87,620	Removal of net-new analytics capabilities
11	Solution	Development, Integration, & Solution Delivery	$ 270,031	-25%	$ (66,428)	$ 203,603	Proportional reduction with scope removal; integration work still required
12	Business Enablement	Organizational Readiness	$ 98,714	-75%	$ (73,552)	$ 25,162	Limited training and support
13	Business Enablement	Operating Model	$ 28,928	-75%	$ (21,554)	$ 7,374	Limited role / org redesign
14	Application Remediation	Application Remediation	$ 180,441	-70%	$ (125,587)	$ 54,854	Narrower scope of application changes required
15		**Labor Total**	**$ 1,805,866**		**$ (1,042,593)**	**$ 763,273**	
16	Non-Labor	Technology Infrastructure & Software	$ 301,655	-60%	$ (180,900)	$ 120,755	Removal of licenses and capabilities associated with transformation scope
17		**Non Labor Total**	**$ 301,655**		**$ (180,900)**	**$ 120,755**	
18		**Total Costs**	**$ 2,107,521**		**$ (1,223,493)**	**$ 884,028**	

Workpaper 3-8B
Pacific Gas and Electric Company
ERP and GIS Transformation
Technical Upgrade Cost Forecast - GIS
Thousands of Dollars - Nominal

Total Costs by Cost Group and Workstream, Including Technical Upgrade Adjustments

Line No.	Cost Group	Workstream or Cost Component	Transformation Forecast	Technical Upgrade Adjustment	Adjustment Amount	Technical Upgrade Forecast	Basis for Adjustment
1	Program Management Office	Program Management Office	$ 58,534	-15%	$ (8,546)	$ 49,988	Reduced governance and transformation-specific value realization activities
2	Technical Enablement	Platform Architecture & Security	$ 79,301	-20%	$ (15,543)	$ 63,758	Reduction in activity associated with reduced scope
3	Solution	Data Migration & Conversion	$ 56,004	-10%	$ (5,320)	$ 50,684	Reduction in activity associated with reduced scope
4	Solution	Applications & Processes	$ 326,970	-30%	$ (96,783)	$ 230,187	Significant adjustment to scale down Enterprise GIS, transformation enhancements and solution effort
5	Business Enablement	Operating Model	$ 2,627	-20%	$ (525)	$ 2,102	Reduced role and org redesign
6	Business Enablement	Organizational Readiness	$ 30,810	-20%	$ (6,128)	$ 24,681	Reduced training and change readiness activities
7	Application Remediation	Application Remediation	$ 71,143	-10%	$ (7,065)	$ 64,079	Narrower scope of application changes required
8		**Labor Total**	**$ 625,389**		**$ (139,910)**	**$ 485,478**	
9	Non-Labor	SW/HW	$ 177,766	-10%	$ (17,777)	$ 159,989	Reduction in cloud costs associated with reduced scope
10		**Non Labor Total**	**$ 177,766**		**$ (17,777)**	**$ 159,989**	
11		**Total Costs**	**$ 803,154**		**$ (157,687)**	**$ 645,467**	

Workpaper 3-9
Pacific Gas and Electric Company
ERP and GIS Transformation
ERP and GIS Transformation Escalation Rates

WP #	Workpaper Name
3-9A	Cost Escalation Rates
3-9B	Benefit Escalation Rates

Workpaper 3-9A
Pacific Gas and Electric Company
ERP and GIS Transformation
Cost Escalation Rates

Cost Escalation Rates									
Line No.	Cost Type	Cost	Escalation Basis	2026	2027	2028	2029	2030	Source
1	Labor	PG&E Labor	Labor Esc Rate	4.44%	4.44%	4.44%	3.75%	3.75%	Composite Labor Escalation Rate (Internal)
2	Labor	External Labor	S&P Global Capital Esc Rate	2.97%	2.41%	2.43%	2.27%	2.35%	S&P Global Q1 2026 Capital Common Plant Indices
3	Non Labor	Capital	S&P Global Capital Esc Rate	2.97%	2.41%	2.43%	2.27%	2.35%	S&P Global Q1 2026 Capital Common Plant Indices
4	Non Labor	Expense	S&P Global O&M Esc Rate	2.80%	2.07%	2.03%	2.21%	2.23%	S&P Global Q1 2026 O&M Indices

FOOTNOTES & ADDITIONAL EXPLANATIONS

Workpaper 3-9B
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Escalation Rates

Benefit Escalation Rates																		
Line No.	Cost Type	Cost	Escalation Basis	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Source
1	Labor	PG&E Labor (Expense Only)	Labor Esc Rate	3.75%	4.44%	4.44%	4.44%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	Composite Labor Escalation Rate (Internal)
2	Non Labor	Capital	S&P Global Capital Esc Rate	2.90%	4.15%	2.78%	1.92%	1.72%	1.69%	1.80%	1.85%	1.92%	2.00%	2.01%	2.02%	2.02%	2.02%	2.02%	S&P Global Q1 2026 Indices (Blended)
3	Non Labor	Expense	S&P Global O&M Esc Rate	3.28%	2.79%	1.67%	1.93%	2.02%	2.12%	2.13%	2.26%	2.24%	2.26%	2.18%	2.19%	2.19%	2.19%	2.19%	S&P Global Q1 2026 Indices (Blended)

FOOTNOTES & ADDITIONAL EXPLANATIONS

Workpaper 3-10
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit to Cost Ratio
(Millions of 2026 Present Value Revenue Requirement Dollars)

Discount Rate 7%

TOTAL PROGRAM

Category	PVRR	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Capital Revenue Requirement	$ 2,079.4	$ 1.3	$ 39.2	$ 126.5	$ 193.6	$ 328.7	$ 364.6	$ 348.8	$ 346.1	$ 317.5	$ 282.6	$ 263.8	$ 250.0	$ 236.0	$ 208.4	$ 147.4	$ 102.0	$ 26.3
Expense Revenue Requirement	$ 145.7	$ -	$ 10.8	$ 42.3	$ 62.1	$ 69.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Long term O&M Revenue Requirement	$ 523.8	$ -	$ -	$ -	$ -	$ -	$ 100.4	$ 102.7	$ 105.0	$ 107.5	$ 109.9	$ 112.5	$ 115.1	$ 117.7	$ 120.4	$ -	$ -	$ -
Total Program Costs Revenue Requirement	$ 2,748.9	$ 1.3	$ 50.0	$ 168.8	$ 255.7	$ 398.3	$ 465.0	$ 451.5	$ 451.2	$ 425.0	$ 392.5	$ 376.3	$ 365.1	$ 353.7	$ 328.8	$ 147.4	$ 102.0	$ 26.3
Capital Benefits Revenue Requirement	$ 1,809.1	$ -	$ -	$ -	$ -	$ -	$ (20.6)	$ 30.2	$ 122.3	$ 221.3	$ 328.9	$ 395.1	$ 443.4	$ 489.3	$ 533.6	$ 602.8	$ 578.0	$ 556.4
O&M Benefits Requirement	$ 1,454.7	$ -	$ -	$ -	$ -	$ -	$ 235.5	$ 356.4	$ 389.0	$ 398.5	$ 285.2	$ 249.2	$ 254.7	$ 262.8	$ 254.6	$ -	$ -	$ -
Total Program Benefits Revenue Requirement	$ 3,263.7	$ -	$ -	$ -	$ -	$ -	$ 214.8	$ 386.6	$ 511.3	$ 619.8	$ 614.2	$ 644.3	$ 698.1	$ 752.1	$ 788.2	$ 602.8	$ 578.0	$ 556.4
Benefit/Cost Ratio	**1.19**																	

Workpaper 3-11
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Work Efficiency

WP#	Workpaper Name
	Summary WPs
3-11	Testimony Table
3-11A	Work Efficiency Summary
	Detail Role WPs
3-11B	Field Technician - Work Efficiency Internal Labor Benefit Walkthrough
3-11C	Crew Lead - Work Efficiency Internal Labor Benefit Walkthrough
3-11D	Work Coordinator - Work Efficiency Internal Labor Benefit Walkthrough
3-11E	Scheduler - Work Efficiency Internal Labor Benefit Walkthrough
3-11F	Inspector - Work Efficiency Internal Labor Benefit Walkthrough
3-11G	Field Supervisor - Work Efficiency Internal Labor Benefit Walkthrough
3-11H	Dispatcher - Work Efficiency Internal Labor Benefit Walkthrough
3-11I	External Labor - Work Efficiency
	Assumptions & Reference Rates WPs
3-11J	Assumptions & Reference Rates - Work Efficiency Internal Labor
3-11K	Assumptions & Reference Rates - Work Efficiency External Labor

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-37
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$6,434.7**

Workpaper 3-11A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Work Efficiency
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Calculation Method	Role-based

DEFINITION

Field crews, inspectors, and supervisors spend less time on post-work documentation, time entry, work data capture, and job close-out, through digitized mobile tools that replace paper-based and multi-system processes. The largest efficiency gains come from faster completion of planning or administrative activities (not faster physical work execution), enabled by more efficient work bundling that reduces mobilization and ensures crews arrive with the right materials and information. With a single enterprise model providing better visibility, work coordinators are more efficient in pre-work activities, staging materials, confirming readiness, and coordinating clearances. A single enterprise mobile platform replaces fragmented systems and manual processes, capturing work completion data at the point of execution. A simplified work model of approximately 450 MAT codes and nine order types reduces administrative complexity for field personnel.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Role	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Field Technician	98,392	55,844	154,236	$149,944	$85,104	$235,048
2	Crew Lead	9,891	4,276	14,167	$14,842	$6,416	$21,258
3	Work Coordinator	3,538	766	4,304	$5,139	$1,113	$6,252
4	Scheduler	5	8	13	$8	$13	$21
5	Inspector	4,774	4,509	9,283	$7,506	$7,088	$14,594
6	Field Supervisor	1,647	1,285	2,932	$2,559	$1,997	$4,556
7	Dispatcher	6	232	237	$10	$408	$419
8	**Subtotal: Internal Labor**	**$118,253**	**$66,920**	**$185,173**	**$180,008**	**$102,138**	**$282,146**
9	**External Labor**	**$206,056**	**$44,274**	**$250,330**	**$285,428**	**$61,329**	**$346,757**
10	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
11	**TOTAL VALUE DRIVER BENEFIT**	**$324,309**	**$111,194**	**$435,503**	**$465,436**	**$163,467**	**$628,903**
12	**Peak Annual Benefit, Un-escalated**	**$435,503**					
13	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Role	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Field Technician	$563	$5,181	$23,327	$71,462	$127,847	$152,212	$154,236	$154,236	$154,236	$154,236	$154,236	$154,236	$1,306,005
15	Internal labor - Crew Lead	$27	$251	$1,999	$7,165	$12,336	$14,030	$14,167	$14,167	$14,167	$14,167	$14,167	$14,167	$120,810
16	Internal labor - Work Coordinator	$1	$8	$372	$1,684	$3,402	$4,235	$4,304	$4,304	$4,304	$4,304	$4,304	$4,304	$35,529
17	Internal labor - Scheduler	$0	$0	$0	$2	$7	$12	$13	$13	$13	$13	$13	$13	$98
18	Internal labor - Inspector	$19	$175	$804	$2,865	$6,652	$9,077	$9,283	$9,283	$9,283	$9,283	$9,283	$9,283	$75,293
19	Internal labor - Field Supervisor	$19	$175	$400	$831	$1,977	$2,857	$2,932	$2,932	$2,932	$2,932	$2,932	$2,932	$23,853
20	Internal labor - Dispatcher	$0	$0	$20	$93	$188	$234	$237	$237	$237	$237	$237	$237	$1,959
21	**Subtotal: Internal Labor**	**$629**	**$5,791**	**$26,923**	**$84,101**	**$152,409**	**$182,656**	**$185,173**	**$185,173**	**$185,173**	**$185,173**	**$185,173**	**$185,173**	**$1,563,547**
22	External labor	$619	$5,693	$48,273	$165,880	$247,846	$250,330	$250,330	$250,330	$250,330	$250,330	$250,330	$250,330	2,220,623
23	**TOTAL: ALL COMPONENTS**	**$1,248**	**$11,485**	**$75,196**	**$249,980**	**$400,256**	**$432,986**	**$435,503**	**$435,503**	**$435,503**	**$435,503**	**$435,503**	**$435,503**	**$3,784,170**
24	Capital	$766	$7,045	$54,935	$189,829	$301,756	$322,738	$324,309	$324,309	$324,309	$324,309	$324,309	$324,309	$2,822,925
25	Expense incl. NEE	$483	$4,440	$20,260	$60,152	$98,500	$110,248	$111,194	$111,194	$111,194	$111,194	$111,194	$111,194	$961,244
26	**CUMULATIVE**	**$1,248**	**$12,733**	**$87,929**	**$337,909**	**$738,165**	**$1,171,151**	**$1,606,654**	**$2,042,157**	**$2,477,660**	**$2,913,163**	**$3,348,666**	**$3,784,170**	
27	**CUMULATIVE BENEFITS**	**$3,784,170**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
28	Internal labor - Field Technician	$654	$6,198	$28,305	$88,271	$161,666	$197,464	$205,473	$211,036	$216,776	$222,688	$228,777	$235,048	$1,802,355
29	Internal labor - Crew Lead	$32	$301	$2,399	$8,748	$15,441	$18,034	$18,683	$19,169	$19,669	$20,184	$20,713	$21,258	$164,630
30	Internal labor - Work Coordinator	$1	$10	$437	$2,017	$4,181	$5,341	$5,558	$5,690	$5,825	$5,964	$6,106	$6,252	$47,381
31	Internal labor - Scheduler	$0	$0	$0	$2	$10	$17	$18	$18	$19	$19	$20	$21	$143
32	Internal labor - Inspector	$22	$202	$948	$3,497	$8,474	$11,986	$12,623	$12,992	$13,374	$13,768	$14,174	$14,594	$106,651
33	Internal labor - Field Supervisor	$22	$204	$479	$1,025	$2,520	$3,748	$3,956	$4,069	$4,185	$4,305	$4,428	$4,556	$33,495
34	Internal labor - Dispatcher	$0	$0	$25	$122	$256	$331	$349	$362	$375	$389	$404	$419	$3,031
35	External labor	$693	$6,485	$55,932	$195,758	$298,108	$307,047	$313,328	$319,720	$326,275	$332,964	$339,791	$346,757	**$2,842,859**
36	**TOTAL, ALL COMPONENTS, ESCALATED**	**$1,422**	**$13,401**	**$88,525**	**$299,440**	**$490,656**	**$543,967**	**$559,989**	**$573,055**	**$586,497**	**$600,280**	**$614,412**	**$628,903**	**$5,000,546**
37	Capital	$860	$8,045	$63,794	$224,407	$363,322	$396,046	$405,934	$414,093	$422,458	$430,991	$439,697	$448,579	$3,618,227
38	Expense incl. NEE	$563	$5,355	$24,731	$75,032	$127,334	$147,921	$154,055	$158,962	$164,040	$169,289	$174,715	$180,324	$1,382,319
39	**CUMULATIVE, ESCALATED**	**$1,422**	**$14,823**	**$103,348**	**$402,787**	**$893,443**	**$1,437,410**	**$1,997,399**	**$2,570,454**	**$3,156,951**	**$3,757,231**	**$4,371,643**	**$5,000,546**	

Workpaper 3-11B
Pacific Gas and Electric Company
ERP and GIS Transformation
Field Technician - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Field Technician**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management (OH)**		**Benefits (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	143,455	104,245	130,072	49,850	72,017	1,888	345,544	155,983
2	Gas Distribution	89,882	63,939	92,323	36,381	44,444	19	226,648	100,339
3	Electric General	58,445	29,596	48,596	11,729	29,292	458	136,333	41,782
4	Substation	47,767	24,891	41,722	11,128	24,495	7	113,985	36,025
5	Shared Services	32,774	38,960	35,009	21,535	15,984	115	83,768	60,609
6	Gas Transmission	20,593	20,684	22,241	11,943	10,115	0	52,949	32,627
7	Power Generation	17,617	38,608	3,168	9,765	8,457	0	29,242	48,373
8	Electric Transmission	14,568	10,993	13,291	5,533	7,486	20	35,346	16,546
9	Gas General	11,004	12,305	11,699	7,139	5,498	3	28,201	19,447
10	Gas Facilities	3,809	4,516	3,743	2,628	2,142	0	9,695	7,144
11	**TOTAL**	**$439,914**	**$348,737**	**$401,866**	**$167,629**	**$219,930**	**$2,510**	**$1,061,710**	**$518,876**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions tab. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Benefit**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
12		Direct Time	143,455	104,245	35.00%	50,209	36,486
13	Electric Distribution	Management OH	130,072	49,850	35.00%	45,525	17,449
14		Benefits OH	72,017	1,888	35.00%	25,206	661
15		**Electric Distribution Total**	**$345,544**	**$155,983**	**35.00%**	**$120,940**	**$54,596**
16		Direct Time	89,882	63,939	20.00%	17,976	12,788
17	Gas Distribution	Management OH	92,323	36,381	20.00%	18,466	7,276
18		Benefits OH	44,444	19	20.00%	8,889	4
19		**Gas Distribution Total**	**$226,648**	**$100,339**	**20.00%**	**$45,330**	**$20,068**
20		Direct Time	58,445	29,596	30.26%	17,687	8,956
21	Electric General	Management OH	48,596	11,729	30.26%	14,747	3,619
22		Benefits OH	29,292	458	30.26%	8,865	138
23		**Electric General Total**	**$136,333**	**$41,782**	**30.32%**	**$41,298**	**$12,714**
24		Direct Time	47,767	24,891	20.00%	9,553	4,977
25	Substation	Management OH	41,722	11,128	20.00%	8,345	2,230
26		Benefits OH	24,495	7	20.00%	4,899	1
27		**Substation Total**	**$113,985**	**$36,025**	**20.00%**	**$22,797**	**$7,209**
28		Direct Time	32,774	38,960	27.87%	9,135	10,859
29	Shared Services	Management OH	35,009	21,535	27.87%	9,759	6,004
30		Benefits OH	15,984	115	27.87%	4,455	32
31		**Shared Services Total**	**$83,768**	**$60,609**	**27.88%**	**$23,350**	**$16,895**
32		Direct Time	20,593	20,684	20.00%	4,119	4,137
33	Gas Transmission	Management OH	22,241	11,943	20.00%	4,448	2,389
34		Benefits OH	10,115	0	20.00%	2,023	0
35		**Gas Transmission Total**	**$52,949**	**$32,627**	**20.00%**	**$10,590**	**$6,525**
36		Direct Time	17,617	38,608	35.00%	6,166	13,513
37	Power Generation	Management OH	3,168	9,765	35.00%	1,116	3,448
38		Benefits OH	8,457	0	35.00%	2,960	0
39		**Power Generation Total**	**$29,242**	**$48,373**	**35.05%**	**$10,242**	**$16,961**
40		Direct Time	14,568	10,993	20.00%	2,914	2,199
41	Electric Transmission	Management OH	13,291	5,533	20.00%	2,658	1,107
42		Benefits OH	7,486	20	20.00%	1,497	4
43		**Electric Transmission Total**	**$35,346**	**$16,546**	**20.00%**	**$7,069**	**$3,309**
44		Direct Time	11,004	12,305	20.00%	2,201	2,461
45	Gas General	Management OH	11,699	7,139	20.00%	2,340	1,428
46		Benefits OH	5,498	3	20.00%	1,100	1
47		**Gas General Total**	**$28,201**	**$19,447**	**20.00%**	**$5,640**	**$3,890**
48		Direct Time	3,809	4,516	20.00%	762	903
49	Gas Facilities	Management OH	3,743	2,628	20.00%	749	526
50		Benefits OH	2,142	0	20.00%	428	0
51		**Gas Facilities Total**	**$9,695**	**$7,144**	**20.00%**	**$1,939**	**$1,429**
52		**TOTAL**	**$1,061,710**	**$518,876**	**27.38%**	**$289,196**	**$143,595**

Workpaper 3-11B
Pacific Gas and Electric Company
ERP and GIS Transformation
Field Technician - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Field Technician**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
53		Direct Time	50,209	36,486	60.00%	75.00%	45.00%	22,594	16,419
54	Electric Distribution	Management OH	45,525	17,449	35.00%	75.00%	26.25%	11,950	4,580
55		Benefits OH	25,206	661	35.00%	75.00%	26.25%	6,617	173
56		**Electric Distribution Total**	**$120,940**	**$54,596**			**35.51%**	**$41,161**	**$21,173**
57		Direct Time	17,976	12,788	60.00%	75.00%	45.00%	8,089	5,754
58	Gas Distribution	Management OH	18,466	7,276	35.00%	75.00%	26.25%	4,847	1,910
59		Benefits OH	8,889	4	35.00%	75.00%	26.25%	2,333	1
60		**Gas Distribution Total**	**$45,330**	**$20,068**			**35.07%**	**$15,270**	**$7,666**
61		Direct Time	17,687	8,956	60.00%	75.00%	45.00%	7,959	4,030
62	Electric General	Management OH	14,747	3,619	35.00%	75.00%	26.25%	3,871	950
63		Benefits OH	8,865	138	35.00%	75.00%	26.25%	2,327	36
64		**Electric General Total**	**$41,298**	**$12,714**			**35.50%**	**$14,157**	**$5,017**
65		Direct Time	9,553	4,977	60.00%	75.00%	45.00%	4,299	2,240
66	Substation	Management OH	8,345	2,230	35.00%	75.00%	26.25%	2,190	585
67		Benefits OH	4,899	1	35.00%	75.00%	26.25%	1,286	0
68		**Substation Total**	**$22,797**	**$7,209**			**35.33%**	**$7,775**	**$2,826**
69		Direct Time	9,135	10,859	60.00%	75.00%	45.00%	4,111	4,887
70	Shared Services	Management OH	9,759	6,004	35.00%	75.00%	26.25%	2,562	1,576
71		Benefits OH	4,455	32	35.00%	75.00%	26.25%	1,170	8
72		**Shared Services Total**	**$23,350**	**$16,895**			**35.57%**	**$7,842**	**$6,471**
73		Direct Time	4,119	4,137	60.00%	75.00%	45.00%	1,853	1,862
74	Gas Transmission	Management OH	4,448	2,389	35.00%	75.00%	26.25%	1,168	627
75		Benefits OH	2,023	0	35.00%	75.00%	26.25%	531	0
76		**Gas Transmission Total**	**$10,590**	**$6,525**			**35.29%**	**$3,552**	**$2,489**
77		Direct Time	6,166	13,513	60.00%	75.00%	45.00%	2,775	6,081
78	Power Generation	Management OH	1,116	3,448	35.00%	75.00%	26.25%	293	905
79		Benefits OH	2,960	0	35.00%	75.00%	26.25%	777	0
80		**Power Generation Total**	**$10,242**	**$16,961**			**39.81%**	**$3,845**	**$6,986**
81		Direct Time	2,914	2,199	60.00%	75.00%	45.00%	1,311	989
82	Electric Transmission	Management OH	2,658	1,107	35.00%	75.00%	26.25%	698	290
83		Benefits OH	1,497	4	35.00%	75.00%	26.25%	393	1
84		**Electric Transmission Total**	**$7,069**	**$3,309**			**35.49%**	**$2,402**	**$1,281**
85		Direct Time	2,201	2,461	60.00%	75.00%	45.00%	990	1,107
86	Gas General	Management OH	2,340	1,428	35.00%	75.00%	26.25%	614	375
87		Benefits OH	1,100	1	35.00%	75.00%	26.25%	289	0
88		**Gas General Total**	**$5,640**	**$3,890**			**35.42%**	**$1,893**	**$1,482**
89		Direct Time	762	903	60.00%	75.00%	45.00%	343	406
90	Gas Facilities	Management OH	749	526	35.00%	75.00%	26.25%	197	138
91		Benefits OH	428	0	35.00%	75.00%	26.25%	112	0
92		**Gas Facilities Total**	**$1,939**	**$1,429**			**35.52%**	**$652**	**$544**
93		**TOTAL**	**$289,196**	**$143,595**			**35.69%**	**$98,549**	**$55,933**
94									
95	**PRE-EROSION NET BENEFIT**		**$98,549**	**$55,933**	**$154,483**				

Workpaper 3-11B
Pacific Gas and Electric Company
ERP and GIS Transformation
Field Technician - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Field Technician**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
96	Pre-Erosion Net	98,549	55,933	154,483
97	Erosion Factor	99.84%	99.84%	99.84%
98	Net Benefits	98,392	55,844	154,236
99	**NET BENEFIT (POST-EROSION)**	**$154,236**		
100	**Capital**	**$98,392**		**63.79%**
101	**Expense incl. NEE**	**$55,844**		**36.21%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
102	Release 1 Benefit	Jul 2027	Aug 2028	Jul 2030	$10,813	$3,838	$149
103	Release 2 Benefit	Mar 2029	Apr 2030	Mar 2032	$85,132	$56,341	$9,297
104	Release 3 Benefit	May 2030	Jun 2031	May 2033	$58,290	$38,213	$6,861
105	**Total**				**$154,236**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $10,813,114 = $563,183.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
106	Release 1 Ramp %	5.2%	47.9%	92.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
107	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
108	Release 1 Benefit	$563	$5,181	$10,025	$10,813	$10,813	$10,813	$10,813	$10,813	$10,813	$10,813	$10,813	$10,813
109	Release 2 Ramp %	0.0%	0.0%	15.6%	64.6%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
110	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
111	Release 2 Benefit	$0	$0	$13,302	$54,981	$84,246	$85,132	$85,132	$85,132	$85,132	$85,132	$85,132	$85,132
112	Release 3 Ramp %	0.0%	0.0%	0.0%	9.7%	56.3%	96.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
113	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
114	Release 3 Benefit	$0	$0	$0	$5,667	$32,788	$56,266	$58,290	$58,290	$58,290	$58,290	$58,290	$58,290
115	**Annual Benefit**	**$563**	**$5,181**	**$23,327**	**$71,462**	**$127,847**	**$152,212**	**$154,236**	**$154,236**	**$154,236**	**$154,236**	**$154,236**	**$154,236**
116	**CUMULATIVE**	**$563**	**$5,744**	**$29,071**	**$100,533**	**$228,380**	**$380,591**	**$534,827**	**$689,062**	**$843,298**	**$997,534**	**$1,151,769**	**$1,306,005**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
117	Capital Benefit	$200	$1,839	$12,362	$43,940	$81,087	$97,065	$98,392	$98,392	$98,392	$98,392	$98,392	$98,392
118	Expense Benefit	$356	$3,271	$9,374	$20,702	$33,553	$39,079	$39,538	$39,538	$39,538	$39,538	$39,538	$39,538
119	Non-earnings Expense Benefit	$8	$71	$1,590	$6,820	$13,208	$16,068	$16,306	$16,306	$16,306	$16,306	$16,306	$16,306
120	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
121	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
122	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
123	**Escalated Annual Benefit**	**$654**	**$6,198**	**$28,305**	**$88,271**	**$161,666**	**$197,464**	**$205,473**	**$211,036**	**$216,776**	**$222,688**	**$228,777**	**$235,048**
124	**Escalated Cumulative**	**$654**	**$6,852**	**$35,157**	**$123,428**	**$285,093**	**$482,558**	**$688,031**	**$899,067**	**$1,115,843**	**$1,338,531**	**$1,567,307**	**$1,802,355**

125	Peak annual Benefit, as modeled	154,236	The highest year on the Annual Benefit row above.
126	**Peak annual Benefit, escalated**	**$235,048**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
127	**Uplift on peak**	**52.40%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-11B
Pacific Gas and Electric Company
ERP and GIS Transformation
Field Technician - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Field Technician**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-11C
Pacific Gas and Electric Company
ERP and GIS Transformation
Crew Lead - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Crew Lead**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management (OH)**		**Benefits (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	22,974	8,014	22,226	4,093	11,511	369	56,712	12,475
2	Gas Distribution	3,794	5,532	4,128	3,073	1,816	2	9,737	8,607
3	Electric General	4,065	1,167	3,874	602	2,052	42	9,990	1,811
4	Substation	5,121	814	4,709	399	2,625	1	12,455	1,213
5	Shared Services	158	8,843	-11	551	78	1	225	9,394
6	Gas Transmission	1,467	89	1,589	52	744	0	3,801	141
7	Power Generation	743	1,976	163	520	358	0	1,263	2,495
8	Electric Transmission	930	506	842	258	478	0	2,249	764
9	**TOTAL**	**$39,251**	**$26,941**	**$37,519**	**$9,546**	**$19,662**	**$415**	**$96,433**	**$36,901**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions tab. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Benefit**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
10		Direct Time	22,974	8,014	35.00%	8,041	2,805
11	Electric Distribution	Management OH	22,226	4,093	35.00%	7,779	1,432
12		Benefits OH	11,511	369	35.00%	4,029	129
13		**Electric Distribution Total**	**$56,712**	**$12,475**	**35.00%**	**$19,849**	**$4,366**
14		Direct Time	3,794	5,532	20.00%	759	1,106
15	Gas Distribution	Management OH	4,128	3,073	20.00%	826	615
16		Benefits OH	1,816	2	20.00%	363	1
17		**Gas Distribution Total**	**$9,737**	**$8,607**	**20.00%**	**$1,947**	**$1,721**
18		Direct Time	4,065	1,167	32.18%	1,308	376
19	Electric General	Management OH	3,874	602	32.18%	1,247	194
20		Benefits OH	2,052	42	32.18%	660	13
21		**Electric General Total**	**$9,990**	**$1,811**	**32.18%**	**$3,215**	**$583**
22		Direct Time	5,121	814	20.00%	1,024	163
23	Substation	Management OH	4,709	399	20.00%	942	80
24		Benefits OH	2,625	1	20.00%	525	0
25		**Substation Total**	**$12,455**	**$1,213**	**20.00%**	**$2,491**	**$243**
26		Direct Time	158	8,843	29.06%	46	2,570
27	Shared Services	Management OH	-11	551	29.06%	6	180
28		Benefits OH	78	1	29.06%	23	0
29		**Shared Services Total**	**$225**	**$9,394**	**29.36%**	**$74**	**$2,750**
30		Direct Time	1,467	89	20.00%	293	18
31	Gas Transmission	Management OH	1,589	52	20.00%	318	10
32		Benefits OH	744	0	20.00%	149	0
33		**Gas Transmission Total**	**$3,801**	**$141**	**20.00%**	**$760**	**$28**
34		Direct Time	743	1,976	35.00%	260	691
35	Power Generation	Management OH	163	520	35.00%	57	186
36		Benefits OH	358	0	35.00%	125	0
37		**Power Generation Total**	**$1,263**	**$2,495**	**35.11%**	**$442**	**$877**
38		Direct Time	930	506	20.00%	186	101
39	Electric Transmission	Management OH	842	258	20.00%	168	51
40		Benefits OH	478	0	20.00%	96	0
41		**Electric Transmission Total**	**$2,249**	**$764**	**19.98%**	**$450**	**$152**
42		**TOTAL**	**$96,433**	**$36,901**	**29.96%**	**$29,229**	**$10,721**

Workpaper 3-11C
Pacific Gas and Electric Company
ERP and GIS Transformation
Crew Lead - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Crew Lead**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough

			A		*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total			**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**		**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
43		Direct Time	8,041		2,805	60.00%	75.00%	45.00%	3,618	1,262
44	Electric Distribution	Management OH	7,779		1,432	35.00%	75.00%	26.25%	2,042	376
45		Benefits OH	4,029		129	35.00%	75.00%	26.25%	1,058	34
46		**Electric Distribution Total**	**$19,849**		**$4,366**			**34.65%**	**$6,718**	**$1,672**
47		Direct Time	759		1,106	60.00%	75.00%	45.00%	341	498
48	Gas Distribution	Management OH	826		615	35.00%	75.00%	26.25%	217	161
49		Benefits OH	363		1	35.00%	75.00%	26.25%	95	0
50		**Gas Distribution Total**	**$1,947**		**$1,721**			**35.78%**	**$653**	**$659**
51		Direct Time	1,308		376	60.00%	75.00%	45.00%	589	169
52	Electric General	Management OH	1,247		194	35.00%	75.00%	26.25%	327	51
53		Benefits OH	660		13	35.00%	75.00%	26.25%	173	4
54		**Electric General Total**	**$3,215**		**$583**			**34.56%**	**$1,089**	**$223**
55		Direct Time	1,024		163	60.00%	75.00%	45.00%	461	73
56	Substation	Management OH	942		80	35.00%	75.00%	26.25%	247	21
57		Benefits OH	525		0	35.00%	75.00%	26.25%	138	0
58		**Substation Total**	**$2,491**		**$243**			**34.39%**	**$846**	**$94**
59		Direct Time	46		2,570	60.00%	75.00%	45.00%	21	1,157
60	Shared Services	Management OH	6		180	35.00%	75.00%	26.25%	1	47
61		Benefits OH	23		0	35.00%	75.00%	26.25%	6	0
62		**Shared Services Total**	**$74**		**$2,750**			**43.62%**	**$28**	**$1,204**
63		Direct Time	293		18	60.00%	75.00%	45.00%	132	8
64	Gas Transmission	Management OH	318		10	35.00%	75.00%	26.25%	83	3
65		Benefits OH	149		0	35.00%	75.00%	26.25%	39	0
66		**Gas Transmission Total**	**$760**		**$28**			**33.65%**	**$255**	**$11**
67		Direct Time	260		691	60.00%	75.00%	45.00%	117	311
68	Power Generation	Management OH	57		186	35.00%	75.00%	26.25%	15	49
69		Benefits OH	125		0	35.00%	75.00%	26.25%	33	0
70		**Power Generation Total**	**$442**		**$877**			**39.77%**	**$165**	**$360**
71		Direct Time	186		101	60.00%	75.00%	45.00%	84	45
72	Electric Transmission	Management OH	168		51	35.00%	75.00%	26.25%	44	13
73		Benefits OH	96		0	35.00%	75.00%	26.25%	25	0
74		**Electric Transmission Total**	**$450**		**$152**			**35.18%**	**$153**	**$59**
75		**TOTAL**	**$29,229**		**$10,721**			**35.52%**	**$9,907**	**$4,282**
76	**PRE-EROSION NET BENEFIT**		**$9,907**		**$4,282**	**$14,190**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
77	Pre-Erosion Net	9,907	4,282	14,190
78	Erosion Factor	99.84%	99.84%	99.84%
79	Net Benefits	9,891	4,276	14,167
80	**NET BENEFIT (POST-EROSION)**	**$14,167**		
81	**Capital**	**$9,891**		**69.82%**
82	**Expense incl. NEE**	**$4,276**		**30.18%**

Workpaper 3-11C
Pacific Gas and Electric Company
ERP and GIS Transformation
Crew Lead - Work Efficiency Internal Labor Benefit Walkthrough
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Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Crew Lead**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
83	Release 1 Benefit	Jul 2027	Aug 2028	Jul 2030	$524	$165	$22
84	Release 2 Benefit	Mar 2029	Apr 2030	Mar 2032	$9,687	$7,360	$1,192
85	Release 3 Benefit	May 2030	Jun 2031	May 2033	$3,956	$2,367	$1,464
86	**Total**				**$14,167**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $523,909 = $27,287.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
87	Release 1 Ramp %	5.2%	47.9%	92.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
88	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
89	Release 1 Benefit	$27	$251	$486	$524	$524	$524	$524	$524	$524	$524	$524	$524
90	Release 2 Ramp %	0.0%	0.0%	15.6%	64.6%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
91	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
92	Release 2 Benefit	$0	$0	$1,514	$6,256	$9,587	$9,687	$9,687	$9,687	$9,687	$9,687	$9,687	$9,687
93	Release 3 Ramp %	0.0%	0.0%	0.0%	9.7%	56.3%	96.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
94	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
95	Release 3 Benefit	$0	$0	$0	$385	$2,225	$3,818	$3,956	$3,956	$3,956	$3,956	$3,956	$3,956
96	**Annual Benefit**	**$27**	**$251**	**$1,999**	**$7,165**	**$12,336**	**$14,030**	**$14,167**	**$14,167**	**$14,167**	**$14,167**	**$14,167**	**$14,167**
97	**CUMULATIVE**	**$27**	**$278**	**$2,278**	**$9,443**	**$21,778**	**$35,808**	**$49,975**	**$64,142**	**$78,309**	**$92,476**	**$106,643**	**$120,810**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
98	Capital Benefit	$9	$79	$1,303	$5,148	$8,779	$9,809	$9,891	$9,891	$9,891	$9,891	$9,891	$9,891
99	Expense Benefit	$18	$162	$490	$1,082	$1,531	$1,593	$1,597	$1,597	$1,597	$1,597	$1,597	$1,597
100	Non-earnings Expense Benefit	$1	$11	$207	$935	$2,026	$2,628	$2,679	$2,679	$2,679	$2,679	$2,679	$2,679
101	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
102	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
103	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
104	**Escalated Annual Benefit**	**$32**	**$301**	**$2,399**	**$8,748**	**$15,441**	**$18,034**	**$18,683**	**$19,169**	**$19,669**	**$20,184**	**$20,713**	**$21,258**
105	**Escalated Cumulative**	**$32**	**$333**	**$2,732**	**$11,480**	**$26,921**	**$44,954**	**$63,638**	**$82,806**	**$102,476**	**$122,659**	**$143,372**	**$164,630**

106	Peak annual Benefit, as modeled	14,167	The highest year on the Annual Benefit row above.
107	**Peak annual Benefit, escalated**	**$21,258**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
108	**Uplift on peak**	**50.05%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-11C
Pacific Gas and Electric Company
ERP and GIS Transformation
Crew Lead - Work Efficiency Internal Labor Benefit Walkthrough
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Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Crew Lead**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-11D
Pacific Gas and Electric Company
ERP and GIS Transformation
Work Coordinator - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Work Coordinator**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management (OH)**		**Benefits (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	1,199	1,031	1,240	508	600	27	3,039	1,565
2	Gas Distribution	11,103	522	11,860	289	5,196	2	28,159	813
3	Electric General	117	241	108	120	59	3	284	365
4	Shared Services	194	1,246	185	331	96	0	476	1,576
5	Gas Transmission	4,622	2,544	4,862	1,490	2,294	0	11,778	4,034
6	Power Generation	24	97	4	107	12	0	40	204
7	Electric Transmission	632	92	575	46	329	0	1,537	138
8	Gas General	2,876	783	3,106	457	1,375	0	7,358	1,240
9	**TOTAL**	**$20,768**	**$6,555**	**$21,940**	**$3,349**	**$9,961**	**$32**	**$52,669**	**$9,936**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions tab. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Benefit**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
10		Direct Time	1,199	1,031	20.00%	240	206
11	Electric Distribution	Management OH	1,240	508	20.00%	248	102
12		Benefits OH	600	27	20.00%	120	5
13		**Electric Distribution Total**	**$3,039**	**$1,565**	**20.00%**	**$608**	**$313**
14		Direct Time	11,103	522	20.00%	2,221	104
15	Gas Distribution	Management OH	11,860	289	20.00%	2,372	58
16		Benefits OH	5,196	2	20.00%	1,039	0
17		**Gas Distribution Total**	**$28,159**	**$813**	**20.00%**	**$5,632**	**$163**
18		Direct Time	117	241	20.00%	23	48
19	Electric General	Management OH	108	120	20.00%	22	24
20		Benefits OH	59	3	20.00%	12	1
21		**Electric General Total**	**$284**	**$365**	**20.00%**	**$57**	**$73**
22		Direct Time	194	1,246	20.00%	39	249
23	Shared Services	Management OH	185	331	20.00%	37	66
24		Benefits OH	96	0	20.00%	19	0
25		**Shared Services Total**	**$476**	**$1,576**	**20.00%**	**$95**	**$315**
26		Direct Time	4,622	2,544	20.00%	924	509
27	Gas Transmission	Management OH	4,862	1,490	20.00%	972	298
28		Benefits OH	2,294	0	20.00%	459	0
29		**Gas Transmission Total**	**$11,778**	**$4,034**	**20.00%**	**$2,356**	**$807**
30		Direct Time	24	97	20.00%	5	19
31	Power Generation	Management OH	4	107	20.00%	1	21
32		Benefits OH	12	0	20.00%	2	0
33		**Power Generation Total**	**$40**	**$204**	**20.00%**	**$8**	**$41**
34		Direct Time	632	92	20.00%	126	18
35	Electric Transmission	Management OH	575	46	20.00%	115	9
36		Benefits OH	329	0	20.00%	66	0
37		**Electric Transmission Total**	**$1,537**	**$138**	**20.00%**	**$307**	**$28**
38		Direct Time	2,876	783	20.00%	575	157
39	Gas General	Management OH	3,106	457	20.00%	621	92
40		Benefits OH	1,375	0	20.00%	275	0
41		**Gas General Total**	**$7,358**	**$1,240**	**20.00%**	**$1,472**	**$248**
42		**TOTAL**	**$52,669**	**$9,936**	**20.00%**	**$10,534**	**$1,987**

Workpaper 3-11D
Pacific Gas and Electric Company
ERP and GIS Transformation
Work Coordinator - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Work Coordinator**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
43		Direct Time	240	206	60.00%	75.00%	45.00%	108	93
44	Electric Distribution	Management OH	248	102	35.00%	75.00%	26.25%	65	27
45		Benefits OH	120	5	35.00%	75.00%	26.25%	31	1
46		**Electric Distribution Total**	**$608**	**$313**			**35.33%**	**$204**	**$121**
47		Direct Time	2,221	104	60.00%	75.00%	45.00%	999	47
48	Gas Distribution	Management OH	2,372	58	35.00%	75.00%	26.25%	623	15
49		Benefits OH	1,039	0	35.00%	75.00%	26.25%	273	0
50		**Gas Distribution Total**	**$5,632**	**$163**			**33.77%**	**$1,895**	**$62**
51		Direct Time	23	48	60.00%	75.00%	45.00%	11	22
52	Electric General	Management OH	22	24	35.00%	75.00%	26.25%	6	6
53		Benefits OH	12	1	35.00%	75.00%	26.25%	3	0
54		**Electric General Total**	**$57**	**$73**			**36.59%**	**$19**	**$28**
55		Direct Time	39	249	60.00%	75.00%	45.00%	17	112
56	Shared Services	Management OH	37	66	35.00%	75.00%	26.25%	10	17
57		Benefits OH	19	0	35.00%	75.00%	26.25%	5	0
58		**Shared Services Total**	**$95**	**$315**			**39.41%**	**$32**	**$129**
59		Direct Time	924	509	60.00%	75.00%	45.00%	416	229
60	Gas Transmission	Management OH	972	298	35.00%	75.00%	26.25%	255	78
61		Benefits OH	459	0	35.00%	75.00%	26.25%	120	0
62		**Gas Transmission Total**	**$2,356**	**$807**			**34.75%**	**$792**	**$307**
63		Direct Time	5	19	60.00%	75.00%	45.00%	2	9
64	Power Generation	Management OH	1	21	35.00%	75.00%	26.25%	0	6
65		Benefits OH	2	0	35.00%	75.00%	26.25%	1	0
66		**Power Generation Total**	**$8**	**$41**			**35.56%**	**$3**	**$14**
67		Direct Time	126	18	60.00%	75.00%	45.00%	57	8
68	Electric Transmission	Management OH	115	9	35.00%	75.00%	26.25%	30	2
69		Benefits OH	66	0	35.00%	75.00%	26.25%	17	0
70		**Electric Transmission Total**	**$307**	**$28**			**34.36%**	**$104**	**$11**
71		Direct Time	575	157	60.00%	75.00%	45.00%	259	70
72	Gas General	Management OH	621	92	35.00%	75.00%	26.25%	163	24
73		Benefits OH	275	0	35.00%	75.00%	26.25%	72	0
74		**Gas General Total**	**$1,472**	**$248**			**34.23%**	**$494**	**$94**
75		**TOTAL**	**$10,534**	**$1,987**			**34.43%**	**$3,544**	**$767**
76	**PRE-EROSION NET BENEFIT**		**$3,544**	**$767**	**$4,311**				

Workpaper 3-11D
Pacific Gas and Electric Company
ERP and GIS Transformation
Work Coordinator - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Work Coordinator**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
77	Pre-Erosion Net	3,544	767	4,311
78	Erosion Factor	99.84%	99.84%	99.84%
79	Net Benefits	3,538	766	4,304
80	**NET BENEFIT (POST-EROSION)**	**$4,304**		
81	**Capital**	**$3,538**		**82.20%**
82	**Expense incl. NEE**	**$766**		**17.80%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
83	Release 1 Benefit	Jul 2027	Aug 2028	Jul 2030	$17	$3	$0
84	Release 2 Benefit	Mar 2029	Apr 2030	Mar 2032	$2,279	$2,096	$104
85	Release 3 Benefit	May 2030	Jun 2031	May 2033	$2,009	$1,439	$329
86	**Total**				**$4,304**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $17,334 = $903.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
87	Release 1 Ramp %	5.2%	47.9%	92.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
88	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
89	Release 1 Benefit	$1	$8	$16	$17	$17	$17	$17	$17	$17	$17	$17	$17
90	Release 2 Ramp %	0.0%	0.0%	15.6%	64.6%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
91	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
92	Release 2 Benefit	$0	$0	$356	$1,472	$2,255	$2,279	$2,279	$2,279	$2,279	$2,279	$2,279	$2,279
93	Release 3 Ramp %	0.0%	0.0%	0.0%	9.7%	56.3%	96.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
94	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
95	Release 3 Benefit	$0	$0	$0	$195	$1,130	$1,939	$2,009	$2,009	$2,009	$2,009	$2,009	$2,009
96	**Annual Benefit**	**$1**	**$8**	**$372**	**$1,684**	**$3,402**	**$4,235**	**$4,304**	**$4,304**	**$4,304**	**$4,304**	**$4,304**	**$4,304**
97	**CUMULATIVE**	**$1**	**$9**	**$381**	**$2,066**	**$5,468**	**$9,702**	**$14,007**	**$18,311**	**$22,616**	**$26,920**	**$31,225**	**$35,529**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
98	Capital Benefit	$0	$1	$330	$1,497	$2,887	$3,488	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538
99	Expense Benefit	$1	$7	$25	$88	$227	$324	$333	$333	$333	$333	$333	$333
100	Non-earnings Expense Benefit	$0	$0	$16	$99	$288	$422	$434	$434	$434	$434	$434	$434
101	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
102	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
103	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
104	**Escalated Annual Benefit**	**$1**	**$10**	**$437**	**$2,017**	**$4,181**	**$5,341**	**$5,558**	**$5,690**	**$5,825**	**$5,964**	**$6,106**	**$6,252**
105	**Escalated Cumulative**	**$1**	**$11**	**$448**	**$2,465**	**$6,646**	**$11,987**	**$17,546**	**$23,235**	**$29,060**	**$35,024**	**$41,129**	**$47,381**

106	Peak annual Benefit, as modeled	4,304	The highest year on the Annual Benefit row above.
107	**Peak annual Benefit, escalated**	**$6,252**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
108	**Uplift on peak**	**45.24%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-11D
Pacific Gas and Electric Company
ERP and GIS Transformation
Work Coordinator - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Work Coordinator**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-11E
Pacific Gas and Electric Company
ERP and GIS Transformation
Scheduler - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Scheduler**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management (OH)**		**Benefits (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	11	7	9	2	5	0	25	9
2	Electric General	96	14	113	7	48	0	257	21
3	Shared Services	7	613	4	359	3	0	14	973
4	**TOTAL**	**$114**	**$634**	**$125**	**$369**	**$57**	**$0**	**$296**	**$1,002**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions tab. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Benefit**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
5		Direct Time	11	7	5.00%	1	0
6	Electric Distribution	Management OH	9	2	5.00%	0	0
7		Benefits OH	5	0	5.00%	0	0
8		**Electric Distribution Total**	**$25**	**$9**	**5.05%**	**$1**	**$0**
9		Direct Time	96	14	5.00%	5	1
10	Electric General	Management OH	113	7	5.00%	6	0
11		Benefits OH	48	0	5.00%	2	0
12		**Electric General Total**	**$257**	**$21**	**5.00%**	**$13**	**$1**
13		Direct Time	7	613	1.98%	0	12
14	Shared Services	Management OH	4	359	1.98%	0	7
15		Benefits OH	3	0	1.98%	0	0
16		**Shared Services Total**	**$14**	**$973**	**1.98%**	**$0**	**$19**
17		**TOTAL**	**$296**	**$1,002**	**2.71%**	**$14**	**$21**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
18		Direct Time	1	0	60.00%	75.00%	45.00%	0	0
19	Electric Distribution	Management OH	0	0	35.00%	75.00%	26.25%	0	0
20		Benefits OH	0	0	35.00%	75.00%	26.25%	0	0
21		**Electric Distribution Total**	**$1**	**$0**			**35.86%**	**$0**	**$0**
22		Direct Time	5	1	60.00%	75.00%	45.00%	2	0
23	Electric General	Management OH	6	0	35.00%	75.00%	26.25%	1	0
24		Benefits OH	2	0	35.00%	75.00%	26.25%	1	0
25		**Electric General Total**	**$13**	**$1**			**33.67%**	**$4**	**$0**
26		Direct Time	0	12	60.00%	75.00%	45.00%	0	5
27	Shared Services	Management OH	0	7	35.00%	75.00%	26.25%	0	2
28		Benefits OH	0	0	35.00%	75.00%	26.25%	0	0
29		**Shared Services Total**	**$0**	**$19**			**38.01%**	**$0**	**$7**
30		**TOTAL**	**$14**	**$21**			**36.19%**	**$5**	**$8**
31	**PRE-EROSION NET BENEFIT**		**$5**	**$8**	**$13**				

Workpaper 3-11E
Pacific Gas and Electric Company
ERP and GIS Transformation
Scheduler - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Scheduler**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
32	Pre-Erosion Net	5	8	13
33	Erosion Factor	99.84%	99.84%	99.84%
34	Net Benefits	5	8	13
35	**NET BENEFIT (POST-EROSION)**	**$13**		
36	**Capital**	**$5**		**37.79%**
37	**Expense incl. NEE**	**$8**		**62.21%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
38	Release 2 Benefit	Mar 2029	Apr 2030	Mar 2032	$1	$0	$0
39	Release 3 Benefit	May 2030	Jun 2031	May 2033	$12	$4	$0
40	**Total**				**$13**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Mar 2029, so 2030 earns nothing until April, then 1/24, 2/24 and so on up to 9/24 through December: (1+2+…+9) / 24 / 12 = 15.6%, and 15.6% × $616 = $96.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
41	Release 2 Ramp %	0.0%	0.0%	15.6%	64.6%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
42	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
43	Release 2 Benefit	$0	$0	$0	$0	$1	$1	$1	$1	$1	$1	$1	$1
44	Release 3 Ramp %	0.0%	0.0%	0.0%	9.7%	56.3%	96.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
45	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
46	Release 3 Benefit	$0	$0	$0	$1	$7	$12	$12	$12	$12	$12	$12	$12
47	**Annual Benefit**	**$0**	**$0**	**$0**	**$2**	**$7**	**$12**	**$13**	**$13**	**$13**	**$13**	**$13**	**$13**
48	**CUMULATIVE**	**$0**	**$0**	**$0**	**$2**	**$9**	**$21**	**$34**	**$47**	**$59**	**$72**	**$85**	**$98**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
49	Capital Benefit	$0	$0	$0	$1	$3	$5	$5	$5	$5	$5	$5	$5
50	Expense Benefit	$0	$0	$0	$1	$4	$7	$8	$8	$8	$8	$8	$8
51	Non-earnings Expense Benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
52	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
53	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
54	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
55	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$2**	**$10**	**$17**	**$18**	**$18**	**$19**	**$19**	**$20**	**$21**
56	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$2**	**$12**	**$28**	**$46**	**$64**	**$83**	**$102**	**$122**	**$143**

57	Peak annual Benefit, as modeled	13	The highest year on the Annual Benefit row above.
58	**Peak annual Benefit, escalated**	**$21**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
59	**Uplift on peak**	**62.50%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-11E
Pacific Gas and Electric Company
ERP and GIS Transformation
Scheduler - Work Efficiency Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Work Efficiency
Role	**Scheduler**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-12
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Expansion of Compatible Units

WP#	Workpaper Name
	Summary WPs
3-12	Testimony Table
3-12A	Expansion of Compatible Units Summary
	Detail Role WPs
3-12B	Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
3-12C	Associate Distribution Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
3-12D	Maintenance - Expansion of Compatible Units Internal Labor Benefit Walkthrough
3-12E	External Labor - Expansion of Compatible Units Internal Labor Benefit Walkthrough
	Assumptions & Reference Rates WPs
3-12F	Assumptions & Reference Rates - Expansion of Compatible Units Internal Labor
3-12G	Assumptions & Reference Rates - Expansion of Compatible Units External Labor

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-37
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$6,434.7**

Workpaper 3-12A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Expansion of Compatible Units
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Calculation Method	Role-based

DEFINITION

Internal and external efficiencies applied to specific roles using templatized construction documentation and standardized work requirements to accelerate engineering throughput. Compatible Units and Task Lists provide pre-built templates for materials, labor, and design steps, so engineers spend less time building work packages from scratch and more time executing. Standardized EAM checklists across all lines of business automate the link between field inspection data and follow-on work creation.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Engineer	$6,566	$6,304	$12,869	$10,332	$9,920	$20,252
2	Associate Distribution Engineer	$2,108	$346	$2,454	$3,032	$498	$3,529
3	Maintenance Engineer	$235	$4	$239	$327	$6	$332
4	**Subtotal: Internal Labor**	**$8,909**	**$6,654**	**$15,563**	**$13,690**	**$10,423**	**$24,113**
5	**External Labor**	**$2,836**	**$1,173**	**$4,009**	**$3,932**	**$1,626**	**$5,558**
6	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
7	**TOTAL VALUE DRIVER BENEFIT**	**$11,745**	**$7,827**	**$19,572**	**$17,622**	**$12,049**	**$29,672**
8	**Peak Annual Benefit, Un-escalated**	**$19,572**					
9	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
10	Internal labor - Engineer	$37	$344	$970	$2,968	$8,385	$12,515	$12,869	$12,869	$12,869	$12,869	$12,869	$12,869	$102,436
11	Internal labor - Associate Distribution Engineer	$0	$0	$342	$1,441	$2,316	$2,445	$2,454	$2,454	$2,454	$2,454	$2,454	$2,454	$21,271
12	Internal labor - Maintenance Engineer	$0	$0	$0	$23	$135	$231	$239	$239	$239	$239	$239	$239	$1,824
13	**Subtotal: Internal Labor**	**$37**	**$344**	**$1,312**	**$4,432**	**$10,836**	**$15,191**	**$15,563**	**$15,563**	**$15,563**	**$15,563**	**$15,563**	**$15,563**	**$125,531**
14	External labor	$85	$780	$1,881	$3,165	$3,984	$4,009	$4,009	$4,009	$4,009	$4,009	$4,009	$4,009	$37,956
15	**TOTAL: ALL COMPONENTS**	**$122**	**$1,124**	**$3,193**	**$7,597**	**$14,820**	**$19,200**	**$19,572**	**$19,572**	**$19,572**	**$19,572**	**$19,572**	**$19,572**	**$163,486**
16	Capital	$71	$655	$2,011	$4,987	$9,238	$11,550	$11,745	$11,745	$11,745	$11,745	$11,745	$11,745	$98,982
17	Expense incl. NEE	$51	$469	$1,182	$2,610	$5,582	$7,650	$7,827	$7,827	$7,827	$7,827	$7,827	$7,827	$64,504
18	**CUMULATIVE**	**$122**	**$1,246**	**$4,438**	**$12,036**	**$26,856**	**$46,056**	**$65,627**	**$85,199**	**$104,771**	**$124,343**	**$143,914**	**$163,486**	
19	**CUMULATIVE BENEFITS**	**$163,486**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
20	Internal labor - Engineer	$43	$401	$1,165	$3,700	$10,773	$16,545	$17,510	$18,024	$18,555	$19,103	$19,668	$20,252	$145,737
21	Internal labor - Associate Distribution Engineer	$0	$0	$402	$1,729	$2,841	$3,067	$3,149	$3,221	$3,295	$3,372	$3,449	$3,529	$28,056
22	Internal labor - Maintenance Engineer	$0	$0	$0	$28	$162	$284	$300	$306	$313	$319	$326	$332	$2,371
23	External labor	$94	$883	$2,172	$3,730	$4,789	$4,916	$5,018	$5,121	$5,227	$5,335	$5,446	$5,558	$48,287
24	**TOTAL, ALL COMPONENTS, ESCALATED**	**$137**	**$1,284**	**$3,740**	**$9,186**	**$18,566**	**$24,812**	**$25,977**	**$26,673**	**$27,390**	**$28,128**	**$28,889**	**$29,672**	**$224,452**
25	Capital	$80	$748	$2,335	$5,896	$11,122	$14,173	$14,701	$14,997	$15,300	$15,609	$15,924	$16,246	$127,130
26	Expense incl. NEE	$57	$536	$1,404	$3,290	$7,443	$10,638	$11,276	$11,676	$12,090	$12,520	$12,965	$13,426	$97,322
27	**CUMULATIVE, ESCALATED**	**$137**	**$1,420**	**$5,160**	**$14,346**	**$32,912**	**$57,724**	**$83,701**	**$110,373**	**$137,763**	**$165,892**	**$194,781**	**$224,452**	

Workpaper 3-12B
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Engineer**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$2,900	$7,604	$2,919	$3,756	$1,471	$106	$7,290	$11,467
2	Gas Distribution	$3,260	$3,716	$3,512	$1,961	$1,571	$0	$8,343	$5,677
3	Electric General	$15,294	$19,658	$13,335	$8,483	$7,797	$22	$36,426	$28,163
4	Substation	$6,785	$3,615	$6,263	$1,739	$3,487	$0	$16,535	$5,354
5	Shared Services	$3,076	$8,776	$2,416	$3,371	$1,531	$0	$7,022	$12,147
6	Gas Transmission	$3,063	$4,968	$3,379	$2,861	$1,481	$0	$7,924	$7,830
7	Power Generation	$5,131	$1,791	$886	$1,469	$2,424	$0	$8,441	$3,259
8	Electric Transmission	$830	$3,882	$764	$3,967	$431	$0	$2,025	$7,849
9	Gas General	$2,415	$4,254	$2,643	$2,421	$1,207	$0	$6,265	$6,675
10	Gas Facilities	$4,410	$4,267	$4,579	$2,280	$2,393	$0	$11,382	$6,546
11	**TOTAL**	**$47,163**	**$62,531**	**$40,697**	**$32,309**	**$23,794**	**$128**	**$111,654**	**$94,969**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
12		Direct Time	$2,900	$7,604	20.00%	$580	$1,521
13	Electric Distribution	Management OH	$2,919	$3,756	20.00%	$584	$751
14		Benefits OH	$1,471	$106	20.00%	$294	$21
15		**Electric Distribution Total**	**$7,290**	**$11,467**	**20.00%**	**$1,458**	**$2,293**
16		Direct Time	$3,260	$3,716	20.00%	$652	$743
17	Gas Distribution	Management OH	$3,512	$1,961	20.00%	$702	$392
18		Benefits OH	$1,571	$0	20.00%	$314	$0
19		**Gas Distribution Total**	**$8,343**	**$5,677**	**20.00%**	**$1,669**	**$1,135**
20		Direct Time	$15,294	$19,658	20.00%	$3,059	$3,932
21	Electric General	Management OH	$13,335	$8,483	20.00%	$2,667	$1,697
22		Benefits OH	$7,797	$22	20.00%	$1,559	$4
23		**Electric General Total**	**$36,426**	**$28,163**	**20.00%**	**$7,285**	**$5,633**
24		Direct Time	$6,785	$3,615	20.00%	$1,357	$723
25	Substation	Management OH	$6,263	$1,739	20.00%	$1,253	$348
26		Benefits OH	$3,487	$0	20.00%	$697	$0
27		**Substation Total**	**$16,535**	**$5,354**	**20.00%**	**$3,307**	**$1,071**
28		Direct Time	$3,076	$8,776	20.00%	$615	$1,755
29	Shared Services	Management OH	$2,416	$3,371	20.00%	$484	$682
30		Benefits OH	$1,531	$0	20.00%	$306	$0
31		**Shared Services Total**	**$7,022**	**$12,147**	**20.04%**	**$1,405**	**$2,437**
32		Direct Time	$3,063	$4,968	20.00%	$613	$994
33	Gas Transmission	Management OH	$3,379	$2,861	20.00%	$676	$572
34		Benefits OH	$1,481	$0	20.00%	$296	$0
35		**Gas Transmission Total**	**$7,924**	**$7,830**	**20.00%**	**$1,585**	**$1,566**
36		Direct Time	$5,131	$1,791	20.00%	$1,026	$358
37	Power Generation	Management OH	$886	$1,469	20.00%	$178	$298
38		Benefits OH	$2,424	$0	20.00%	$485	$0
39		**Power Generation Total**	**$8,441**	**$3,259**	**20.04%**	**$1,689**	**$656**
40		Direct Time	$830	$3,882	20.00%	$166	$776
41	Electric Transmission	Management OH	$764	$3,967	20.00%	$153	$793
42		Benefits OH	$431	$0	20.00%	$86	$0
43		**Electric Transmission Total**	**$2,025**	**$7,849**	**20.00%**	**$405**	**$1,570**
44		Direct Time	$2,415	$4,254	20.00%	$483	$851
45	Gas General	Management OH	$2,643	$2,421	20.00%	$529	$484
46		Benefits OH	$1,207	$0	20.00%	$241	$0
47		**Gas General Total**	**$6,265**	**$6,675**	**20.00%**	**$1,253**	**$1,335**
48		Direct Time	$4,410	$4,267	20.00%	$882	$853
49	Gas Facilities	Management OH	$4,579	$2,280	20.00%	$916	$456
50		Benefits OH	$2,393	$0	20.00%	$479	$0
51		**Gas Facilities Total**	**$11,382**	**$6,546**	**20.00%**	**$2,276**	**$1,309**
52		**TOTAL**	**$111,654**	**$94,969**	**20.01%**	**$22,332**	**$19,005**

Workpaper 3-12B
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Engineer**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*		*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total			**Realization Rate**	**Exclusivity**	**onfidence Fact**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**		**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
53		Direct Time	$580		$1,521	60.00%	75.00%	45.00%	$261	$684
54	Electric Distribution	Management OH	$584		$751	35.00%	75.00%	26.25%	$153	$197
55		Benefits OH	$294		$21	35.00%	75.00%	26.25%	$77	$6
56		**Electric Distribution Total**	**$1,458**		**$2,293**			**36.75%**	**$491**	**$887**
57		Direct Time	$652		$743	60.00%	75.00%	45.00%	$293	$334
58	Gas Distribution	Management OH	$702		$392	35.00%	75.00%	26.25%	$184	$103
59		Benefits OH	$314		$0	35.00%	75.00%	26.25%	$82	$0
60		**Gas Distribution Total**	**$1,669**		**$1,135**			**35.58%**	**$560**	**$437**
61		Direct Time	$3,059		$3,932	60.00%	75.00%	45.00%	$1,376	$1,769
62	Electric General	Management OH	$2,667		$1,697	35.00%	75.00%	26.25%	$700	$445
63		Benefits OH	$1,559		$4	35.00%	75.00%	26.25%	$409	$1
64		**Electric General Total**	**$7,285**		**$5,633**			**36.40%**	**$2,486**	**$2,216**
65		Direct Time	$1,357		$723	60.00%	75.00%	45.00%	$611	$325
66	Substation	Management OH	$1,253		$348	35.00%	75.00%	26.25%	$329	$91
67		Benefits OH	$697		$0	35.00%	75.00%	26.25%	$183	$0
68		**Substation Total**	**$3,307**		**$1,071**			**35.16%**	**$1,123**	**$417**
69		Direct Time	$615		$1,755	60.00%	75.00%	45.00%	$277	$790
70	Shared Services	Management OH	$484		$682	35.00%	75.00%	26.25%	$127	$179
71		Benefits OH	$306		$0	35.00%	75.00%	26.25%	$80	$0
72		**Shared Services Total**	**$1,405**		**$2,437**			**37.82%**	**$484**	**$969**
73		Direct Time	$613		$994	60.00%	75.00%	45.00%	$276	$447
74	Gas Transmission	Management OH	$676		$572	35.00%	75.00%	26.25%	$177	$150
75		Benefits OH	$296		$0	35.00%	75.00%	26.25%	$78	$0
76		**Gas Transmission Total**	**$1,585**		**$1,566**			**35.81%**	**$531**	**$597**
77		Direct Time	$1,026		$358	60.00%	75.00%	45.00%	$462	$161
78	Power Generation	Management OH	$178		$298	35.00%	75.00%	26.25%	$47	$78
79		Benefits OH	$485		$0	35.00%	75.00%	26.25%	$127	$0
80		**Power Generation Total**	**$1,689**		**$656**			**37.32%**	**$636**	**$239**
81		Direct Time	$166		$776	60.00%	75.00%	45.00%	$75	$349
82	Electric Transmission	Management OH	$153		$793	35.00%	75.00%	26.25%	$40	$208
83		Benefits OH	$86		$0	35.00%	75.00%	26.25%	$23	$0
84		**Electric Transmission Total**	**$405**		**$1,570**			**35.20%**	**$137**	**$558**
85		Direct Time	$483		$851	60.00%	75.00%	45.00%	$217	$383
86	Gas General	Management OH	$529		$484	35.00%	75.00%	26.25%	$139	$127
87		Benefits OH	$241		$0	35.00%	75.00%	26.25%	$63	$0
88		**Gas General Total**	**$1,253**		**$1,335**			**35.91%**	**$419**	**$510**
89		Direct Time	$882		$853	60.00%	75.00%	45.00%	$397	$384
90	Gas Facilities	Management OH	$916		$456	35.00%	75.00%	26.25%	$240	$120
91		Benefits OH	$479		$0	35.00%	75.00%	26.25%	$126	$0
92		**Gas Facilities Total**	**$2,276**		**$1,309**			**35.32%**	**$763**	**$504**
93		**TOTAL**	**$22,332**		**$19,005**			**36.20%**	**$7,631**	**$7,334**
94	**PRE-EROSION NET BENEFIT**		**$7,631**		**$7,334**	**$14,965**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
95	Pre-Erosion Net	$7,631	$7,334	$14,965
96	Erosion Factor	86.04%	85.95%	86.00%
97	Net Benefits	$6,566	$6,304	$12,869
98	**NET BENEFIT (POST-EROSION)**	**$12,869**		
99	**Capital**	**$6,566**		**51.02%**
100	**Expense incl. NEE**	**$6,304**		**48.98%**

Workpaper 3-12B
Pacific Gas and Electric Company
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Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Engineer**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
101	Release 1	Jul 2027	Aug 2028	Jul 2030	$718	$521	$25
102	Release 2	Mar 2029	Apr 2030	Mar 2032	$1,949	$862	$206
103	Release 3	May 2030	Jun 2031	May 2033	$10,203	$5,182	$2,800
104	**Total**				**$12,869**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $717,647 = $37,377.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
105	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
106	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
107	Release 1	$37	$344	$665	$718	$718	$718	$718	$718	$718	$718	$718	$718
108	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
109	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
110	Release 2	$0	$0	$304	$1,258	$1,928	$1,949	$1,949	$1,949	$1,949	$1,949	$1,949	$1,949
111	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
112	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
113	Release 3	$0	$0	$0	$992	$5,739	$9,849	$10,203	$10,203	$10,203	$10,203	$10,203	$10,203
114	**Annual Benefit**	**$37**	**$344**	**$970**	**$2,968**	**$8,385**	**$12,515**	**$12,869**	**$12,869**	**$12,869**	**$12,869**	**$12,869**	**$12,869**
115	**CUMULATIVE**	**$37**	**$381**	**$1,351**	**$4,319**	**$12,704**	**$25,219**	**$38,089**	**$50,958**	**$63,827**	**$76,697**	**$89,566**	**$102,436**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
116	Capital Benefit	$27	$250	$618	$1,582	$4,290	$6,386	$6,566	$6,566	$6,566	$6,566	$6,566	$6,566
117	Expense Benefit	$9	$82	$296	$955	$2,291	$3,195	$3,272	$3,272	$3,272	$3,272	$3,272	$3,272
118	Non-earnings Expense Benefit	$1	$12	$55	$431	$1,804	$2,935	$3,032	$3,032	$3,032	$3,032	$3,032	$3,032
119	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
120	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
121	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
122	**Escalated Annual Benefit**	**$43**	**$401**	**$1,165**	**$3,700**	**$10,773**	**$16,545**	**$17,510**	**$18,024**	**$18,555**	**$19,103**	**$19,668**	**$20,252**
123	**Escalated Cumulative**	**$43**	**$443**	**$1,608**	**$5,308**	**$16,081**	**$32,626**	**$50,136**	**$68,160**	**$86,715**	**$105,818**	**$125,486**	**$145,737**

124	Peak annual Benefit, as modeled	$12,869	The highest year on the Annual Benefit row above.
125	**Peak annual Benefit, escalated**	**$20,252**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
126	**Uplift on peak**	**57.36%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-12B
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Engineer**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-12C
Pacific Gas and Electric Company
ERP and GIS Transformation
Associate Distribution Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Associate Distribution Engineer**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$12,248	$2,871	$9,595	$1,387	$6,067	$12	$27,911	$4,269
2	Gas Distribution	$2,309	$117	$2,388	$66	$1,102	$0	$5,799	$183
3	Electric General	$332	$360	$308	$184	$170	$4	$810	$549
4	Gas Transmission	$719	$208	$790	$126	$354	$0	$1,864	$334
5	Gas General	$11	$12	$13	$7	$6	$0	$30	$20
6	Gas Facilities	$167	$8	$181	$4	$81	$0	$430	$12
7	**TOTAL**	**$15,787**	**$3,576**	**$13,276**	**$1,775**	**$7,780**	**$16**	**$36,843**	**$5,367**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
8		Direct Time	$12,248	$2,871	20.00%	$2,450	$574
9	Electric Distribution	Management OH	$9,595	$1,387	20.00%	$1,959	$278
10		Benefits OH	$6,067	$12	20.00%	$1,213	$2
11		**Electric Distribution Total**	**$27,911**	**$4,269**	**20.13%**	**$5,622**	**$855**
12		Direct Time	$2,309	$117	20.00%	$462	$23
13	Gas Distribution	Management OH	$2,388	$66	20.00%	$478	$13
14		Benefits OH	$1,102	$0	20.00%	$220	$0
15		**Gas Distribution Total**	**$5,799**	**$183**	**20.00%**	**$1,160**	**$37**
16		Direct Time	$332	$360	20.00%	$66	$72
17	Electric General	Management OH	$308	$184	20.00%	$62	$37
18		Benefits OH	$170	$4	20.00%	$34	$1
19		**Electric General Total**	**$810**	**$549**	**20.00%**	**$162**	**$110**
20		Direct Time	$719	$208	20.00%	$144	$42
21	Gas Transmission	Management OH	$790	$126	20.00%	$158	$25
22		Benefits OH	$354	$0	20.00%	$71	$0
23		**Gas Transmission Total**	**$1,864**	**$334**	**20.00%**	**$373**	**$67**
24		Direct Time	$11	$12	20.00%	$2	$2
25	Gas General	Management OH	$13	$7	20.00%	$3	$1
26		Benefits OH	$6	$0	20.00%	$1	$0
27		**Gas General Total**	**$30**	**$20**	**19.99%**	**$6**	**$4**
28		Direct Time	$167	$8	20.00%	$33	$2
29	Gas Facilities	Management OH	$181	$4	20.00%	$36	$1
30		Benefits OH	$81	$0	20.00%	$16	$0
31		**Gas Facilities Total**	**$430**	**$12**	**20.00%**	**$86**	**$2**
32		**TOTAL**	**$36,843**	**$5,367**	**20.10%**	**$7,409**	**$1,074**

Workpaper 3-12C
Pacific Gas and Electric Company
ERP and GIS Transformation
Associate Distribution Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Associate Distribution Engineer**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*		*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total			**Realization Rate**	**Exclusivity**	**onfidence Fact**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**		**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
33		Direct Time	$2,450		$574	60.00%	75.00%	45.00%	$1,102	$258
34	Electric Distribution	Management OH	$1,959		$278	35.00%	75.00%	26.25%	$514	$73
35		Benefits OH	$1,213		$2	35.00%	75.00%	26.25%	$319	$1
36		**Electric Distribution Total**	**$5,622**		**$855**			**35.00%**	**$1,935**	**$332**
37		Direct Time	$462		$23	60.00%	75.00%	45.00%	$208	$11
38	Gas Distribution	Management OH	$478		$13	35.00%	75.00%	26.25%	$125	$3
39		Benefits OH	$220		$0	35.00%	75.00%	26.25%	$58	$0
40		**Gas Distribution Total**	**$1,160**		**$37**			**33.86%**	**$391**	**$14**
41		Direct Time	$66		$72	60.00%	75.00%	45.00%	$30	$32
42	Electric General	Management OH	$62		$37	35.00%	75.00%	26.25%	$16	$10
43		Benefits OH	$34		$1	35.00%	75.00%	26.25%	$9	$0
44		**Electric General Total**	**$162**		**$110**			**35.80%**	**$55**	**$42**
45		Direct Time	$144		$42	60.00%	75.00%	45.00%	$65	$19
46	Gas Transmission	Management OH	$158		$25	35.00%	75.00%	26.25%	$41	$7
47		Benefits OH	$71		$0	35.00%	75.00%	26.25%	$19	$0
48		**Gas Transmission Total**	**$373**		**$67**			**34.16%**	**$125**	**$25**
49		Direct Time	$2		$2	60.00%	75.00%	45.00%	$1	$1
50	Gas General	Management OH	$3		$1	35.00%	75.00%	26.25%	$1	$0
51		Benefits OH	$1		$0	35.00%	75.00%	26.25%	$0	$0
52		**Gas General Total**	**$6**		**$4**			**35.38%**	**$2**	**$1**
53		Direct Time	$33		$2	60.00%	75.00%	45.00%	$15	$1
54	Gas Facilities	Management OH	$36		$1	35.00%	75.00%	26.25%	$10	$0
55		Benefits OH	$16		$0	35.00%	75.00%	26.25%	$4	$0
56		**Gas Facilities Total**	**$86**		**$2**			**33.68%**	**$29**	**$1**
57		**TOTAL**	**$7,409**		**$1,074**			**34.81%**	**$2,537**	**$416**
58	**PRE-EROSION NET BENEFIT**		**$2,537**		**$416**	**$2,953**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
59	Pre-Erosion Net	$2,537	$416	$2,953
60	Erosion Factor	83.10%	83.20%	83.12%
61	Net Benefits	$2,108	$346	$2,454
62	**NET BENEFIT (POST-EROSION)**	**$2,454**		
63	**Capital**	**$2,108**		**85.90%**
64	**Expense incl. NEE**	**$346**		**14.10%**

Workpaper 3-12C
Pacific Gas and Electric Company
ERP and GIS Transformation
Associate Distribution Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Associate Distribution Engineer**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
65	Release 2	Mar 2029	Apr 2030	Mar 2032	$2,191	$1,907	$40
66	Release 3	May 2030	Jun 2031	May 2033	$263	$201	$23
67	**Total**				**$2,454**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Mar 2029, so 2030 earns nothing until April, then 1/24, 2/24 and so on up to 9/24 through December: (1+2+…+9) / 24 / 12 = 15.6%, and 15.6% × $2,191,170 = $342,370.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
68	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
69	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
70	Release 2	$0	$0	$342	$1,415	$2,168	$2,191	$2,191	$2,191	$2,191	$2,191	$2,191	$2,191
71	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
72	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
73	Release 3	$0	$0	$0	$26	$148	$254	$263	$263	$263	$263	$263	$263
74	**Annual Benefit**	**$0**	**$0**	**$342**	**$1,441**	**$2,316**	**$2,445**	**$2,454**	**$2,454**	**$2,454**	**$2,454**	**$2,454**	**$2,454**
75	**CUMULATIVE**	**$0**	**$0**	**$342**	**$1,783**	**$4,099**	**$6,545**	**$8,999**	**$11,453**	**$13,908**	**$16,362**	**$18,816**	**$21,271**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
76	Capital Benefit	$0	$0	$298	$1,251	$2,001	$2,101	$2,108	$2,108	$2,108	$2,108	$2,108	$2,108
77	Expense Benefit	$0	$0	$38	$161	$264	$282	$283	$283	$283	$283	$283	$283
78	Non-earnings Expense Benefit	$0	$0	$6	$28	$52	$62	$63	$63	$63	$63	$63	$63
79	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
80	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
81	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
82	**Escalated Annual Benefit**	**$0**	**$0**	**$402**	**$1,729**	**$2,841**	**$3,067**	**$3,149**	**$3,221**	**$3,295**	**$3,372**	**$3,449**	**$3,529**
83	**Escalated Cumulative**	**$0**	**$0**	**$402**	**$2,132**	**$4,973**	**$8,040**	**$11,189**	**$14,411**	**$17,706**	**$21,077**	**$24,527**	**$28,056**

84	Peak annual Benefit, as modeled	$2,454	The highest year on the Annual Benefit row above.
85	**Peak annual Benefit, escalated**	**$3,529**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
86	**Uplift on peak**	**43.80%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-12C
Pacific Gas and Electric Company
ERP and GIS Transformation
Associate Distribution Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Associate Distribution Engineer**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-12D
Pacific Gas and Electric Company
ERP and GIS Transformation
Maintenance Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Maintenance Engineer**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric General	$1,888	$45	$1,258	$15	$971	$0	$4,116	$60
2	**TOTAL**	**$1,888**	**$45**	**$1,258**	**$15**	**$971**	**$0**	**$4,116**	**$60**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*
		Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
3		Direct Time	$1,888	$45	20.00%	$378	$9
4	Electric General	Management OH	$1,258	$15	20.00%	$252	$3
5		Benefits OH	$971	$0	20.00%	$194	$0
6		**Electric General Total**	**$4,116**	**$60**	**20.00%**	**$823**	**$12**
7		**TOTAL**	**$4,116**	**$60**	**20.00%**	**$823**	**$12**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
		Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
8		Direct Time	$378	$9	60.00%	75.00%	45.00%	$170	$4
9	Electric General	Management OH	$252	$3	35.00%	75.00%	26.25%	$66	$1
10		Benefits OH	$194	$0	35.00%	75.00%	26.25%	$51	$0
11		**Electric General Total**	**$823**	**$12**			**34.93%**	**$287**	**$5**
12		**TOTAL**	**$823**	**$12**			**34.93%**	**$287**	**$5**
13	**PRE-EROSION NET BENEFIT**		**$287**	**$5**	**$292**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
14	Pre-Erosion Net	$287	$5	$292
15	Erosion Factor	82.00%	82.00%	82.00%
16	Net Benefits	$235	$4	$239
17	**NET BENEFIT (POST-EROSION)**	**$239**		
18	**Capital**	**$235**		**98.33%**
19	**Expense incl. NEE**	**$4**		**1.67%**

Workpaper 3-12D
Pacific Gas and Electric Company
ERP and GIS Transformation
Maintenance Engineer - Expansion of Compatible Units Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Role	**Maintenance Engineer**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
20	Release 3	May 2030	Jun 2031	May 2033	$239	$235	$4
21	**Total**				**$239**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $239,246 = $23,260.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
22	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
23	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
24	Release 3	$0	$0	$0	$23	$135	$231	$239	$239	$239	$239	$239	$239
25	**Annual Benefit**	**$0**	**$0**	**$0**	**$23**	**$135**	**$231**	**$239**	**$239**	**$239**	**$239**	**$239**	**$239**
26	**CUMULATIVE**	**$0**	**$0**	**$0**	**$23**	**$158**	**$389**	**$628**	**$867**	**$1,107**	**$1,346**	**$1,585**	**$1,824**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
27	Capital Benefit	$0	$0	$0	$23	$132	$227	$235	$235	$235	$235	$235	$235
28	Expense Benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
29	Non-earnings Expense Benefit	$0	$0	$0	$0	$2	$4	$4	$4	$4	$4	$4	$4
30	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
31	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
32	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
33	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$28**	**$162**	**$284**	**$300**	**$306**	**$313**	**$319**	**$326**	**$332**
34	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$28**	**$190**	**$474**	**$774**	**$1,081**	**$1,394**	**$1,713**	**$2,039**	**$2,371**

35	Peak annual Benefit, as modeled	$239	The highest year on the Annual Benefit row above.
36	**Peak annual Benefit, escalated**	**$332**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
37	**Uplift on peak**	**38.97%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-12E
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Expansion of Compatible Units External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Scope	**External Labor**

Contractor and supplier spend on the commodity codes these roles' work touches.

STEP 1 OF 4: ADDRESSABLE SPEND

General Ledger spend mapped to each role by commodity code, with material group spend allocated across the underlying commodity codes.

Line No.	Role	Addressable Spend
1	Engineer	$95,436
2	**TOTAL ADDRESSABLE SPEND**	**$95,436**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Enterprise-wide benchmark rate set by role and applied consistently across all spend for that role.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Role	**Addressable Spend**	**Improvement Range %[1]**	**Gross Benefit**
3	Engineer	$95,436	20.00%	$19,087
4	**TOTAL GROSS BENEFIT**	**$95,436**		**$19,087**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor applies to the whole pool. All external labor benefit traces to a contract or purchase order.

	HOW THE CONFIDENCE FACTOR IS BUILT	
5	Starting realization rate	25.00%
6	+ Maturity adjustment (percentage points)	10.00%
7	Realization Rate	35.00%
8	× Exclusivity %	75.00%
9	**CONFIDENCE FACTOR**	**26.25%**

	Formula Walkthrough	*A*	*B*	*C = A x B*
		Gross Benefit	**Confidence Factor**	**Net Benefit**
10	Traced to a commodity code (all rows)	$19,087	26.25%	$5,010
11	**PRE-EROSION NET BENEFIT**			**$5,010**

STEP 4 OF 4: EROSION & EXCEPTIONS

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*		
	Role	**Pre-Erosion Net**	**Erosion Applied**	**Post-Erosion Net**	**Capital**	**Expense Incl. NEE**
12	Engineer	$5,010	80.01%	$4,009	$2,836	$1,173
13	**TOTAL**	**$5,010**	**80.01%**	**$4,009**	**$2,836**	**$1,173**

		Post Erosion Net	**% of Total**
14	**Capital**	**$2,836**	**70.74%**
15	**Expense incl. NEE**	**$1,173**	**29.26%**
16	**NET BENEFIT (POST-EROSION)**	**$4,009**	

	RELEASE SCHEDULE SHOWN FOR	**Engineer**
17	**Post-Erosion Net, Selected Role**	**$4,009**

Workpaper 3-12E
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Expansion of Compatible Units External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Scope	**External Labor**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

ANNUAL BENEFIT AT RUN RATE BY RELEASE, ALL ROLES

	Role	Release 1	Release 2	Total	Release 1 Capital	Release 1 Non-earnings	Release 2 Capital	Release 2 Non-earnings expense
18	Engineer	$1,627	$2,382	$4,009	$845	$43	$1,990	$224
19	**Total**	**$1,627**	**$2,382**	**$4,009**	**$845**	**$43**	**$1,990**	**$224**

RELEASE SCHEDULE, SELECTED ROLE

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate
20	Release 1	Jul 2027	Aug 2028	Jul 2030	$1,627
21	Release 2	Mar 2029	Apr 2030	Mar 2032	$2,382
22	**Total**				**$4,009**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
23	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
24	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
25	Release 1 Benefit	$85	$780	$1,508	$1,627	$1,627	$1,627	$1,627	$1,627	$1,627	$1,627	$1,627	$1,627
26	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
27	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
28	Release 2 Benefit	$0	$0	$372	$1,538	$2,357	$2,382	$2,382	$2,382	$2,382	$2,382	$2,382	$2,382
29	**Annual Benefit, Selected Role**	**$85**	**$780**	**$1,881**	**$3,165**	**$3,984**	**$4,009**	**$4,009**	**$4,009**	**$4,009**	**$4,009**	**$4,009**	**$4,009**
30	**Cumulative, Selected Role**	**$85**	**$864**	**$2,745**	**$5,910**	**$9,894**	**$13,903**	**$17,912**	**$21,920**	**$25,929**	**$29,938**	**$33,947**	**$37,956**

ANNUAL BENEFIT, ALL ROLES Each release's annual amount at run rate, multiplied by the Ramp % for that year.

	Role	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
31	Engineer	$85	$780	$1,881	$3,165	$3,984	$4,009	$4,009	$4,009	$4,009	$4,009	$4,009	$4,009
32	**Total**	**$85**	**$780**	**$1,881**	**$3,165**	**$3,984**	**$4,009**	**$4,009**	**$4,009**	**$4,009**	**$4,009**	**$4,009**	**$4,009**
33	**Cumulative, all roles**	**$85**	**$864**	**$2,745**	**$5,910**	**$9,894**	**$13,903**	**$17,912**	**$21,920**	**$25,929**	**$29,938**	**$33,947**	**$37,956**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
35	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
36	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
37	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
	CAPITAL BENEFIT BY ROLE												
38	Engineer	$44	$405	$1,095	$2,131	$2,815	$2,836	$2,836	$2,836	$2,836	$2,836	$2,836	$2,836
39	**Total**	**$44**	**$405**	**$1,095**	**$2,131**	**$2,815**	**$2,836**	**$2,836**	**$2,836**	**$2,836**	**$2,836**	**$2,836**	**$2,836**
	EXPENSE BENEFIT BY ROLE												
40	Engineer	$38	$354	$710	$846	$903	$905	$905	$905	$905	$905	$905	$905
41	**Total**	**$38**	**$354**	**$710**	**$846**	**$903**	**$905**	**$905**	**$905**	**$905**	**$905**	**$905**	**$905**
	NON-EARNINGS EXPENSE BENEFIT BY ROLE												
42	Engineer	$2	$21	$75	$188	$265	$268	$268	$268	$268	$268	$268	$268
43	**Total**	**$2**	**$21**	**$75**	**$188**	**$265**	**$268**	**$268**	**$268**	**$268**	**$268**	**$268**	**$268**
	ESCALATED ANNUAL BENEFIT BY ROLE												
44	Engineer	$94	$883	$2,172	$3,730	$4,789	$4,916	$5,018	$5,121	$5,227	$5,335	$5,446	$5,558
45	**Total**	**$94**	**$883**	**$2,172**	**$3,730**	**$4,789**	**$4,916**	**$5,018**	**$5,121**	**$5,227**	**$5,335**	**$5,446**	**$5,558**
46	**Escalated cumulative, all roles**	**$94**	**$977**	**$3,149**	**$6,879**	**$11,668**	**$16,583**	**$21,601**	**$26,722**	**$31,949**	**$37,284**	**$42,729**	**$48,287**
47	**Escalated Annual Benefit, Selected Role**	**$94**	**$883**	**$2,172**	**$3,730**	**$4,789**	**$4,916**	**$5,018**	**$5,121**	**$5,227**	**$5,335**	**$5,446**	**$5,558**
48	**Escalated Cumulative, Selected Role**	**$94**	**$977**	**$3,149**	**$6,879**	**$11,668**	**$16,583**	**$21,601**	**$26,722**	**$31,949**	**$37,284**	**$42,729**	**$48,287**

49	Peak annual Benefit, all roles, as modeled	$4,009	The highest year on the Total row of the schedule above.
50	**Peak annual Benefit, all roles, escalated**	**$5,558**	The highest year on the escalated Total row. Escalation can move which year that is, so this is not simply the peak above times one rate.
51	**Uplift on peak**	**38.65%**	

Workpaper 3-12E
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Expansion of Compatible Units External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Expansion of Compatible Units
Scope	**External Labor**

GLOSSARY

Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Three factors apply in Step 4: E1, E2, and E3, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the planned improvement. Set by role and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
Material or Services	Identifies whether the commodity code represents goods or services. External labor benefits apply to services.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.
Traceability	All external labor benefits trace to an identifiable commodity code and role. This describes how precisely the spend can be traced, not overhead loading; internal labor includes management overhead and benefits overhead in its spend base; external labor does not.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-12F
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Expansion of Compatible Units Internal Labor

A. CONFIDENCE RATES

Line No.		Direct Time	Management OH	Benefits OH	Notes
1	Starting Realization Rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization Rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	Confidence Factor (Realization × Exclusivity %)	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. EROSION FACTOR BY ROLE

	Role	Erosion Factor - Capital	Erosion Factor - Expense Incl. NEE	Combined Erosion Factor
6	Engineer	86.04%	85.95%	86.00%
7	Associate Distribution Engineer	83.10%	83.20%	83.12%
8	Maintenance Engineer	82.00%	82.00%	82.00%

Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It is set by operating area.

Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It is set by operating area.

C. IMPROVEMENT RANGE %[1] BY ROLE AND OPERATING AREA

	Role	Operating Area	Improvement Range %[1]
9	Engineer	Electric Distribution	20.00%
10	Engineer	Gas Distribution	20.00%
11	Engineer	Electric General	20.00%
12	Engineer	Substation	20.00%
13	Engineer	Shared Services	20.00%
14	Engineer	Gas Transmission	20.00%
15	Engineer	Power Generation	20.00%
16	Engineer	Electric Transmission	20.00%
17	Engineer	Gas General	20.00%
18	Engineer	Gas Facilities	20.00%
19	Associate Distribution Engineer	Electric Distribution	20.00%
20	Associate Distribution Engineer	Gas Distribution	20.00%
21	Associate Distribution Engineer	Electric General	20.00%
22	Associate Distribution Engineer	Gas Transmission	20.00%
23	Associate Distribution Engineer	Gas General	20.00%
24	Associate Distribution Engineer	Gas Facilities	20.00%
25	Maintenance Engineer	Electric General	20.00%

Note: Benchmark improvement rate applied to the underlying General Ledger spend. Where multiple rates apply to a role and operating area, they are averaged based on the share of addressable spend at each rate.

F. MOBILE AS-BUILTS EROSION BY OPERATING AREA

Operating Area	Mobile As-Builts Erosion Factor
Gas	1
All other operating areas	0.82

Operating Area	Erosion Factor
Electric Distribution	0.82
Gas Distribution	0.82
Electric General	0.82
Electric Transmission	0.82
Gas General	1
Gas Transmission	1
Gas Facilities	1
Power Generation	0.82
Substation	0.82
Shared Services	0.82

D. ADOPTION SCHEDULE

			Notes
26	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
27	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
28	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
29	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
30	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
31	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
32	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
33	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-12G
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Expansion of Compatible Units External Labor

Assumptions & Reference Rates

External Labor Efficiencies - contractors performing work equivalent to an internal role benefit from the same standard processes, mobile tooling and work-model simplification.

Line No.	A. CONFIDENCE RATES		Notes
1	Starting realization rate	25.00%	External labor starts at 25% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION - GLOBAL		
6	E1 - Value Driver scope	Per role - see section C	Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It is set by operating area.
7	E2 - Nuclear Generation	0.00%	No role-based benefits are applied to Nuclear Generation. Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
8	E3 - Mobile As-Builts	Per role - see section C	Takes out the share of the benefit that the Mobile As-Builts initiative already claims, so the same saving is not counted twice. The allocation reaches engineering roles only, so it is carried per role in section C rather than as a single global figure. A role showing 1.0000 carries no Mobile As-Builts adjustment.

C. ROLE RATES AND EROSION

	Role	Improvement Range %[1]	E1 - Value Driver scope	E3 - Mobile As-Builts	
9	Field Technician	27.62%	99.84%	100.00%	Improvement Range % is the role's "Shared Services" benchmark, the same benchmark the internal labor model uses for that role. Internal labor applies it org by org; here it is one blended figure across the role's whole spend, because contractor spend is not broken out by org the way payroll is.
10	Inspector	20.00%	99.84%	100.00%	
11	Designer	20.62%	69.50%	100.00%	
12	Engineer	20.00%	100.00%	82.00%	
13	GIS Tech	34.68%	100.00%	100.00%	
14	Project Manager	20.00%	100.00%	100.00%	

D. ADOPTION SCHEDULE

15	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
16	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
17	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
18	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
19	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
22	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-13
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Enhanced Design Management / Drawing Tools

WP#	Workpaper Name
	Summary WPs
3-13	Testimony Table
3-13A	Enhanced Design Management / Drawing Tools Summary
	Detail Role WPs
3-13B	Designer - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
3-13C	Estimator - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
3-13D	External Labor - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
	Assumptions & Reference Rates WPs
3-13E	Assumptions & Reference Rates - Enhanced Design Management & Drawing Tools Internal Labor
3-13F	Assumptions & Reference Rates - Enhanced Design Management & Drawing Tools External Labor

Workpaper 3-13
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-37
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$6,434.7**

Workpaper 3-13A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Enhanced Design Management / Drawing Tools
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Calculation Method	Role-based

DEFINITION

Internal and external efficiencies applied to specific roles involved in design and estimation work. Integration of drawing tools with SAP automates the creation of construction task lists and material requirements directly from designs, reducing manual data re-entry, eliminating duplicate platform management, and extending automation.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Designer	$5,697	$949	$6,646	$8,196	$1,366	$9,562
2	Estimator	$10,366	$618	$10,985	$14,565	$869	$15,434
3	**Subtotal: Internal Labor**	**$16,063**	**$1,568**	**$17,631**	**$22,762**	**$2,235**	**$24,996**
4	**External Labor**	**$3,637**	**$924**	**$4,561**	**$5,039**	**$1,280**	**$6,319**
5	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
6	**TOTAL VALUE DRIVER BENEFIT**	**$19,700**	**$2,491**	**$22,192**	**$27,801**	**$3,514**	**$31,315**
7	**Peak Annual Benefit, Un-escalated**	**$22,192**					
8	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
9	Internal labor - Designer	$1	$9	$259	$1,515	$4,410	$6,470	$6,646	$6,646	$6,646	$6,646	$6,646	$6,646	$52,540
10	Internal labor - Estimator	$0	$0	$1,526	$6,428	$10,351	$10,942	$10,985	$10,985	$10,985	$10,985	$10,985	$10,985	$95,156
11	**Subtotal: Internal Labor**	**$1**	**$9**	**$1,786**	**$7,942**	**$14,761**	**$17,412**	**$17,631**	**$17,631**	**$17,631**	**$17,631**	**$17,631**	**$17,631**	**$147,696**
12	External labor	$2	$15	$737	$2,957	$4,514	$4,561	$4,561	$4,561	$4,561	$4,561	$4,561	$4,561	$295,391
13	**TOTAL: ALL COMPONENTS**	**$3**	**$24**	**$2,523**	**$10,899**	**$19,275**	**$21,973**	**$22,192**	**$22,192**	**$22,192**	**$22,192**	**$22,192**	**$22,192**	**$187,847**
14	Capital	$1	$13	$2,199	$9,575	$17,037	$19,501	$19,700	$19,700	$19,700	$19,700	$19,700	$19,700	$166,528
15	Expense incl. NEE	$1	$11	$324	$1,325	$2,238	$2,473	$2,491	$2,491	$2,491	$2,491	$2,491	$2,491	$21,319
16	**CUMULATIVE**	**$3**	**$26**	**$2,549**	**$13,448**	**$32,723**	**$54,696**	**$76,888**	**$99,080**	**$121,272**	**$143,464**	**$165,655**	**$187,847**	
17	**CUMULATIVE BENEFITS**	**$187,847**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
18	Internal labor - Designer	$1	$10	$312	$1,849	$5,440	$8,121	$8,530	$8,726	$8,927	$9,134	$9,345	$9,562	$69,956
19	Internal labor - Estimator	$0	$0	$1,780	$7,640	$12,552	$13,546	$13,887	$14,182	$14,485	$14,794	$15,111	$15,434	$123,411
20	External labor	$2	$17	$853	$3,488	$5,428	$5,594	$5,709	$5,826	$5,945	$6,067	$6,192	$6,319	$51,442
21	**TOTAL, ALL COMPONENTS, ESCALATED**	**$3**	**$27**	**$2,946**	**$12,977**	**$23,420**	**$27,262**	**$28,126**	**$28,733**	**$29,357**	**$29,995**	**$30,648**	**$31,315**	**$244,809**
22	Capital	$2	$14	$2,554	$11,319	$20,513	$23,930	$24,659	$25,154	$25,663	$26,181	$26,710	$27,249	$213,947
23	Expense incl. NEE	$1	$13	$392	$1,658	$2,907	$3,331	$3,467	$3,579	$3,695	$3,814	$3,938	$4,066	$30,861
24	**CUMULATIVE, ESCALATED**	**$3**	**$30**	**$2,976**	**$15,953**	**$39,373**	**$66,634**	**$94,760**	**$123,493**	**$152,850**	**$182,845**	**$213,493**	**$244,809**	

Workpaper 3-13B
Pacific Gas and Electric Company
ERP and GIS Transformation
Designer - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Designer**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Distribution	$2,060	$1,358	$2,194	$764	$1,023	$0	$5,277	$2,122
2	Electric General	$9,747	$1,943	$8,941	$896	$5,045	$0	$23,732	$2,840
3	Substation	$5,920	$243	$5,520	$116	$3,044	$0	$14,484	$358
4	Gas Transmission	$1,741	$232	$1,903	$159	$872	$0	$4,517	$391
5	Power Generation	$498	$291	$76	$298	$237	$0	$811	$589
6	**TOTAL**	**$19,966**	**$4,068**	**$18,634**	**$2,233**	**$10,221**	**$0**	**$48,821**	**$6,301**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
7		Direct Time	$2,060	$1,358	20.00%	$412	$272
8	Gas Distribution	Management OH	$2,194	$764	20.00%	$439	$153
9		Benefits OH	$1,023	$0	20.00%	$205	$0
10		**Gas Distribution Total**	**$5,277**	**$2,122**	**20.00%**	**$1,055**	**$424**
11		Direct Time	$9,747	$1,943	20.00%	$1,949	$389
12	Electric General	Management OH	$8,941	$896	20.00%	$1,788	$179
13		Benefits OH	$5,045	$0	20.00%	$1,009	$0
14		**Electric General Total**	**$23,732**	**$2,840**	**20.00%**	**$4,747**	**$568**
15		Direct Time	$5,920	$243	20.00%	$1,184	$49
16	Substation	Management OH	$5,520	$116	20.00%	$1,104	$23
17		Benefits OH	$3,044	$0	20.00%	$609	$0
18		**Substation Total**	**$14,484**	**$358**	**20.00%**	**$2,897**	**$72**
19		Direct Time	$1,741	$232	35.00%	$610	$81
20	Gas Transmission	Management OH	$1,903	$159	35.00%	$666	$56
21		Benefits OH	$872	$0	35.00%	$305	$0
22		**Gas Transmission Total**	**$4,517**	**$391**	**35.00%**	**$1,581**	**$137**
23		Direct Time	$498	$291	5.00%	$25	$15
24	Power Generation	Management OH	$76	$298	5.00%	$4	$15
25		Benefits OH	$237	$0	5.00%	$12	$0
26		**Power Generation Total**	**$811**	**$589**	**5.01%**	**$41**	**$29**
27		**TOTAL**	**$48,821**	**$6,301**	**20.95%**	**$10,320**	**$1,230**

Workpaper 3-13B
Pacific Gas and Electric Company
ERP and GIS Transformation
Designer - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Designer**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*		*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total			**Realization Rate**	**Exclusivity**	**onfidence Fact**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**		**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
28		Direct Time	$412		$272	60.00%	75.00%	45.00%	$185	$122
29	Gas Distribution	Management OH	$439		$153	35.00%	75.00%	26.25%	$115	$40
30		Benefits OH	$205		$0	35.00%	75.00%	26.25%	$54	$0
31		**Gas Distribution Total**	**$1,055**		**$424**			**34.91%**	**$354**	**$162**
32		Direct Time	$1,949		$389	60.00%	75.00%	45.00%	$877	$175
33	Electric General	Management OH	$1,788		$179	35.00%	75.00%	26.25%	$469	$47
34		Benefits OH	$1,009		$0	35.00%	75.00%	26.25%	$265	$0
35		**Electric General Total**	**$4,747**		**$568**			**34.50%**	**$1,611**	**$222**
36		Direct Time	$1,184		$49	60.00%	75.00%	45.00%	$533	$22
37	Substation	Management OH	$1,104		$23	35.00%	75.00%	26.25%	$290	$6
38		Benefits OH	$609		$0	35.00%	75.00%	26.25%	$160	$0
39		**Substation Total**	**$2,897**		**$72**			**34.03%**	**$982**	**$28**
40		Direct Time	$610		$81	60.00%	75.00%	45.00%	$274	$37
41	Gas Transmission	Management OH	$666		$56	35.00%	75.00%	26.25%	$175	$15
42		Benefits OH	$305		$0	35.00%	75.00%	26.25%	$80	$0
43		**Gas Transmission Total**	**$1,581**		**$137**			**33.79%**	**$529**	**$51**
44		Direct Time	$25		$15	60.00%	75.00%	45.00%	$11	$7
45	Power Generation	Management OH	$4		$15	35.00%	75.00%	26.25%	$1	$4
46		Benefits OH	$12		$0	35.00%	75.00%	26.25%	$3	$0
47		**Power Generation Total**	**$41**		**$29**			**36.80%**	**$15**	**$10**
48		**TOTAL**	**$10,320**		**$1,230**			**34.34%**	**$3,493**	**$474**
49	**PRE-EROSION NET BENEFIT, STEPS 1-3**		**$3,493**		**$474**	**$3,967**				

STEP 3B: NON-GL BENEFIT COMPONENT

The model carries an additional benefit for this role that does not come off the General Ledger, so it cannot be built from spend rows. It is carried at its published amount, on direct time with no overhead loading, and takes the same Confidence Factor.

		Gross		**Realization Rate**	**Exclusivity**	**onfidence Fact**	**Adjusted Benefits**	
	Component	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
50	Non-GL Benefit component (no overhead loading)	$10,453	$1,982	60.00%	75.00%	45.00%	$4,704	$892
51	**TOTAL PRE-EROSION NET BENEFIT**	**$8,197**	**$1,366**	**$9,563**				

Workpaper 3-13B
Pacific Gas and Electric Company
ERP and GIS Transformation
Designer - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Designer**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
52	Pre-Erosion Net	$8,197	$1,366	$9,563
53	Erosion Factor	69.50%	69.50%	69.50%
54	Net Benefits	$5,697	$949	$6,646
55	**NET BENEFIT (POST-EROSION)**	**$6,646**		
56	**Capital**	**$5,697**		**85.72%**
57	**Expense incl. NEE**	**$949**		**14.28%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
58	Release 1	Jul 2027	Aug 2028	Jul 2030	$18	$11	$0
59	Release 2	Mar 2029	Apr 2030	Mar 2032	$1,554	$966	$177
60	Release 3	May 2030	Jun 2031	May 2033	$5,075	$4,720	$233
61	**Total**				**$6,646**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $17,944 = $935.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
62	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
63	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
64	Release 1	$1	$9	$17	$18	$18	$18	$18	$18	$18	$18	$18	$18
65	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
66	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
67	Release 2	$0	$0	$243	$1,003	$1,537	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554
68	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
69	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
70	Release 3	$0	$0	$0	$493	$2,855	$4,898	$5,075	$5,075	$5,075	$5,075	$5,075	$5,075
71	**Annual Benefit**	**$1**	**$9**	**$259**	**$1,515**	**$4,410**	**$6,470**	**$6,646**	**$6,646**	**$6,646**	**$6,646**	**$6,646**	**$6,646**
72	**CUMULATIVE**	**$1**	**$10**	**$269**	**$1,784**	**$6,193**	**$12,663**	**$19,309**	**$25,955**	**$32,602**	**$39,248**	**$45,894**	**$52,540**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
73	Capital Benefit	$1	$5	$161	$1,093	$3,622	$5,533	$5,697	$5,697	$5,697	$5,697	$5,697	$5,697
74	Expense Benefit	$0	$3	$71	$284	$482	$535	$539	$539	$539	$539	$539	$539
75	Non-earnings Expense Benefit	$0	$0	$28	$137	$306	$402	$410	$410	$410	$410	$410	$410
76	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
77	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
78	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
79	**Escalated Annual Benefit**	**$1**	**$10**	**$312**	**$1,849**	**$5,440**	**$8,121**	**$8,530**	**$8,726**	**$8,927**	**$9,134**	**$9,345**	**$9,562**
80	**Escalated Cumulative**	**$1**	**$11**	**$323**	**$2,172**	**$7,612**	**$15,733**	**$24,263**	**$32,988**	**$41,916**	**$51,049**	**$60,394**	**$69,956**

81	Peak annual Benefit, as modeled	$6,646	The highest year on the Annual Benefit row above.
82	**Peak annual Benefit, escalated**	**$9,562**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
83	**Uplift on peak**	**43.87%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-13B
Pacific Gas and Electric Company
ERP and GIS Transformation
Designer - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Designer**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

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Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-13C
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Estimator**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$31,878	$1,513	$24,663	$596	$15,789	$35	$72,330	$2,145
2	Gas Distribution	$6,359	$429	$6,882	$242	$3,021	$0	$16,262	$672
3	Electric General	$820	$20	$718	$15	$414	$0	$1,952	$35
4	Gas Transmission	$1,801	$435	$1,983	$261	$882	$0	$4,666	$697
5	Gas Facilities	$506	$13	$548	$8	$246	$0	$1,301	$21
6	**TOTAL**	**$41,364**	**$2,412**	**$34,794**	**$1,122**	**$20,353**	**$36**	**$96,511**	**$3,569**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
7		Direct Time	$31,878	$1,513	20.00%	$6,376	$303
8	Electric Distribution	Management OH	$24,663	$596	20.00%	$5,005	$120
9		Benefits OH	$15,789	$35	20.00%	$3,158	$7
10		**Electric Distribution Total**	**$72,330**	**$2,145**	**20.10%**	**$14,538**	**$429**
11		Direct Time	$6,359	$429	20.00%	$1,272	$86
12	Gas Distribution	Management OH	$6,882	$242	20.00%	$1,376	$48
13		Benefits OH	$3,021	$0	20.00%	$604	$0
14		**Gas Distribution Total**	**$16,262**	**$672**	**20.00%**	**$3,252**	**$134**
15		Direct Time	$820	$20	20.00%	$164	$4
16	Electric General	Management OH	$718	$15	20.00%	$144	$3
17		Benefits OH	$414	$0	20.00%	$83	$0
18		**Electric General Total**	**$1,952**	**$35**	**20.00%**	**$390**	**$7**
19		Direct Time	$1,801	$435	35.00%	$630	$152
20	Gas Transmission	Management OH	$1,983	$261	35.00%	$694	$91
21		Benefits OH	$882	$0	35.00%	$309	$0
22		**Gas Transmission Total**	**$4,666**	**$697**	**35.00%**	**$1,633**	**$244**
23		Direct Time	$506	$13	35.00%	$177	$5
24	Gas Facilities	Management OH	$548	$8	35.00%	$192	$3
25		Benefits OH	$246	$0	35.00%	$86	$0
26		**Gas Facilities Total**	**$1,301**	**$21**	**35.00%**	**$455**	**$7**
27		**TOTAL**	**$96,511**	**$3,569**	**21.07%**	**$20,269**	**$822**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**onfidence Fact**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
28		Direct Time	$6,376	$303	60.00%	75.00%	45.00%	$2,869	$136
29	Electric Distribution	Management OH	$5,005	$120	35.00%	75.00%	26.25%	$1,314	$31
30		Benefits OH	$3,158	$7	35.00%	75.00%	26.25%	$829	$2
31		**Electric Distribution Total**	**$14,538**	**$429**			**34.62%**	**$5,012**	**$169**
32		Direct Time	$1,272	$86	60.00%	75.00%	45.00%	$572	$39
33	Gas Distribution	Management OH	$1,376	$48	35.00%	75.00%	26.25%	$361	$13
34		Benefits OH	$604	$0	35.00%	75.00%	26.25%	$159	$0
35		**Gas Distribution Total**	**$3,252**	**$134**			**33.77%**	**$1,092**	**$51**
36		Direct Time	$164	$4	60.00%	75.00%	45.00%	$74	$2
37	Electric General	Management OH	$144	$3	35.00%	75.00%	26.25%	$38	$1
38		Benefits OH	$83	$0	35.00%	75.00%	26.25%	$22	$0
39		**Electric General Total**	**$390**	**$7**			**34.18%**	**$133**	**$3**
40		Direct Time	$630	$152	60.00%	75.00%	45.00%	$284	$69
41	Gas Transmission	Management OH	$694	$91	35.00%	75.00%	26.25%	$182	$24
42		Benefits OH	$309	$0	35.00%	75.00%	26.25%	$81	$0
43		**Gas Transmission Total**	**$1,633**	**$244**			**34.07%**	**$547**	**$93**
44		Direct Time	$177	$5	60.00%	75.00%	45.00%	$80	$2
45	Gas Facilities	Management OH	$192	$3	35.00%	75.00%	26.25%	$50	$1
46		Benefits OH	$86	$0	35.00%	75.00%	26.25%	$23	$0
47		**Gas Facilities Total**	**$455**	**$7**			**33.62%**	**$153**	**$3**
48		**TOTAL**	**$20,269**	**$822**			**34.40%**	**$6,937**	**$319**
49	**PRE-EROSION NET BENEFIT, STEPS 1-3**		**$6,937**	**$319**	**$7,256**				

Workpaper 3-13C
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Estimator**

STEP 3B: NON-GL BENEFIT COMPONENT

The model carries an additional benefit for this role that does not come off the General Ledger, so it cannot be built from spend rows. It is carried at its published amount, on direct time with no overhead loading, and takes the same Confidence Factor.

		Gross		Realization Rate	Exclusivity	onfidence Facti	Adjusted Benefits	
	Component	Capital	Expense	%	%	%	Capital	Expense
50	Non-GL Benefit component (no overhead loading)	$17,730	$1,268	60.00%	75.00%	45.00%	$7,979	$571
51	**TOTAL PRE-EROSION NET BENEFIT**	**$14,915**	**$890**	**$15,805**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
52	Pre-Erosion Net	$14,915	$890	$15,805
53	Erosion Factor	69.50%	69.50%	69.50%
54	Net Benefits	$10,366	$618	$10,985
55	**NET BENEFIT (POST-EROSION)**	**$10,985**		
56	**Capital**	**$10,366**		**94.37%**
57	**Expense incl. NEE**	**$618**		**5.63%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
58	Release 2	Mar 2029	Apr 2030	Mar 2032	$9,769	$9,330	$85
59	Release 3	May 2030	Jun 2031	May 2033	$1,215	$1,036	$79
60	**Total**				**$10,985**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Mar 2029, so 2030 earns nothing until April, then 1/24, 2/24 and so on up to 9/24 through December: (1+2+…+9) / 24 / 12 = 15.6%, and 15.6% × $9,769,490 = $1,526,483.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
61	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
62	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
63	Release 2	$0	$0	$1,526	$6,309	$9,668	$9,769	$9,769	$9,769	$9,769	$9,769	$9,769	$9,769
64	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
65	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
66	Release 3	$0	$0	$0	$118	$684	$1,173	$1,215	$1,215	$1,215	$1,215	$1,215	$1,215
67	**Annual Benefit**	**$0**	**$0**	**$1,526**	**$6,428**	**$10,351**	**$10,942**	**$10,985**	**$10,985**	**$10,985**	**$10,985**	**$10,985**	**$10,985**
68	**CUMULATIVE**	**$0**	**$0**	**$1,526**	**$7,954**	**$18,305**	**$29,248**	**$40,232**	**$51,217**	**$62,202**	**$73,186**	**$84,171**	**$95,156**

Workpaper 3-13C
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - Enhanced Design Management & Drawing Tools Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Role	**Estimator**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
69	Capital Benefit	$0	$0	$1,458	$6,126	$9,816	$10,330	$10,366	$10,366	$10,366	$10,366	$10,366	$10,366
70	Expense Benefit	$0	$0	$55	$239	$407	$451	$454	$454	$454	$454	$454	$454
71	Non-earnings Expense Benefit	$0	$0	$13	$62	$128	$161	$164	$164	$164	$164	$164	$164
72	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
73	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
74	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
75	**Escalated Annual Benefit**	**$0**	**$0**	**$1,780**	**$7,640**	**$12,552**	**$13,546**	**$13,887**	**$14,182**	**$14,485**	**$14,794**	**$15,111**	**$15,434**
76	**Escalated Cumulative**	**$0**	**$0**	**$1,780**	**$9,420**	**$21,972**	**$35,518**	**$49,405**	**$63,587**	**$78,072**	**$92,866**	**$107,977**	**$123,411**

77	Peak annual Benefit, as modeled	$10,985	The highest year on the Annual Benefit row above.
78	**Peak annual Benefit, escalated**	**$15,434**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
79	**Uplift on peak**	**40.51%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-13D
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Enhanced Design Management & Drawing Tools External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Scope	**External Labor**

Contractor and supplier spend on the commodity codes these roles' work touches.

STEP 1 OF 4: ADDRESSABLE SPEND

General Ledger spend mapped to each role by commodity code, with material group spend allocated across the underlying commodity codes.

Line No.	Role	Addressable Spend
1	Designer	$125,271
2	**TOTAL ADDRESSABLE SPEND**	**$125,271**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Enterprise-wide benchmark rate set by role and applied consistently across all spend for that role.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Role	**Addressable Spend**	**rovement Rang**	**Gross Benefit**
3	Designer	$125,271	20.62%	$25,832
4	**TOTAL GROSS BENEFIT**	**$125,271**		**$25,832**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor applies to the whole pool. All external labor benefit traces to a contract or purchase order.

	HOW THE CONFIDENCE FACTOR IS BUILT	
5	Starting realization rate	25.00%
6	+ Maturity adjustment (percentage points)	10.00%
7	Realization Rate	35.00%
8	× Exclusivity %	75.00%
9	**CONFIDENCE FACTOR**	**26.25%**

	Formula Walkthrough	*A*	*B*	*C = A x B*
		Gross Benefit	**Confidence Factor**	**Net Benefit**
10	Traced to a commodity code (all rows)	$25,832	26.25%	$6,781
11	**PRE-EROSION NET BENEFIT**			**$6,781**

STEP 4 OF 4: EROSION & EXCEPTIONS

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*		
	Role	**Pre-Erosion Net**	**Erosion Applied**	**Post-Erosion Net**	**Capital**	**Expense Incl. NEE**
12	Designer	$6,781	67.26%	$4,561	$3,637	$924
13	**TOTAL**	**$6,781**	**67.26%**	**$4,561**	**$3,637**	**$924**

		Post Erosion Net	**% of Total**
14	**Capital**	**$3,637**	**79.75%**
15	**Expense incl. NEE**	**$924**	**20.25%**
16	**NET BENEFIT (POST-EROSION)**	**$4,561**	

	RELEASE SCHEDULE SHOWN FOR	**Designer**
17	**Post-Erosion Net, Selected Role**	**$4,561**

Workpaper 3-13D
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Enhanced Design Management & Drawing Tools External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Scope	**External Labor**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

ANNUAL BENEFIT AT RUN RATE BY RELEASE, ALL ROLES

	Role	Release 1	Release 2	Total	Release 1 Capital	Release 1 Non-earnings expense	Release 2 Capital	Release 2 Non-earnings expense
18	Designer	$31	$4,530	$4,561	$16	$8	$3,622	$462
19	**Total**	**$31**	**$4,530**	**$4,561**	**$16**	**$8**	**$3,622**	**$462**

RELEASE SCHEDULE, SELECTED ROLE

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
20	Release 1	Jul 2027	Aug 2028	Jul 2030	$31
21	Release 2	Mar 2029	Apr 2030	Mar 2032	$4,530
22	**Total**				**$4,561**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
23	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
24	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
25	Release 1 Benefit	$2	$15	$29	$31	$31	$31	$31	$31	$31	$31	$31	$31
26	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
27	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
28	Release 2 Benefit	$0	$0	$708	$2,925	$4,483	$4,530	$4,530	$4,530	$4,530	$4,530	$4,530	$4,530
29	**Annual Benefit, Selected Role**	**$2**	**$15**	**$737**	**$2,957**	**$4,514**	**$4,561**	**$4,561**	**$4,561**	**$4,561**	**$4,561**	**$4,561**	**$4,561**
30	**Cumulative, Selected Role**	**$2**	**$17**	**$753**	**$3,710**	**$8,224**	**$12,785**	**$17,346**	**$21,907**	**$26,468**	**$31,029**	**$35,590**	**$40,152**

ANNUAL BENEFIT, ALL ROLES — Each release's annual amount at run rate, multiplied by the Ramp % for that year.

	Role	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
31	Designer	$2	$15	$737	$2,957	$4,514	$4,561	$4,561	$4,561	$4,561	$4,561	$4,561	$4,561
32	**Total**	**$2**	**$15**	**$737**	**$2,957**	**$4,514**	**$4,561**	**$4,561**	**$4,561**	**$4,561**	**$4,561**	**$4,561**	**$4,561**
33	**Cumulative, all roles**	**$2**	**$17**	**$753**	**$3,710**	**$8,224**	**$12,785**	**$17,346**	**$21,907**	**$26,468**	**$31,029**	**$35,590**	**$40,152**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
34	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
35	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
36	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

CAPITAL BENEFIT BY ROLE

37	Designer	$1	$8	$580	$2,355	$3,600	$3,637	$3,637	$3,637	$3,637	$3,637	$3,637	$3,637
38	**Total**	**$1**	**$8**	**$580**	**$2,355**	**$3,600**	**$3,637**	**$3,637**	**$3,637**	**$3,637**	**$3,637**	**$3,637**	**$3,637**

EXPENSE BENEFIT BY ROLE

39	Designer	$0	$4	$77	$296	$450	$454	$454	$454	$454	$454	$454	$454
40	**Total**	**$0**	**$4**	**$77**	**$296**	**$450**	**$454**	**$454**	**$454**	**$454**	**$454**	**$454**	**$454**

NON-EARNINGS EXPENSE BENEFIT BY ROLE

41	Designer	$0	$4	$79	$306	$464	$469	$469	$469	$469	$469	$469	$469
42	**Total**	**$0**	**$4**	**$79**	**$306**	**$464**	**$469**	**$469**	**$469**	**$469**	**$469**	**$469**	**$469**

ESCALATED ANNUAL BENEFIT BY ROLE

43	Designer	$2	$17	$853	$3,488	$5,428	$5,594	$5,709	$5,826	$5,945	$6,067	$6,192	$6,319
44	**Total**	**$2**	**$17**	**$853**	**$3,488**	**$5,428**	**$5,594**	**$5,709**	**$5,826**	**$5,945**	**$6,067**	**$6,192**	**$6,319**
45	**Escalated cumulative, all roles**	**$2**	**$19**	**$872**	**$4,361**	**$9,789**	**$15,383**	**$21,092**	**$26,918**	**$32,863**	**$38,930**	**$45,122**	**$51,442**
46	**Escalated Annual Benefit, Selected Role**	**$2**	**$17**	**$853**	**$3,488**	**$5,428**	**$5,594**	**$5,709**	**$5,826**	**$5,945**	**$6,067**	**$6,192**	**$6,319**
47	**Escalated Cumulative, Selected Role**	**$2**	**$19**	**$872**	**$4,361**	**$9,789**	**$15,383**	**$21,092**	**$26,918**	**$32,863**	**$38,930**	**$45,122**	**$51,442**

48	Peak annual Benefit, all roles, as modeled	$4,561	The highest year on the Total row of the schedule above.
49	**Peak annual Benefit, all roles, escalated**	**$6,319**	The highest year on the escalated Total row. Escalation can move which year that is, so this is not simply the peak above times one rate.
50	**Uplift on peak**	**38.55%**	

Workpaper 3-13D
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Enhanced Design Management & Drawing Tools External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Enhanced Design Management / Drawing Tools
Scope	**External Labor**

GLOSSARY

Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Three factors apply in Step 4: E1, E2, and E3, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the planned improvement. Set by role and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
Material or Services	Identifies whether the commodity code represents goods or services. External labor benefits apply to services.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.
Traceability	All external labor benefits trace to an identifiable commodity code and role. This describes how precisely the spend can be traced, not overhead loading; internal labor includes management overhead and benefits overhead in its spend base; external labor does not.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-13E
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Enhanced Design Management & Drawing Tools Internal Labor

A. CONFIDENCE RATES

Line No.		Direct Time	Management OH	Benefits OH	Notes
1	Starting Realization Rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization Rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	Confidence Factor (Realization × Exclusivity %)	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. EROSION FACTOR BY ROLE

	Role	Erosion Factor - Capital	Erosion Factor - Expense Incl. NEE	Combined Erosion Factor
6	Designer	69.50%	69.50%	69.50%
7	Estimator	69.50%	69.50%	69.50%

Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It can be set by role and operating area.

C. IMPROVEMENT RANGE %[1] BY ROLE AND OPERATING AREA

	Role	Operating Area	Improvement Range %[1]
8	Designer	Gas Distribution	20.00%
9	Designer	Electric General	20.00%
10	Designer	Substation	20.00%
11	Designer	Gas Transmission	35.00%
12	Designer	Power Generation	5.00%
13	Estimator	Electric Distribution	20.00%
14	Estimator	Gas Distribution	20.00%
15	Estimator	Electric General	20.00%
16	Estimator	Gas Transmission	35.00%
17	Estimator	Gas Facilities	35.00%

Note: Benchmark improvement rate applied to the underlying General Ledger spend. Where multiple rates apply to a role and operating area, they are averaged based on the share of addressable spend at each rate.

D. ADOPTION SCHEDULE

			Notes
18	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
19	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
20	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. KEY DESIGN DECISION (KDD) BENEFITS

	Role	Gross Benefit - Capital	Gross Benefit - Expense Incl. NEE
21	Designer	$10,453	$1,982
22	Estimator	$17,730	$1,268

Notes: Additional benefits from a Graphical Work Design KDD were identified to be incremental to this value driver. The Benefit is applied to both roles.

Note: benefit the model carries for these roles outside the General Ledger extract, so it cannot be built from spend rows.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
18	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
19	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
22	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-13F
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Enhanced Design Management & Drawing Tools External Labor

Assumptions & Reference Rates

External Labor Efficiencies - contractors performing work equivalent to an internal role benefit from the same standard processes, mobile tooling and work-model simplification.

Line No.	A. CONFIDENCE RATES		Notes
1	Starting realization rate	25.00%	External labor starts at 25% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION - GLOBAL		
6	E1 - Value Driver scope	Per role - see section C	Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It can be set by role and operating area.
7	E2 - Nuclear Generation	0.00%	No role-based benefits are applied to Nuclear Generation. Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
8	E3 - Mobile As-Builts	Per role - see section C	Takes out the share of the benefit that the Mobile As-Builts initiative already claims, so the same saving is not counted twice. The allocation reaches engineering roles only, so it is carried per role in section C rather than as a single global figure. A role showing 1.0000 carries no Mobile As-Builts adjustment.

C. ROLE RATES AND EROSION

Line No.	Role	Improvement Range %[1]	E1 - Value Driver scope	E3 - Mobile As-Builts	
9	Field Technician	27.62%	99.84%	100.00%	Improvement Range % is the role's "Shared Services" benchmark, the same benchmark the internal labor model uses for that role. Internal labor applies it org by org; here it is one blended figure across the role's whole spend, because contractor spend is not broken out by org the way payroll is.
10	Inspector	20.00%	99.84%	100.00%	
11	Designer	20.62%	69.50%	100.00%	
12	Engineer	20.00%	100.00%	82.00%	
13	GIS Tech	34.68%	100.00%	100.00%	
14	Project Manager	20.00%	100.00%	100.00%	

D. ADOPTION SCHEDULE

15	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
16	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
17	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
18	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
19	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
22	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Effective Project Management Reconciliation

WP#	Workpaper Name
	Summary WPs
3-14	Testimony Table
3-14A	Effective Project Management Reconciliation Summary
	Detail Role WPs
3-14B	Project Manager - Effective Project Management Reconciliation Internal Labor Benefit Walkthrough
3-14C	Performance Analyst - Effective Project Management Reconciliation Internal Labor Benefit Walkthrough
3-14D	Reporting Analyst - Effective Project Management Reconciliation Internal Labor Benefit Walkthrough
3-14E	New Business Representative - Effective Project Management Reconciliation Internal Labor Benefit Walkthrough
3-14F	External Labor - Effective Project Management Reconciliation Internal Labor Benefit Walkthrough
	Assumptions & Reference Rates WPs
3-14G	Assumptions & Reference Rates - Effective Project Management Reconciliation Internal Labor
3-14H	Assumptions & Reference Rates - Effective Project Management Reconciliation External Labor

Workpaper 3-14
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-37
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$6,434.7**

Workpaper 3-14A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Effective Project Management Reconciliation
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Calculation Method	Role-based

DEFINITION

Internal efficiencies applied to specific roles involved in generating, managing, and tracking projects and programs. Consolidation of estimation, budgeting, governance approvals, and performance reporting into connected systems, with a single project structure (WBS) as the backbone linking what was planned, approved, spent, and forecasted, eliminates manual reconciliation between disconnected tools and reduces time spent assembling project status across multiple systems.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense	Net Benefit (Post-Erosion)
	Internal Labor						
1	Project Manager	$6,540	$754	$7,294	$9,309	$1,073	$10,383
2	Performance Analyst	$1,911	$396	$2,307	$2,770	$574	$3,344
3	Reporting Analyst	$59	$102	$162	$97	$167	$264
4	New Business Representative	$208	$102	$310	$314	$154	$468
5	**Subtotal: Internal Labor**	**$8,718**	**$1,354**	**$10,072**	**$12,491**	**$1,968**	**$14,458**
6	**External Labor**	**$1,010**	**$18**	**$1,028**	**$1,398**	**$24**	**$1,422**
7	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
8	**TOTAL VALUE DRIVER BENEFIT**	**$9,729**	**$1,372**	**$11,100**	**$13,888**	**$1,992**	**$15,880**
9	**Peak Annual Benefit, Un-escalated**	**$11,100**					
10	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
11	Internal labor - Project Manager	$38	$352	$988	$2,450	$5,263	$7,135	$7,294	$7,294	$7,294	$7,294	$7,294	$7,294	$59,993
12	Internal labor - Performance Analyst	$0	$0	$0	$224	$1,297	$2,226	$2,307	$2,307	$2,307	$2,307	$2,307	$2,307	$17,587
13	Internal labor - Reporting Analyst	$0	$0	$0	$16	$91	$156	$162	$162	$162	$162	$162	$162	$1,234
14	Internal labor - New Business Representative	$0	$0	$17	$90	$221	$303	$310	$310	$310	$310	$310	$310	$2,489
15	**Subtotal: Internal Labor**	**$38**	**$352**	**$1,005**	**$2,780**	**$6,873**	**$9,820**	**$10,072**	**$10,072**	**$10,072**	**$10,072**	**$10,072**	**$10,072**	**$81,303**
16	External labor	$0	$0	$161	$664	$1,017	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028	$9,036
17	**TOTAL: ALL COMPONENTS**	**$38**	**$352**	**$1,166**	**$3,444**	**$7,890**	**$10,848**	**$11,100**	**$11,100**	**$11,100**	**$11,100**	**$11,100**	**$11,100**	**$90,339**
18	Capital	$35	$320	$1,072	$3,137	$7,001	$9,515	$9,729	$9,729	$9,729	$9,729	$9,729	$9,729	$79,452
19	Expense incl. NEE	$3	$32	$94	$307	$889	$1,333	$1,372	$1,372	$1,372	$1,372	$1,372	$1,372	$10,888
20	**CUMULATIVE**	**$38**	**$390**	**$1,556**	**$5,000**	**$12,890**	**$23,738**	**$34,838**	**$45,938**	**$57,039**	**$68,139**	**$79,239**	**$90,339**	
21	**CUMULATIVE BENEFITS**	**$90,339**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
22	Internal labor - Project Manager	$43	$405	$1,157	$2,926	$6,423	$8,898	$9,298	$9,504	$9,716	$9,933	$10,155	$10,383	$78,843
23	Internal labor - Performance Analyst	$0	$0	$0	$270	$1,599	$2,806	$2,975	$3,045	$3,117	$3,191	$3,267	$3,344	$23,614
24	Internal labor - Reporting Analyst	$0	$0	$0	$20	$119	$211	$225	$232	$240	$247	$255	$264	$1,814
25	Internal labor - New Business Representative	$0	$0	$20	$110	$278	$391	$410	$421	$432	$444	$456	$468	$3,430
26	External labor	$0	$0	$186	$785	$1,224	$1,261	$1,286	$1,312	$1,339	$1,366	$1,394	$1,422	$11,576
27	**TOTAL, ALL COMPONENTS, ESCALATED**	**$43**	**$405**	**$1,364**	**$4,112**	**$9,644**	**$13,567**	**$14,195**	**$14,515**	**$14,844**	**$15,181**	**$15,527**	**$15,880**	**$119,277**
28	Capital	$39	$366	$1,245	$3,709	$8,430	$11,676	$12,177	$12,422	$12,673	$12,929	$13,190	$13,456	$102,311
29	Expense incl. NEE	$4	$39	$119	$403	$1,214	$1,891	$2,018	$2,093	$2,171	$2,253	$2,337	$2,424	$16,966
30	**Cumulative, escalated**	**$43**	**$448**	**$1,812**	**$5,924**	**$15,567**	**$29,134**	**$43,329**	**$57,844**	**$72,689**	**$87,870**	**$103,397**	**$119,277**	

Workpaper 3-14B
Pacific Gas and Electric Company
ERP and GIS Transformation
Project Manager - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Project Manager**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$10,747	$1,359	$9,271	$665	$5,508	$53	$25,526	$2,077
2	Gas Distribution	$349	$0	$385	$0	$165	$0	$899	$0
3	Electric General	$9,251	$1,390	$7,178	$645	$4,457	$23	$20,885	$2,058
4	Substation	$4,604	$275	$3,716	$110	$2,371	$0	$10,691	$385
5	Shared Services	$2,922	$1,310	$2,959	$630	$1,391	$0	$7,272	$1,940
6	Gas Transmission	$5,077	$1,464	$5,576	$877	$2,492	$0	$13,144	$2,341
7	Power Generation	$5,378	$587	$967	$241	$2,542	$0	$8,887	$828
8	Electric Transmission	$983	$32	$264	$3	$518	$0	$1,764	$35
9	Gas General	$1,812	$39	$1,983	$19	$866	$0	$4,661	$58
10	Gas Facilities	$458	$0	$424	$0	$268	$0	$1,150	$0
11	**TOTAL**	**$41,579**	**$6,455**	**$32,722**	**$3,191**	**$20,577**	**$76**	**$94,878**	**$9,722**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
12		Direct Time	$10,747	$1,359	20.00%	$2,149	$272
13	Electric Distribution	Management OH	$9,271	$665	20.00%	$1,854	$133
14		Benefits OH	$5,508	$53	20.00%	$1,102	$11
15		**Electric Distribution Total**	**$25,526**	**$2,077**	**20.00%**	**$5,105**	**$415**
16		Direct Time	$349	$0	20.00%	$70	$0
17	Gas Distribution	Management OH	$385	$0	20.00%	$77	$0
18		Benefits OH	$165	$0	20.00%	$33	$0
19		**Gas Distribution Total**	**$899**	**$0**	**20.00%**	**$180**	**$0**
20		Direct Time	$9,251	$1,390	20.00%	$1,850	$278
21	Electric General	Management OH	$7,178	$645	20.00%	$1,436	$131
22		Benefits OH	$4,457	$23	20.00%	$891	$5
23		**Electric General Total**	**$20,885**	**$2,058**	**20.01%**	**$4,177**	**$413**
24		Direct Time	$4,604	$275	20.00%	$921	$55
25	Substation	Management OH	$3,716	$110	20.00%	$743	$22
26		Benefits OH	$2,371	$0	20.00%	$474	$0
27		**Substation Total**	**$10,691**	**$385**	**20.00%**	**$2,138**	**$77**
28		Direct Time	$2,922	$1,310	20.00%	$584	$262
29	Shared Services	Management OH	$2,959	$630	20.00%	$592	$126
30		Benefits OH	$1,391	$0	20.00%	$278	$0
31		**Shared Services Total**	**$7,272**	**$1,940**	**20.00%**	**$1,454**	**$388**
32		Direct Time	$5,077	$1,464	20.00%	$1,015	$293
33	Gas Transmission	Management OH	$5,576	$877	20.00%	$1,115	$175
34		Benefits OH	$2,492	$0	20.00%	$498	$0
35		**Gas Transmission Total**	**$13,144**	**$2,341**	**20.00%**	**$2,629**	**$468**
36		Direct Time	$5,378	$587	20.00%	$1,076	$117
37	Power Generation	Management OH	$967	$241	20.00%	$193	$53
38		Benefits OH	$2,542	$0	20.00%	$508	$0
39		**Power Generation Total**	**$8,887**	**$828**	**20.05%**	**$1,777**	**$170**
40		Direct Time	$983	$32	20.00%	$197	$6
41	Electric Transmission	Management OH	$264	$3	20.00%	$53	$1
42		Benefits OH	$518	$0	20.00%	$104	$0
43		**Electric Transmission Total**	**$1,764**	**$35**	**20.00%**	**$353**	**$7**
44		Direct Time	$1,812	$39	20.00%	$362	$8
45	Gas General	Management OH	$1,983	$19	20.00%	$397	$4
46		Benefits OH	$866	$0	20.00%	$173	$0
47		**Gas General Total**	**$4,661**	**$58**	**20.00%**	**$932**	**$12**
48		Direct Time	$458	$0	20.00%	$92	$0
49	Gas Facilities	Management OH	$424	$0	20.00%	$85	$0
50		Benefits OH	$268	$0	20.00%	$54	$0
51		**Gas Facilities Total**	**$1,150**	**$0**	**20.00%**	**$230**	**$0**
52		**TOTAL**	**$94,878**	**$9,722**	**20.01%**	**$18,976**	**$1,951**

Workpaper 3-14B
Pacific Gas and Electric Company
ERP and GIS Transformation
Project Manager - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Project Manager**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factc**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
53		Direct Time	$2,149	$272	60.00%	75.00%	45.00%	$967	$122
54	Electric Distribution	Management OH	$1,854	$133	35.00%	75.00%	26.25%	$487	$35
55		Benefits OH	$1,102	$11	35.00%	75.00%	26.25%	$289	$3
56		**Electric Distribution Total**	**$5,105**	**$415**			**34.47%**	**$1,743**	**$160**
57		Direct Time	$70	$0	60.00%	75.00%	45.00%	$31	$0
58	Gas Distribution	Management OH	$77	$0	35.00%	75.00%	26.25%	$20	$0
59		Benefits OH	$33	$0	35.00%	75.00%	26.25%	$9	$0
60		**Gas Distribution Total**	**$180**	**$0**			**33.52%**	**$60**	**$0**
61		Direct Time	$1,850	$278	60.00%	75.00%	45.00%	$833	$125
62	Electric General	Management OH	$1,436	$131	35.00%	75.00%	26.25%	$377	$34
63		Benefits OH	$891	$5	35.00%	75.00%	26.25%	$234	$1
64		**Electric General Total**	**$4,177**	**$413**			**34.94%**	**$1,443**	**$161**
65		Direct Time	$921	$55	60.00%	75.00%	45.00%	$414	$25
66	Substation	Management OH	$743	$22	35.00%	75.00%	26.25%	$195	$6
67		Benefits OH	$474	$0	35.00%	75.00%	26.25%	$125	$0
68		**Substation Total**	**$2,138**	**$77**			**34.51%**	**$734**	**$31**
69		Direct Time	$584	$262	60.00%	75.00%	45.00%	$263	$118
70	Shared Services	Management OH	$592	$126	35.00%	75.00%	26.25%	$155	$33
71		Benefits OH	$278	$0	35.00%	75.00%	26.25%	$73	$0
72		**Shared Services Total**	**$1,454**	**$388**			**34.86%**	**$491**	**$151**
73		Direct Time	$1,015	$293	60.00%	75.00%	45.00%	$457	$132
74	Gas Transmission	Management OH	$1,115	$175	35.00%	75.00%	26.25%	$293	$46
75		Benefits OH	$498	$0	35.00%	75.00%	26.25%	$131	$0
76		**Gas Transmission Total**	**$2,629**	**$468**			**34.17%**	**$880**	**$178**
77		Direct Time	$1,076	$117	60.00%	75.00%	45.00%	$484	$53
78	Power Generation	Management OH	$193	$53	35.00%	75.00%	26.25%	$51	$14
79		Benefits OH	$508	$0	35.00%	75.00%	26.25%	$133	$0
80		**Power Generation Total**	**$1,777**	**$170**			**37.74%**	**$668**	**$67**
81		Direct Time	$197	$6	60.00%	75.00%	45.00%	$88	$3
82	Electric Transmission	Management OH	$53	$1	35.00%	75.00%	26.25%	$14	$0
83		Benefits OH	$104	$0	35.00%	75.00%	26.25%	$27	$0
84		**Electric Transmission Total**	**$353**	**$7**			**36.83%**	**$129**	**$3**
85		Direct Time	$362	$8	60.00%	75.00%	45.00%	$163	$3
86	Gas General	Management OH	$397	$4	35.00%	75.00%	26.25%	$104	$1
87		Benefits OH	$173	$0	35.00%	75.00%	26.25%	$45	$0
88		**Gas General Total**	**$932**	**$12**			**33.60%**	**$313**	**$5**
89		Direct Time	$92	$0	60.00%	75.00%	45.00%	$41	$0
90	Gas Facilities	Management OH	$85	$0	35.00%	75.00%	26.25%	$22	$0
91		Benefits OH	$54	$0	35.00%	75.00%	26.25%	$14	$0
92		**Gas Facilities Total**	**$230**	**$0**			**33.72%**	**$78**	**$0**
93		**TOTAL**	**$18,976**	**$1,951**			**34.86%**	**$6,540**	**$754**
94	**PRE-EROSION NET BENEFIT**		**$6,540**	**$754**	**$7,294**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
95	Pre-Erosion Net	$6,540	$754	$7,294
96	Erosion Factor	100.00%	100.00%	100.00%
97	Net Benefits	$6,540	$754	$7,294
98	**NET BENEFIT (POST-EROSION)**	**$7,294**		
99	**Capital**	**$6,540**		**89.66%**
100	**Expense incl. NEE**	**$754**		**10.34%**

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Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Project Manager**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
101	Release 1	Jul 2027	Aug 2028	Jul 2030	$735	$668	$34
102	Release 2	Mar 2029	Apr 2030	Mar 2032	$1,963	$1,803	$97
103	Release 3	May 2030	Jun 2031	May 2033	$4,596	$4,069	$314
104	**Total**				**$7,294**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $734,870 = $38,274.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
105	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
106	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
107	Release 1	$38	$352	$681	$735	$735	$735	$735	$735	$735	$735	$735	$735
108	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
109	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
110	Release 2	$0	$0	$307	$1,268	$1,943	$1,963	$1,963	$1,963	$1,963	$1,963	$1,963	$1,963
111	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
112	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
113	Release 3	$0	$0	$0	$447	$2,585	$4,437	$4,596	$4,596	$4,596	$4,596	$4,596	$4,596
114	**Annual Benefit**	**$38**	**$352**	**$988**	**$2,450**	**$5,263**	**$7,135**	**$7,294**	**$7,294**	**$7,294**	**$7,294**	**$7,294**	**$7,294**
115	**CUMULATIVE**	**$38**	**$390**	**$1,378**	**$3,828**	**$9,091**	**$16,226**	**$23,521**	**$30,815**	**$38,110**	**$45,404**	**$52,699**	**$59,993**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
116	Capital Benefit	$35	$320	$901	$2,228	$4,742	$6,399	$6,540	$6,540	$6,540	$6,540	$6,540	$6,540
117	Expense Benefit	$2	$16	$40	$94	$215	$301	$309	$309	$309	$309	$309	$309
118	Non-earnings Expense Benefit	$2	$16	$47	$128	$307	$435	$445	$445	$445	$445	$445	$445
119	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
120	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
121	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
122	**Escalated Annual Benefit**	**$43**	**$405**	**$1,157**	**$2,926**	**$6,423**	**$8,898**	**$9,298**	**$9,504**	**$9,716**	**$9,933**	**$10,155**	**$10,383**
123	**Escalated Cumulative**	**$43**	**$448**	**$1,605**	**$4,531**	**$10,955**	**$19,853**	**$29,151**	**$38,655**	**$48,371**	**$58,305**	**$68,460**	**$78,843**

124	Peak annual Benefit, as modeled	$7,294	The highest year on the Annual Benefit row above.
125	**Peak annual Benefit, escalated**	**$10,383**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
126	**Uplift on peak**	**42.34%**	The % increase of peak annual Benefit due to escalation.

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Value Driver	Effective Project Management Reconciliation
Role	**Project Manager**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14C
Pacific Gas and Electric Company
ERP and GIS Transformation
Performance Analyst - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Performance Analyst**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric General	$6,803	$998	$6,451	$425	$3,437	$0	$16,691	$1,423
2	Shared Services	$315	$659	$299	$26	$146	$0	$761	$685
3	Gas Transmission	$0	$116	$0	$64	$0	$0	$0	$180
4	Electric Transmission	$109	$0	$102	$0	$60	$0	$271	$0
5	Gas General	$1,517	$442	$1,646	$261	$719	$0	$3,881	$704
6	Gas Facilities	$55	$357	$60	$206	$28	$0	$143	$563
7	**TOTAL**	**$8,799**	**$2,572**	**$8,558**	**$982**	**$4,389**	**$0**	**$21,747**	**$3,555**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
8		Direct Time	$6,803	$998	25.77%	$1,753	$257
9	Electric General	Management OH	$6,451	$425	25.77%	$1,662	$109
10		Benefits OH	$3,437	$0	25.77%	$886	$0
11		**Electric General Total**	**$16,691**	**$1,423**	**25.77%**	**$4,301**	**$367**
12		Direct Time	$315	$659	25.83%	$81	$170
13	Shared Services	Management OH	$299	$26	25.83%	$77	$24
14		Benefits OH	$146	$0	25.83%	$38	$0
15		**Shared Services Total**	**$761**	**$685**	**27.04%**	**$197**	**$194**
16		Direct Time	$0	$116	35.00%	$0	$41
17	Gas Transmission	Management OH	$0	$64	35.00%	$0	$22
18		Benefits OH	$0	$0	35.00%	$0	$0
19		**Gas Transmission Total**	**$0**	**$180**	**35.00%**	**$0**	**$63**
20		Direct Time	$109	$0	35.00%	$38	$0
21	Electric Transmission	Management OH	$102	$0	35.00%	$36	$0
22		Benefits OH	$60	$0	35.00%	$21	$0
23		**Electric Transmission Total**	**$271**	**$0**	**35.00%**	**$95**	**$0**
24		Direct Time	$1,517	$442	25.87%	$392	$114
25	Gas General	Management OH	$1,646	$261	25.87%	$426	$68
26		Benefits OH	$719	$0	25.87%	$186	$0
27		**Gas General Total**	**$3,881**	**$704**	**25.87%**	**$1,004**	**$182**
28		Direct Time	$55	$357	35.00%	$19	$125
29	Gas Facilities	Management OH	$60	$206	35.00%	$21	$72
30		Benefits OH	$28	$0	35.00%	$10	$0
31		**Gas Facilities Total**	**$143**	**$563**	**35.00%**	**$50**	**$197**
32		**TOTAL**	**$21,747**	**$3,555**	**26.28%**	**$5,647**	**$1,003**

Workpaper 3-14C
Pacific Gas and Electric Company
ERP and GIS Transformation
Performance Analyst - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Performance Analyst**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rat**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
33		Direct Time	$1,753	$257	60.00%	75.00%	45.00%	$789	$116
34	Electric General	Management OH	$1,662	$109	35.00%	75.00%	26.25%	$436	$29
35		Benefits OH	$886	$0	35.00%	75.00%	26.25%	$232	$0
36		**Electric General Total**	**$4,301**	**$367**			**34.33%**	**$1,458**	**$144**
37		Direct Time	$81	$170	60.00%	75.00%	45.00%	$37	$77
38	Shared Services	Management OH	$77	$24	35.00%	75.00%	26.25%	$20	$6
39		Benefits OH	$38	$0	35.00%	75.00%	26.25%	$10	$0
40		**Shared Services Total**	**$197**	**$194**			**38.32%**	**$67**	**$83**
41		Direct Time	$0	$41	60.00%	75.00%	45.00%	$0	$18
42	Gas Transmission	Management OH	$0	$22	35.00%	75.00%	26.25%	$0	$6
43		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
44		**Gas Transmission Total**	**$0**	**$63**			**38.36%**	**$0**	**$24**
45		Direct Time	$38	$0	60.00%	75.00%	45.00%	$17	$0
46	Electric Transmission	Management OH	$36	$0	35.00%	75.00%	26.25%	$9	$0
47		Benefits OH	$21	$0	35.00%	75.00%	26.25%	$5	$0
48		**Electric Transmission Total**	**$95**	**$0**			**33.82%**	**$32**	**$0**
49		Direct Time	$392	$114	60.00%	75.00%	45.00%	$177	$51
50	Gas General	Management OH	$426	$68	35.00%	75.00%	26.25%	$112	$18
51		Benefits OH	$186	$0	35.00%	75.00%	26.25%	$49	$0
52		**Gas General Total**	**$1,004**	**$182**			**34.26%**	**$337**	**$69**
53		Direct Time	$19	$125	60.00%	75.00%	45.00%	$9	$56
54	Gas Facilities	Management OH	$21	$72	35.00%	75.00%	26.25%	$6	$19
55		Benefits OH	$10	$0	35.00%	75.00%	26.25%	$3	$0
56		**Gas Facilities Total**	**$50**	**$197**			**37.18%**	**$17**	**$75**
57		**TOTAL**	**$5,647**	**$1,003**			**34.69%**	**$1,911**	**$396**
58	**PRE-EROSION NET BENEFIT**		**$1,911**	**$396**	**$2,307**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
59	Pre-Erosion Net	$1,911	$396	$2,307
60	Erosion Factor	100.00%	100.00%	100.00%
61	Net Benefits	$1,911	$396	$2,307
62	**NET BENEFIT (POST-EROSION)**	**$2,307**		
63	**Capital**	**$1,911**		**82.83%**
64	**Expense incl. NEE**	**$396**		**17.17%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Start**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**	**Capital**	**Non-earnings expense**
65	Release 1	Jul 2027	Aug 2028	Jul 2030	$0	$0	$0
66	Release 3	May 2030	Jun 2031	May 2033	$2,307	$1,911	$208
67	**Total**				**$2,307**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $0 = $0.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
68	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
69	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
70	Release 1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
71	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
72	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
73	Release 3	$0	$0	$0	$224	$1,297	$2,226	$2,307	$2,307	$2,307	$2,307	$2,307	$2,307
74	**Annual Benefit**	**$0**	**$0**	**$0**	**$224**	**$1,297**	**$2,226**	**$2,307**	**$2,307**	**$2,307**	**$2,307**	**$2,307**	**$2,307**
75	**CUMULATIVE**	**$0**	**$0**	**$0**	**$224**	**$1,522**	**$3,748**	**$6,055**	**$8,361**	**$10,668**	**$12,974**	**$15,281**	**$17,587**

Workpaper 3-14C
Pacific Gas and Electric Company
ERP and GIS Transformation
Performance Analyst - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Performance Analyst**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
76	Capital Benefit	$0	$0	$0	$186	$1,075	$1,844	$1,911	$1,911	$1,911	$1,911	$1,911	$1,911
77	Expense Benefit	$0	$0	$0	$18	$106	$182	$188	$188	$188	$188	$188	$188
78	Non-earnings Expense Benefit	$0	$0	$0	$20	$117	$200	$208	$208	$208	$208	$208	$208
79	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
80	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
81	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
82	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$270**	**$1,599**	**$2,806**	**$2,975**	**$3,045**	**$3,117**	**$3,191**	**$3,267**	**$3,344**
83	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$270**	**$1,869**	**$4,676**	**$7,651**	**$10,696**	**$13,813**	**$17,004**	**$20,270**	**$23,614**

84	Peak annual Benefit, as modeled	$2,307	The highest year on the Annual Benefit row above.
85	**Peak annual Benefit, escalated**	**$3,344**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
86	**Uplift on peak**	**44.99%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14D
Pacific Gas and Electric Company
ERP and GIS Transformation
Reporting Analyst - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Reporting Analyst**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric General	$507	$648	$35	$37	$228	$0	$770	$686
2	Gas Facilities	$0	$195	$0	$112	$0	$0	$0	$308
3	**TOTAL**	**$507**	**$843**	**$35**	**$150**	**$228**	**$0**	**$770**	**$993**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*
		Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
4		Direct Time	$507	$648	20.00%	$101	$130
5	Electric General	Management OH	$35	$37	20.00%	$7	$11
6		Benefits OH	$228	$0	20.00%	$46	$0
7		**Electric General Total**	**$770**	**$686**	**20.25%**	**$154**	**$141**
8		Direct Time	$0	$195	35.00%	$0	$68
9	Gas Facilities	Management OH	$0	$112	35.00%	$0	$39
10		Benefits OH	$0	$0	35.00%	$0	$0
11		**Gas Facilities Total**	**$0**	**$308**	**35.00%**	**$0**	**$108**
12		**TOTAL**	**$770**	**$993**	**22.82%**	**$154**	**$248**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
		Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
13		Direct Time	$101	$130	60.00%	75.00%	45.00%	$46	$58
14	Electric General	Management OH	$7	$11	35.00%	75.00%	26.25%	$2	$3
15		Benefits OH	$46	$0	35.00%	75.00%	26.25%	$12	$0
16		**Electric General Total**	**$154**	**$141**			**40.95%**	**$59**	**$61**
17		Direct Time	$0	$68	60.00%	75.00%	45.00%	$0	$31
18	Gas Facilities	Management OH	$0	$39	35.00%	75.00%	26.25%	$0	$10
19		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
20		**Gas Facilities Total**	**$0**	**$108**			**38.15%**	**$0**	**$41**
21		**TOTAL**	**$154**	**$248**			**40.20%**	**$59**	**$102**
22	**PRE-EROSION NET BENEFIT**		**$59**	**$102**	**$162**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
23	Pre-Erosion Net	$59	$102	$162
24	Erosion Factor	100.00%	100.00%	100.00%
25	Net Benefits	$59	$102	$162
26	**NET BENEFIT (POST-EROSION)**	**$162**		
27	**Capital**	**$59**		**36.75%**
28	**Expense incl. NEE**	**$102**		**63.25%**

Workpaper 3-14D
Pacific Gas and Electric Company
ERP and GIS Transformation
Reporting Analyst - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**Reporting Analyst**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
29	Release 3	May 2030	Jun 2031	May 2033	$162	$59	$53
30	**Total**				**$162**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $161,795 = $15,730.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
31	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
32	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
33	Release 3	$0	$0	$0	$16	$91	$156	$162	$162	$162	$162	$162	$162
34	**Annual Benefit**	**$0**	**$0**	**$0**	**$16**	**$91**	**$156**	**$162**	**$162**	**$162**	**$162**	**$162**	**$162**
35	**CUMULATIVE**	**$0**	**$0**	**$0**	**$16**	**$107**	**$263**	**$425**	**$587**	**$748**	**$910**	**$1,072**	**$1,234**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
36	Capital Benefit	$0	$0	$0	$6	$33	$57	$59	$59	$59	$59	$59	$59
37	Expense Benefit	$0	$0	$0	$5	$28	$48	$49	$49	$49	$49	$49	$49
38	Non-earnings Expense Benefit	$0	$0	$0	$5	$30	$51	$53	$53	$53	$53	$53	$53
39	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
40	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
41	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
42	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$20**	**$119**	**$211**	**$225**	**$232**	**$240**	**$247**	**$255**	**$264**
43	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$20**	**$139**	**$350**	**$575**	**$808**	**$1,047**	**$1,295**	**$1,550**	**$1,814**

44	Peak annual Benefit, as modeled	$162	The highest year on the Annual Benefit row above.
45	**Peak annual Benefit, escalated**	**$264**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
46	**Uplift on peak**	**62.91%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14E
Pacific Gas and Electric Company
ERP and GIS Transformation
New Business Representative - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**New Business Representative**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$1,366	$488	$1,569	$324	$686	$9	$3,621	$821
2	Gas Distribution	$705	$512	-$57	$104	$305	$1	$953	$618
3	Electric General	$2,720	$58	$3,222	$43	$1,363	$0	$7,305	$102
4	Shared Services	$126	$2,964	$109	$356	$59	$0	$294	$3,321
5	**TOTAL**	**$4,917**	**$4,023**	**$4,843**	**$827**	**$2,413**	**$11**	**$12,173**	**$4,861**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
6		Direct Time	$1,366	$488	5.00%	$68	$24
7	Electric Distribution	Management OH	$1,569	$324	5.00%	$78	$16
8		Benefits OH	$686	$9	5.00%	$34	$0
9		**Electric Distribution Total**	**$3,621**	**$821**	**5.00%**	**$181**	**$41**
10		Direct Time	$705	$512	5.00%	$35	$26
11	Gas Distribution	Management OH	-$57	$104	5.00%	$5	$6
12		Benefits OH	$305	$1	5.00%	$15	$0
13		**Gas Distribution Total**	**$953**	**$618**	**5.55%**	**$56**	**$31**
14		Direct Time	$2,720	$58	5.00%	$136	$3
15	Electric General	Management OH	$3,222	$43	5.00%	$161	$2
16		Benefits OH	$1,363	$0	5.00%	$68	$0
17		**Electric General Total**	**$7,305**	**$102**	**5.00%**	**$365**	**$5**
18		Direct Time	$126	$2,964	5.00%	$6	$148
19	Shared Services	Management OH	$109	$356	5.00%	$5	$18
20		Benefits OH	$59	$0	5.00%	$3	$0
21		**Shared Services Total**	**$294**	**$3,321**	**5.00%**	**$15**	**$166**
22		**TOTAL**	**$12,173**	**$4,861**	**5.05%**	**$617**	**$244**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
23		Direct Time	$68	$24	60.00%	75.00%	45.00%	$31	$11
24	Electric Distribution	Management OH	$78	$16	35.00%	75.00%	26.25%	$21	$4
25		Benefits OH	$34	$0	35.00%	75.00%	26.25%	$9	$0
26		**Electric Distribution Total**	**$181**	**$41**			**34.08%**	**$60**	**$15**
27		Direct Time	$35	$26	60.00%	75.00%	45.00%	$16	$12
28	Gas Distribution	Management OH	$5	$6	35.00%	75.00%	26.25%	$1	$2
29		Benefits OH	$15	$0	35.00%	75.00%	26.25%	$4	$0
30		**Gas Distribution Total**	**$56**	**$31**			**39.35%**	**$21**	**$13**
31		Direct Time	$136	$3	60.00%	75.00%	45.00%	$61	$1
32	Electric General	Management OH	$161	$2	35.00%	75.00%	26.25%	$42	$1
33		Benefits OH	$68	$0	35.00%	75.00%	26.25%	$18	$0
34		**Electric General Total**	**$365**	**$5**			**33.28%**	**$121**	**$2**
35		Direct Time	$6	$148	60.00%	75.00%	45.00%	$3	$67
36	Shared Services	Management OH	$5	$18	35.00%	75.00%	26.25%	$1	$5
37		Benefits OH	$3	$0	35.00%	75.00%	26.25%	$1	$0
38		**Shared Services Total**	**$15**	**$166**			**42.27%**	**$5**	**$71**
39		**TOTAL**	**$617**	**$244**			**35.99%**	**$208**	**$102**
40	**PRE-EROSION NET BENEFIT**		**$208**	**$102**	**$310**				

Workpaper 3-14E
Pacific Gas and Electric Company
ERP and GIS Transformation
New Business Representative - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**New Business Representative**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
41	Pre-Erosion Net	$208	$102	$310
42	Erosion Factor	100.00%	100.00%	100.00%
43	Net Benefits	$208	$102	$310
44	**NET BENEFIT (POST-EROSION)**	**$310**		
45	**Capital**	**$208**		**67.16%**
46	**Expense incl. NEE**	**$102**		**32.84%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
47	Release 2	Mar 2029	Apr 2030	Mar 2032	$110	$82	$5
48	Release 3	May 2030	Jun 2031	May 2033	$200	$126	$1
49	**Total**				**$310**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Mar 2029, so 2030 earns nothing until April, then 1/24, 2/24 and so on up to 9/24 through December: (1+2+…+9) / 24 / 12 = 15.6%, and 15.6% × $109,955 = $17,180.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
50	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
51	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
52	Release 2	$0	$0	$17	$71	$109	$110	$110	$110	$110	$110	$110	$110
53	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
54	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
55	Release 3	$0	$0	$0	$19	$112	$193	$200	$200	$200	$200	$200	$200
56	**Annual Benefit**	**$0**	**$0**	**$17**	**$90**	**$221**	**$303**	**$310**	**$310**	**$310**	**$310**	**$310**	**$310**
57	**CUMULATIVE**	**$0**	**$0**	**$17**	**$108**	**$329**	**$631**	**$941**	**$1,251**	**$1,560**	**$1,870**	**$2,180**	**$2,489**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
58	Capital Benefit	$0	$0	$13	$65	$152	$204	$208	$208	$208	$208	$208	$208
59	Expense Benefit	$0	$0	$4	$22	$63	$93	$95	$95	$95	$95	$95	$95
60	Non-earnings Expense Benefit	$0	$0	$1	$3	$6	$7	$7	$7	$7	$7	$7	$7
61	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
62	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
63	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
64	**Escalated Annual Benefit**	**$0**	**$0**	**$20**	**$110**	**$278**	**$391**	**$410**	**$421**	**$432**	**$444**	**$456**	**$468**
65	**Escalated Cumulative**	**$0**	**$0**	**$20**	**$131**	**$409**	**$799**	**$1,210**	**$1,631**	**$2,063**	**$2,507**	**$2,962**	**$3,430**

66	Peak annual Benefit, as modeled	$310	The highest year on the Annual Benefit row above.
67	**Peak annual Benefit, escalated**	**$468**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
68	**Uplift on peak**	**51.09%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-14E
Pacific Gas and Electric Company
ERP and GIS Transformation
New Business Representative - Effective Project Management & Reconciliation Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Role	**New Business Representative**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14F
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Effective Project Management & Reconciliation External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Scope	**External Labor**

Contractor and supplier spend on the commodity codes these roles' work touches.

STEP 1 OF 4: ADDRESSABLE SPEND

General Ledger spend mapped to each role by commodity code, with material group spend allocated across the underlying commodity codes.

Line No.	Role	Addressable Spend
1	Project Manager	$19,577
2	**TOTAL ADDRESSABLE SPEND**	**$19,577**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Enterprise-wide benchmark rate set by role and applied consistently across all spend for that role.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Role	**Addressable Spend**	**Improvement Range %[1]**	**Gross Benefit**
3	Project Manager	$19,577	20.00%	$3,915
4	**TOTAL GROSS BENEFIT**	**$19,577**		**$3,915**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor applies to the whole pool. All external labor benefit traces to a contract or purchase order.

	HOW THE CONFIDENCE FACTOR IS BUILT	
5	Starting realization rate	25.00%
6	+ Maturity adjustment (percentage points)	10.00%
7	Realization Rate	35.00%
8	× Exclusivity %	75.00%
9	**CONFIDENCE FACTOR**	**26.25%**

	Formula Walkthrough	*A*	*B*	*C = A x B*
		Gross Benefit	**Confidence Factor**	**Net Benefit**
10	Traced to a commodity code (all rows)	$3,915	26.25%	$1,028
11	**PRE-EROSION NET BENEFIT**			**$1,028**

STEP 4 OF 4: EROSION & EXCEPTIONS

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*		
	Role	**Pre-Erosion Net**	**Erosion Applied**	**Post-Erosion Net**	**Capital**	**Expense Incl. NEE**
12	Project Manager	$1,028	100.00%	$1,028	$1,010	$18
13	**TOTAL**	**$1,028**	**100.00%**	**$1,028**	**$1,010**	**$18**

		Post Erosion Net	**% of Total**
14	**Capital**	**$1,010**	**98.29%**
15	**Expense incl. NEE**	**$18**	**1.71%**
16	**NET BENEFIT (POST-EROSION)**	**$1,028**	

	RELEASE SCHEDULE SHOWN FOR	**Project Manager**
17	**Post-Erosion Net, Selected Role**	**$1,028**

Workpaper 3-14F
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Effective Project Management & Reconciliation External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Scope	**External Labor**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

ANNUAL BENEFIT AT RUN RATE BY RELEASE, ALL ROLES

	Role	Release 2	Total	Release 2 Capital	Release 2 Non-earnings expense
18	Project Manager	$1,028	$1,028	$1,010	$0
19	**Total**	**$1,028**	**$1,028**	**$1,010**	**$0**

RELEASE SCHEDULE, SELECTED ROLE

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
20	Release 2	Mar 2029	Apr 2030	Mar 2032	$1,028
21	**Total**				**$1,028**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Mar 2029, so 2030 earns nothing until April, then 1/24, 2/24 and so on up to 9/24 through December: (1+2+…+9) / 24 / 12 = 15.6%.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
22	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
23	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
24	Release 2 Benefit	$0	$0	$161	$664	$1,017	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028
25	**Annual Benefit, Selected Role**	**$0**	**$0**	**$161**	**$664**	**$1,017**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**
26	**Cumulative, Selected Role**	**$0**	**$0**	**$161**	**$824**	**$1,841**	**$2,869**	**$3,897**	**$4,925**	**$5,953**	**$6,980**	**$8,008**	**$9,036**

ANNUAL BENEFIT, ALL ROLES — Each release's annual amount at run rate, multiplied by the Ramp % for that year.

	Role	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
27	Project Manager	$0	$0	$161	$664	$1,017	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028
28	**Total**	**$0**	**$0**	**$161**	**$664**	**$1,017**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**
29	**Cumulative, all roles**	**$0**	**$0**	**$161**	**$824**	**$1,841**	**$2,869**	**$3,897**	**$4,925**	**$5,953**	**$6,980**	**$8,008**	**$9,036**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
31	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
32	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
33	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
	CAPITAL BENEFIT BY ROLE												
34	Project Manager	$0	$0	$158	$652	$1,000	$1,010	$1,010	$1,010	$1,010	$1,010	$1,010	$1,010
35	**Total**	**$0**	**$0**	**$158**	**$652**	**$1,000**	**$1,010**	**$1,010**	**$1,010**	**$1,010**	**$1,010**	**$1,010**	**$1,010**
	EXPENSE BENEFIT BY ROLE												
36	Project Manager	$0	$0	$3	$11	$17	$17	$17	$17	$17	$17	$17	$17
37	**Total**	**$0**	**$0**	**$3**	**$11**	**$17**	**$17**	**$17**	**$17**	**$17**	**$17**	**$17**	**$17**
	NON-EARNINGS EXPENSE BENEFIT BY ROLE												
38	Project Manager	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	**Total**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
	ESCALATED ANNUAL BENEFIT BY ROLE												
40	Project Manager	$0	$0	$186	$785	$1,224	$1,261	$1,286	$1,312	$1,339	$1,366	$1,394	$1,422
41	**Total**	**$0**	**$0**	**$186**	**$785**	**$1,224**	**$1,261**	**$1,286**	**$1,312**	**$1,339**	**$1,366**	**$1,394**	**$1,422**
42	**Escalated cumulative, all roles**	**$0**	**$0**	**$186**	**$971**	**$2,195**	**$3,457**	**$4,743**	**$6,056**	**$7,394**	**$8,760**	**$10,154**	**$11,576**
43	**Escalated Annual Benefit, Selected Role**	**$0**	**$0**	**$186**	**$785**	**$1,224**	**$1,261**	**$1,286**	**$1,312**	**$1,339**	**$1,366**	**$1,394**	**$1,422**
44	**Escalated Cumulative, Selected Role**	**$0**	**$0**	**$186**	**$971**	**$2,195**	**$3,457**	**$4,743**	**$6,056**	**$7,394**	**$8,760**	**$10,154**	**$11,576**

45	Peak annual Benefit, all roles, as modeled	$1,028	The highest year on the Annual Benefit row above.
46	**Peak annual Benefit, all roles, escalated**	**$1,422**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
47	**Uplift on peak**	**38.34%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-14F
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Effective Project Management & Reconciliation External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Effective Project Management Reconciliation
Scope	**External Labor**

GLOSSARY

Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Three factors apply in Step 4: E1, E2, and E3, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the planned improvement. Set by role and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
Material or Services	Identifies whether the commodity code represents goods or services. External labor benefits apply to services.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.
Traceability	All external labor benefits trace to an identifiable commodity code and role. This describes how precisely the spend can be traced, not overhead loading; internal labor includes management overhead and benefits overhead in its spend base; external labor does not.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14G
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Effective Project Management & Reconciliation Internal Labor

A. CONFIDENCE RATES

Line No.		Direct Time	Management OH	Benefits OH	Notes
1	Starting Realization Rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization Rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	Confidence Factor (Realization × Exclusivity %)	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. EROSION FACTOR BY ROLE

	Role	Erosion Factor - Capital	Erosion Factor - Expense Incl. NEE	Combined Erosion Factor
6	Project Manager	100.00%	100.00%	100.00%
7	Performance Analyst	100.00%	100.00%	100.00%
8	Reporting Analyst	100.00%	100.00%	100.00%
9	New Business Representative	100.00%	100.00%	100.00%

Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It is set by operating area.

Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It is set by operating area.

C. IMPROVEMENT RANGE %[1] BY ROLE AND OPERATING AREA

	Role	Operating Area	Improvement Range %[1]
10	Project Manager	Electric Distribution	20.00%
11	Project Manager	Gas Distribution	20.00%
12	Project Manager	Electric General	20.00%
13	Project Manager	Substation	20.00%
14	Project Manager	Shared Services	20.00%
15	Project Manager	Gas Transmission	20.00%
16	Project Manager	Power Generation	20.00%
17	Project Manager	Electric Transmission	20.00%
18	Project Manager	Gas General	20.00%
19	Project Manager	Gas Facilities	20.00%
20	Performance Analyst	Electric General	25.77%
21	Performance Analyst	Shared Services	25.83%
22	Performance Analyst	Gas Transmission	35.00%
23	Performance Analyst	Electric Transmission	35.00%
24	Performance Analyst	Gas General	25.87%
25	Performance Analyst	Gas Facilities	35.00%
26	Reporting Analyst	Electric General	20.00%
27	Reporting Analyst	Gas Facilities	35.00%
28	New Business Representative	Electric Distribution	5.00%
29	New Business Representative	Gas Distribution	5.00%
30	New Business Representative	Electric General	5.00%
31	New Business Representative	Shared Services	5.00%

Note: Benchmark improvement rate applied to the underlying General Ledger spend. Where multiple rates apply to a role and operating area, they are averaged based on the share of addressable spend at each rate.

D. ADOPTION SCHEDULE

			Notes
32	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
33	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
34	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
35	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
36	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
37	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
38	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
39	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-14H
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Effective Project Management & Reconciliation External Labor

Assumptions & Reference Rates

External Labor Efficiencies - contractors performing work equivalent to an internal role benefit from the same standard processes, mobile tooling and work-model simplification.

Line No.			Notes
	A. CONFIDENCE RATES		
1	Starting realization rate	25.00%	External labor starts at 25% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION - GLOBAL		
6	E1 - Value Driver scope	Per role - see section C	Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It can be set by role and operating area.
7	E2 - Nuclear Generation	0.00%	No role-based benefits are applied to Nuclear Generation. Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
8	E3 - Mobile As-Builts	Per role - see section C	Takes out the share of the benefit that the Mobile As-Builts initiative already claims, so the same saving is not counted twice. The allocation reaches engineering roles only, so it is carried per role in section C rather than as a single global figure. A role showing 1.0000 carries no Mobile As-Builts adjustment.

C. ROLE RATES AND EROSION

	Role	Improvement Range %[1]	E1 - Value Driver scope	E3 - Mobile As-Builts	
9	Field Technician	27.62%	99.84%	100.00%	Improvement Range % is the role's "Shared Services" benchmark, the same benchmark the internal labor model uses for that role. Internal labor applies it org by org; here it is one blended figure across the role's whole spend, because contractor spend is not broken out by org the way payroll is.
10	Inspector	20.00%	99.84%	100.00%	
11	Designer	20.62%	69.50%	100.00%	
12	Engineer	20.00%	100.00%	82.00%	
13	GIS Tech	34.68%	100.00%	100.00%	
14	Project Manager	20.00%	100.00%	100.00%	

D. ADOPTION SCHEDULE

15	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
16	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
17	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
18	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
19	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
22	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Standardized Asset Management Process

WP#	Workpaper Name
	Summary WPs
3-15	Testimony Table
3-15A	Standardized Asset Management Process Summary
	Detail Role WPs
3-15B	GIS Tech - Standardized Asset Management Process Internal Labor Benefit Walkthrough
3-15C	Portfolio Program Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
3-15D	Asset Owner - Standardized Asset Management Process Internal Labor Benefit Walkthrough
3-15E	Asset Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
3-15F	External Labor - Standardized Asset Management Process Internal Labor Benefit Walkthrough
	Assumptions & Reference Rates WPs
3-15G	Assumptions & Reference Rates - Standardized Asset Management Process Internal Labor
3-15H	Assumptions & Reference Rates - Standardized Asset Management Process External Labor

Workpaper 3-15
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-37
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$6,434.7**

Workpaper 3-15A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Asset Management Process
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Calculation Method	Role-based

DEFINITION

Internal and external efficiencies applied to specific roles involved in managing asset data, condition monitoring, and investment planning. A single-source asset model with standardized master data governance and automated system synchronization reduces time spent reconciling between disconnected asset systems, enabling faster access to asset condition, risk, and performance data for maintenance and investment decisions.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	GIS Tech	$2,852	$2,223	$5,075	$4,430	$3,453	$7,883
2	Portfolio Program Manager	$1,026	$1,073	$2,099	$1,623	$1,697	$3,320
3	Asset Owner	$95	$277	$371	$158	$463	$621
4	Asset Manager	$0	$41	$41	$0	$73	$73
5	**Subtotal: Internal Labor**	**$3,972**	**$3,614**	**$7,586**	**$6,211**	**$5,687**	**$11,898**
6	**External Labor**	**$3,833**	**$1,005**	**$4,838**	**$5,310**	**$1,393**	**$6,703**
7	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
8	**TOTAL VALUE DRIVER BENEFIT**	**$7,805**	**$4,619**	**$12,424**	**$11,521**	**$7,079**	**$18,601**
9	**Peak Annual Benefit, Un-escalated**	**$12,424**					
10	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
11	Internal labor - GIS Tech	$0	$0	$353	$1,731	$3,818	$4,977	$5,075	$5,075	$5,075	$5,075	$5,075	$5,075	$41,327
12	Internal labor - Portfolio Program Manager	$19	$171	$331	$526	$1,337	$2,038	$2,099	$2,099	$2,099	$2,099	$2,099	$2,099	$17,012
13	Internal labor - Asset Owner	$0	$0	$0	$36	$209	$359	$371	$371	$371	$371	$371	$371	$2,833
14	Internal labor - Asset Manager	$0	$0	$0	$4	$23	$40	$41	$41	$41	$41	$41	$41	$315
15	**Subtotal: Internal Labor**	**$19**	**$171**	**$683**	**$2,298**	**$5,387**	**$7,413**	**$7,586**	**$7,586**	**$7,586**	**$7,586**	**$7,586**	**$7,586**	**$61,486**
16	External labor	$1	$5	$764	$3,128	$4,788	$4,838	$4,838	$4,838	$4,838	$4,838	$4,838	$4,838	$42,551
17	**TOTAL: ALL COMPONENTS**	**$19**	**$176**	**$1,448**	**$5,426**	**$10,175**	**$12,251**	**$12,424**	**$12,424**	**$12,424**	**$12,424**	**$12,424**	**$12,424**	**$104,038**
18	Capital	$2	$15	$852	$3,674	$6,651	$7,718	$7,805	$7,805	$7,805	$7,805	$7,805	$7,805	$65,740
19	Expense incl. NEE	$18	$161	$596	$1,752	$3,523	$4,534	$4,619	$4,619	$4,619	$4,619	$4,619	$4,619	$38,297
20	**CUMULATIVE**	**$19**	**$195**	**$1,643**	**$7,069**	**$17,244**	**$29,495**	**$41,919**	**$54,343**	**$66,766**	**$79,190**	**$91,614**	**$104,038**	
21	**CUMULATIVE BENEFITS**	**$104,038**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
22	Internal labor - GIS Tech	$0	$0	$424	$2,138	$4,862	$6,528	$6,846	$7,041	$7,242	$7,449	$7,663	$7,883	$58,076
23	Internal labor - Portfolio Program Manager	$22	$209	$418	$678	$1,733	$2,704	$2,865	$2,950	$3,038	$3,129	$3,223	$3,320	$24,290
24	Internal labor - Asset Owner	$0	$0	$0	$46	$277	$492	$527	$544	$563	$582	$601	$621	$4,253
25	Internal labor - Asset Manager	$0	$0	$0	$5	$32	$57	$61	$63	$66	$68	$71	$73	$495
26	External labor	$1	$6	$885	$3,691	$5,757	$5,933	$6,055	$6,179	$6,306	$6,436	$6,568	$6,703	$54,521
27	**TOTAL, ALL COMPONENTS, ESCALATED**	**$23**	**$215**	**$1,727**	**$6,559**	**$12,662**	**$15,714**	**$16,354**	**$16,778**	**$17,214**	**$17,664**	**$18,126**	**$18,601**	**$141,636**
28	Capital	$2	$17	$989	$4,344	$8,008	$9,471	$9,769	$9,965	$10,167	$10,372	$10,582	$10,795	$84,481
29	Expense incl. NEE	$21	$197	$738	$2,215	$4,653	$6,243	$6,585	$6,812	$7,048	$7,292	$7,544	$7,806	$57,154
30	**CUMULATIVE, ESCALATED**	**$23**	**$237**	**$1,965**	**$8,523**	**$21,185**	**$36,899**	**$53,253**	**$70,031**	**$87,245**	**$104,909**	**$123,035**	**$141,636**	

Workpaper 3-15B
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS Tech - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**GIS Tech**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Distribution	$4,782	$3,911	$5,190	$2,213	$2,258	$0	$12,229	$6,124
2	Electric General	$3,410	$4,540	$3,228	$2,266	$1,683	$0	$8,321	$6,807
3	Shared Services	$431	$762	$204	$217	$229	$0	$865	$979
4	Gas Transmission	$1,058	$1,495	$1,127	$813	$530	$0	$2,716	$2,308
5	Gas General	$0	$143	$0	$79	$0	$0	$0	$222
6	**TOTAL**	**$9,681**	**$10,851**	**$9,750**	**$5,588**	**$4,699**	**$1**	**$24,130**	**$16,439**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
7		Direct Time	$4,782	$3,911	35.00%	$1,674	$1,369
8	Gas Distribution	Management OH	$5,190	$2,213	35.00%	$1,816	$775
9		Benefits OH	$2,258	$0	35.00%	$790	$0
10		**Gas Distribution Total**	**$12,229**	**$6,124**	**35.00%**	**$4,280**	**$2,143**
11		Direct Time	$3,410	$4,540	35.00%	$1,193	$1,589
12	Electric General	Management OH	$3,228	$2,266	35.00%	$1,130	$796
13		Benefits OH	$1,683	$0	35.00%	$589	$0
14		**Electric General Total**	**$8,321**	**$6,807**	**35.02%**	**$2,912**	**$2,385**
15		Direct Time	$431	$762	34.83%	$150	$265
16	Shared Services	Management OH	$204	$217	34.83%	$71	$77
17		Benefits OH	$229	$0	34.83%	$80	$0
18		**Shared Services Total**	**$865**	**$979**	**34.89%**	**$301**	**$342**
19		Direct Time	$1,058	$1,495	35.00%	$370	$523
20	Gas Transmission	Management OH	$1,127	$813	35.00%	$395	$284
21		Benefits OH	$530	$0	35.00%	$185	$0
22		**Gas Transmission Total**	**$2,716**	**$2,308**	**35.00%**	**$950**	**$808**
23		Direct Time	$0	$143	35.00%	$0	$50
24	Gas General	Management OH	$0	$79	35.00%	$0	$28
25		Benefits OH	$0	$0	35.00%	$0	$0
26		**Gas General Total**	**$0**	**$222**	**35.00%**	**$0**	**$78**
27		**TOTAL**	**$24,130**	**$16,439**	**35.00%**	**$8,444**	**$5,756**

Workpaper 3-15B
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS Tech - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**GIS Tech**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**onfidence Fact**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
28		Direct Time	$1,674	$1,369	60.00%	75.00%	45.00%	$753	$616
29	Gas Distribution	Management OH	$1,816	$775	35.00%	75.00%	26.25%	$477	$203
30		Benefits OH	$790	$0	35.00%	75.00%	26.25%	$207	$0
31		**Gas Distribution Total**	**$4,280**	**$2,143**			**35.13%**	**$1,437**	**$819**
32		Direct Time	$1,193	$1,589	60.00%	75.00%	45.00%	$537	$715
33	Electric General	Management OH	$1,130	$796	35.00%	75.00%	26.25%	$297	$209
34		Benefits OH	$589	$0	35.00%	75.00%	26.25%	$155	$0
35		**Electric General Total**	**$2,912**	**$2,385**			**36.10%**	**$988**	**$924**
36		Direct Time	$150	$265	60.00%	75.00%	45.00%	$68	$119
37	Shared Services	Management OH	$71	$77	35.00%	75.00%	26.25%	$19	$20
38		Benefits OH	$80	$0	35.00%	75.00%	26.25%	$21	$0
39		**Shared Services Total**	**$301**	**$342**			**38.37%**	**$107**	**$140**
40		Direct Time	$370	$523	60.00%	75.00%	45.00%	$167	$235
41	Gas Transmission	Management OH	$395	$284	35.00%	75.00%	26.25%	$104	$75
42		Benefits OH	$185	$0	35.00%	75.00%	26.25%	$49	$0
43		**Gas Transmission Total**	**$950**	**$808**			**35.78%**	**$319**	**$310**
44		Direct Time	$0	$50	60.00%	75.00%	45.00%	$0	$23
45	Gas General	Management OH	$0	$28	35.00%	75.00%	26.25%	$0	$7
46		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
47		**Gas General Total**	**$0**	**$78**			**38.36%**	**$0**	**$30**
48		**TOTAL**	**$8,444**	**$5,756**			**35.74%**	**$2,852**	**$2,223**
49	**PRE-EROSION NET BENEFIT**		**$2,852**	**$2,223**	**$5,075**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
50	Pre-Erosion Net	$2,852	$2,223	$5,075
51	Erosion Factor	100.00%	100.00%	100.00%
52	Net Benefits	$2,852	$2,223	$5,075
53	**NET BENEFIT (POST-EROSION)**	**$5,075**		
54	**Capital**	**$2,852**		**56.20%**
55	**Expense incl. NEE**	**$2,223**		**43.80%**

Workpaper 3-15B
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS Tech - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**GIS Tech**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
56	Release 2	Mar 2029	Apr 2030	Mar 2032	$2,257	$1,437	$9
57	Release 3	May 2030	Jun 2031	May 2033	$2,818	$1,414	$316
58	**Total**				**$5,075**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Mar 2029, so 2030 earns nothing until April, then 1/24, 2/24 and so on up to 9/24 through December: (1+2+…+9) / 24 / 12 = 15.6%, and 15.6% × $2,256,649 = $352,601.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
59	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
60	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
61	Release 2	$0	$0	$353	$1,457	$2,233	$2,257	$2,257	$2,257	$2,257	$2,257	$2,257	$2,257
62	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
63	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
64	Release 3	$0	$0	$0	$274	$1,585	$2,720	$2,818	$2,818	$2,818	$2,818	$2,818	$2,818
65	**Annual Benefit**	**$0**	**$0**	**$353**	**$1,731**	**$3,818**	**$4,977**	**$5,075**	**$5,075**	**$5,075**	**$5,075**	**$5,075**	**$5,075**
66	**CUMULATIVE**	**$0**	**$0**	**$353**	**$2,084**	**$5,902**	**$10,879**	**$15,954**	**$21,028**	**$26,103**	**$31,177**	**$36,252**	**$41,327**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
67	Capital Benefit	$0	$0	$225	$1,066	$2,218	$2,803	$2,852	$2,852	$2,852	$2,852	$2,852	$2,852
68	Expense Benefit	$0	$0	$127	$629	$1,413	$1,860	$1,898	$1,898	$1,898	$1,898	$1,898	$1,898
69	Non-earnings Expense Benefit	$0	$0	$1	$37	$187	$314	$325	$325	$325	$325	$325	$325
70	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
71	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
72	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
73	**Escalated Annual Benefit**	**$0**	**$0**	**$424**	**$2,138**	**$4,862**	**$6,528**	**$6,846**	**$7,041**	**$7,242**	**$7,449**	**$7,663**	**$7,883**
74	**Escalated Cumulative**	**$0**	**$0**	**$424**	**$2,562**	**$7,424**	**$13,952**	**$20,798**	**$27,839**	**$35,081**	**$42,530**	**$50,193**	**$58,076**

75	Peak annual Benefit, as modeled	$5,075	The highest year on the Annual Benefit row above.
76	**Peak annual Benefit, escalated**	**$7,883**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
77	**Uplift on peak**	**55.35%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-15B
Pacific Gas and Electric Company
ERP and GIS Transformation
GIS Tech - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**GIS Tech**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15C
Pacific Gas and Electric Company
ERP and GIS Transformation
Portfolio Program Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Portfolio Program Manager**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric General	$3,279	$1,725	$2,211	$823	$1,392	$0	$6,882	$2,548
2	Substation	$9	$22	$8	$11	$5	$0	$22	$33
3	Shared Services	$125	$822	$93	$266	$58	$0	$276	$1,087
4	Gas Transmission	$0	$138	$0	$76	$0	$0	$0	$214
5	Power Generation	$104	$1,305	$29	$1,379	$49	$0	$183	$2,684
6	Electric Transmission	$145	$26	$135	$12	$79	$0	$359	$38
7	Gas General	$208	$617	$163	$346	$101	$0	$472	$963
8	Gas Facilities	$58	$285	$54	$130	$34	$0	$147	$415
9	**TOTAL**	**$3,929**	**$4,940**	**$2,693**	**$3,042**	**$1,719**	**$0**	**$8,341**	**$7,982**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

Formula Walkthrough			*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
10		Direct Time	$3,279	$1,725	35.00%	$1,148	$604
11	Electric General	Management OH	$2,211	$823	35.00%	$778	$310
12		Benefits OH	$1,392	$0	35.00%	$487	$0
13		**Electric General Total**	**$6,882**	**$2,548**	**35.28%**	**$2,413**	**$914**
14		Direct Time	$9	$22	35.00%	$3	$8
15	Substation	Management OH	$8	$11	35.00%	$3	$4
16		Benefits OH	$5	$0	35.00%	$2	$0
17		**Substation Total**	**$22**	**$33**	**35.00%**	**$8**	**$11**
18		Direct Time	$125	$822	35.00%	$44	$288
19	Shared Services	Management OH	$93	$266	35.00%	$33	$126
20		Benefits OH	$58	$0	35.00%	$20	$0
21		**Shared Services Total**	**$276**	**$1,087**	**37.49%**	**$98**	**$413**
22		Direct Time	$0	$138	35.00%	$0	$48
23	Gas Transmission	Management OH	$0	$76	35.00%	$0	$27
24		Benefits OH	$0	$0	35.00%	$0	$0
25		**Gas Transmission Total**	**$0**	**$214**	**35.00%**	**$0**	**$75**
26		Direct Time	$104	$1,305	35.00%	$37	$457
27	Power Generation	Management OH	$29	$1,379	35.00%	$10	$486
28		Benefits OH	$49	$0	35.00%	$17	$0
29		**Power Generation Total**	**$183**	**$2,684**	**35.12%**	**$64**	**$943**
30		Direct Time	$145	$26	35.00%	$51	$9
31	Electric Transmission	Management OH	$135	$12	35.00%	$47	$4
32		Benefits OH	$79	$0	35.00%	$28	$0
33		**Electric Transmission Total**	**$359**	**$38**	**35.00%**	**$126**	**$13**
34		Direct Time	$208	$617	35.00%	$73	$216
35	Gas General	Management OH	$163	$346	35.00%	$57	$121
36		Benefits OH	$101	$0	35.00%	$35	$0
37		**Gas General Total**	**$472**	**$963**	**35.01%**	**$165**	**$337**
38		Direct Time	$58	$285	35.00%	$20	$100
39	Gas Facilities	Management OH	$54	$130	35.00%	$19	$45
40		Benefits OH	$34	$0	35.00%	$12	$0
41		**Gas Facilities Total**	**$147**	**$415**	**35.00%**	**$51**	**$145**
42		**TOTAL**	**$8,341**	**$7,982**	**35.39%**	**$2,925**	**$2,852**

Workpaper 3-15C
Pacific Gas and Electric Company
ERP and GIS Transformation
Portfolio Program Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Portfolio Program Manager**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
43		Direct Time	$1,148	$604	60.00%	75.00%	45.00%	$517	$272
44	Electric General	Management OH	$778	$310	35.00%	75.00%	26.25%	$204	$81
45		Benefits OH	$487	$0	35.00%	75.00%	26.25%	$128	$0
46		**Electric General Total**	**$2,413**	**$914**			**36.12%**	**$849**	**$353**
47		Direct Time	$3	$8	60.00%	75.00%	45.00%	$1	$3
48	Substation	Management OH	$3	$4	35.00%	75.00%	26.25%	$1	$1
49		Benefits OH	$2	$0	35.00%	75.00%	26.25%	$0	$0
50		**Substation Total**	**$8**	**$11**			**36.91%**	**$3**	**$4**
51		Direct Time	$44	$288	60.00%	75.00%	45.00%	$20	$129
52	Shared Services	Management OH	$33	$126	35.00%	75.00%	26.25%	$9	$33
53		Benefits OH	$20	$0	35.00%	75.00%	26.25%	$5	$0
54		**Shared Services Total**	**$98**	**$413**			**38.40%**	**$34**	**$162**
55		Direct Time	$0	$48	60.00%	75.00%	45.00%	$0	$22
56	Gas Transmission	Management OH	$0	$27	35.00%	75.00%	26.25%	$0	$7
57		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
58		**Gas Transmission Total**	**$0**	**$75**			**38.36%**	**$0**	**$29**
59		Direct Time	$37	$457	60.00%	75.00%	45.00%	$16	$206
60	Power Generation	Management OH	$10	$486	35.00%	75.00%	26.25%	$3	$128
61		Benefits OH	$17	$0	35.00%	75.00%	26.25%	$5	$0
62		**Power Generation Total**	**$64**	**$943**			**35.44%**	**$24**	**$333**
63		Direct Time	$51	$9	60.00%	75.00%	45.00%	$23	$4
64	Electric Transmission	Management OH	$47	$4	35.00%	75.00%	26.25%	$12	$1
65		Benefits OH	$28	$0	35.00%	75.00%	26.25%	$7	$0
66		**Electric Transmission Total**	**$126**	**$13**			**34.32%**	**$42**	**$5**
67		Direct Time	$73	$216	60.00%	75.00%	45.00%	$33	$97
68	Gas General	Management OH	$57	$121	35.00%	75.00%	26.25%	$15	$32
69		Benefits OH	$35	$0	35.00%	75.00%	26.25%	$9	$0
70		**Gas General Total**	**$165**	**$337**			**37.02%**	**$57**	**$129**
71		Direct Time	$20	$100	60.00%	75.00%	45.00%	$9	$45
72	Gas Facilities	Management OH	$19	$45	35.00%	75.00%	26.25%	$5	$12
73		Benefits OH	$12	$0	35.00%	75.00%	26.25%	$3	$0
74		**Gas Facilities Total**	**$51**	**$145**			**37.71%**	**$17**	**$57**
75		**TOTAL**	**$2,925**	**$2,852**			**36.32%**	**$1,026**	**$1,073**
76	**PRE-EROSION NET BENEFIT**		**$1,026**	**$1,073**	**$2,099**				

Workpaper 3-15C
Pacific Gas and Electric Company
ERP and GIS Transformation
Portfolio Program Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Portfolio Program Manager**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
77	Pre-Erosion Net	$1,026	$1,073	$2,099
78	Erosion Factor	100.00%	100.00%	100.00%
79	Net Benefits	$1,026	$1,073	$2,099
80	**NET BENEFIT (POST-EROSION)**	**$2,099**		
81	**Capital**	**$1,026**		**48.88%**
82	**Expense incl. NEE**	**$1,073**		**51.12%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
83	Release 1	Jul 2027	Aug 2028	Jul 2030	$357	$24	$18
84	Release 2	Mar 2029	Apr 2030	Mar 2032	$0	$0	$0
85	Release 3	May 2030	Jun 2031	May 2033	$1,742	$1,002	$520
86	**Total**				**$2,099**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $356,784 = $18,583.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
87	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
88	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
89	Release 1	$19	$171	$331	$357	$357	$357	$357	$357	$357	$357	$357	$357
90	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
91	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
92	Release 2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
93	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
94	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
95	Release 3	$0	$0	$0	$169	$980	$1,681	$1,742	$1,742	$1,742	$1,742	$1,742	$1,742
96	**Annual Benefit**	**$19**	**$171**	**$331**	**$526**	**$1,337**	**$2,038**	**$2,099**	**$2,099**	**$2,099**	**$2,099**	**$2,099**	**$2,099**
97	**CUMULATIVE**	**$19**	**$190**	**$520**	**$1,046**	**$2,383**	**$4,421**	**$6,520**	**$8,618**	**$10,717**	**$12,815**	**$14,914**	**$17,012**

Workpaper 3-15C
Pacific Gas and Electric Company
ERP and GIS Transformation
Portfolio Program Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Portfolio Program Manager**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
98	Capital Benefit	$1	$11	$22	$121	$587	$991	$1,026	$1,026	$1,026	$1,026	$1,026	$1,026
99	Expense Benefit	$16	$151	$292	$336	$439	$527	$535	$535	$535	$535	$535	$535
100	Non-earnings Expense Benefit	$1	$9	$17	$69	$311	$520	$538	$538	$538	$538	$538	$538
101	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
102	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
103	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
104	**Escalated Annual Benefit**	**$22**	**$209**	**$418**	**$678**	**$1,733**	**$2,704**	**$2,865**	**$2,950**	**$3,038**	**$3,129**	**$3,223**	**$3,320**
105	**Escalated Cumulative**	**$22**	**$231**	**$649**	**$1,327**	**$3,060**	**$5,764**	**$8,629**	**$11,579**	**$14,618**	**$17,747**	**$20,970**	**$24,290**

106	Peak annual Benefit, as modeled	$2,099	The highest year on the Annual Benefit row above.
107	**Peak annual Benefit, escalated**	**$3,320**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
108	**Uplift on peak**	**58.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15D
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Owner - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Asset Owner**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric General	$0	$30	$0	$5	$0	$0	$0	$35
2	Gas Transmission	$0	$6	$0	$3	$0	$0	$0	$9
3	Gas Facilities	$311	$1,284	$341	$745	$156	$0	$808	$2,029
4	**TOTAL**	**$311**	**$1,319**	**$341**	**$752**	**$156**	**$0**	**$808**	**$2,072**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
5		Direct Time	$0	$30	35.00%	$0	$10
6	Electric General	Management OH	$0	$5	35.00%	$0	$2
7		Benefits OH	$0	$0	35.00%	$0	$0
8		**Electric General Total**	**$0**	**$35**	**35.00%**	**$0**	**$12**
9		Direct Time	$0	$6	35.00%	$0	$2
10	Gas Transmission	Management OH	$0	$3	35.00%	$0	$1
11		Benefits OH	$0	$0	35.00%	$0	$0
12		**Gas Transmission Total**	**$0**	**$9**	**34.99%**	**$0**	**$3**
13		Direct Time	$311	$1,284	35.00%	$109	$449
14	Gas Facilities	Management OH	$341	$745	35.00%	$119	$261
15		Benefits OH	$156	$0	35.00%	$54	$0
16		**Gas Facilities Total**	**$808**	**$2,029**	**35.00%**	**$283**	**$710**
17		**TOTAL**	**$808**	**$2,072**	**35.00%**	**$283**	**$725**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Facto**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
18		Direct Time	$0	$10	60.00%	75.00%	45.00%	$0	$5
19	Electric General	Management OH	$0	$2	35.00%	75.00%	26.25%	$0	$0
20		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
21		**Electric General Total**	**$0**	**$12**			**42.45%**	**$0**	**$5**
22		Direct Time	$0	$2	60.00%	75.00%	45.00%	$0	$1
23	Gas Transmission	Management OH	$0	$1	35.00%	75.00%	26.25%	$0	$0
24		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
25		**Gas Transmission Total**	**$0**	**$3**			**38.36%**	**$0**	**$1**
26		Direct Time	$109	$449	60.00%	75.00%	45.00%	$49	$202
27	Gas Facilities	Management OH	$119	$261	35.00%	75.00%	26.25%	$31	$68
28		Benefits OH	$54	$0	35.00%	75.00%	26.25%	$14	$0
29		**Gas Facilities Total**	**$283**	**$710**			**36.79%**	**$95**	**$271**
30		**TOTAL**	**$283**	**$725**			**36.86%**	**$95**	**$277**
31	**PRE-EROSION NET BENEFIT**		**$95**	**$277**	**$371**				

Workpaper 3-15D
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Owner - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Asset Owner**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	Capital	Expense incl. NEE	Total
32	Pre-Erosion Net	$95	$277	$371
33	Erosion Factor	100.00%	100.00%	100.00%
34	Net Benefits	$95	$277	$371
35	**NET BENEFIT (POST-EROSION)**	**$371**		
36	**Capital**	**$95**		**25.46%**
37	**Expense incl. NEE**	**$277**		**74.54%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
38	Release 3	May 2030	Jun 2031	May 2033	$371	$95	$16
39	**Total**				**$371**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $371,484 = $36,116.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
40	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
41	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
42	Release 3	$0	$0	$0	$36	$209	$359	$371	$371	$371	$371	$371	$371
43	**Annual Benefit**	**$0**	**$0**	**$0**	**$36**	**$209**	**$359**	**$371**	**$371**	**$371**	**$371**	**$371**	**$371**
44	**CUMULATIVE**	**$0**	**$0**	**$0**	**$36**	**$245**	**$604**	**$975**	**$1,347**	**$1,718**	**$2,090**	**$2,461**	**$2,833**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
45	Capital Benefit	$0	$0	$0	$9	$53	$91	$95	$95	$95	$95	$95	$95
46	Expense Benefit	$0	$0	$0	$25	$147	$252	$261	$261	$261	$261	$261	$261
47	Non-earnings Expense Benefit	$0	$0	$0	$2	$9	$15	$16	$16	$16	$16	$16	$16
48	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
49	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
50	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
51	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$46**	**$277**	**$492**	**$527**	**$544**	**$563**	**$582**	**$601**	**$621**
52	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$46**	**$324**	**$816**	**$1,342**	**$1,886**	**$2,449**	**$3,030**	**$3,632**	**$4,253**

53	Peak annual Benefit, as modeled	$371	The highest year on the Annual Benefit row above.
54	**Peak annual Benefit, escalated**	**$621**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
55	**Uplift on peak**	**67.30%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-15D
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Owner - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Asset Owner**

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15E
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Asset Manager**

STEP 1 OF 4: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management OH**		**Benefits OH**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission	$0	$76	$0	$15	$0	$0	$0	$92
2	Gas Facilities	$0	$133	$0	$76	$0	$0	$0	$209
3	**TOTAL**	**$0**	**$209**	**$0**	**$92**	**$0**	**$0**	**$0**	**$300**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.

	Formula Walkthrough		*A*	*B*	*C*	*D = A x C*	*E = B x C*
			Spend		**Benefit**	**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**Capital**	**Expense**
4		Direct Time	$0	$76	35.00%	$0	$27
5	Electric Transmission	Management OH	$0	$15	35.00%	$0	$5
6		Benefits OH	$0	$0	35.00%	$0	$0
7		**Electric Transmission Total**	**$0**	**$92**	**35.00%**	**$0**	**$32**
8		Direct Time	$0	$133	35.00%	$0	$46
9	Gas Facilities	Management OH	$0	$76	35.00%	$0	$27
10		Benefits OH	$0	$0	35.00%	$0	$0
11		**Gas Facilities Total**	**$0**	**$209**	**35.00%**	**$0**	**$73**
12		**TOTAL**	**$0**	**$300**	**35.00%**	**$0**	**$105**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper. Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*
			Total		**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Adjusted Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**%**	**%**	**%**	**Capital**	**Expense**
13		Direct Time	$0	$27	60.00%	75.00%	45.00%	$0	$12
14	Electric Transmission	Management OH	$0	$5	35.00%	75.00%	26.25%	$0	$1
15		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
16		**Electric Transmission Total**	**$0**	**$32**			**41.86%**	**$0**	**$13**
17		Direct Time	$0	$46	60.00%	75.00%	45.00%	$0	$21
18	Gas Facilities	Management OH	$0	$27	35.00%	75.00%	26.25%	$0	$7
19		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
20		**Gas Facilities Total**	**$0**	**$73**			**38.15%**	**$0**	**$28**
21		**TOTAL**	**$0**	**$105**			**39.28%**	**$0**	**$41**
22	**PRE-EROSION NET BENEFIT**		**$0**	**$41**	**$41**				

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.
Note: The erosion factor is sourced from the Assumptions workpaper.

	Metric	**Capital**	**Expense incl. NEE**	**Total**
23	Pre-Erosion Net	$0	$41	$41
24	Erosion Factor	100.00%	100.00%	100.00%
25	Net Benefits	$0	$41	$41
26	**NET BENEFIT (POST-EROSION)**	**$41**		
27	**Capital**	**$0**		**0.00%**
28	**Expense incl. NEE**	**$41**		**100.00%**

Workpaper 3-15E
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Manager - Standardized Asset Management Process Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Role	**Asset Manager**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Start	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
29	Release 3	May 2030	Jun 2031	May 2033	$41	$0	$13
30	**Total**				**$41**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $41,303 = $4,016.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
31	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
32	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
33	Release 3	$0	$0	$0	$4	$23	$40	$41	$41	$41	$41	$41	$41
34	**Annual Benefit**	**$0**	**$0**	**$0**	**$4**	**$23**	**$40**	**$41**	**$41**	**$41**	**$41**	**$41**	**$41**
35	**CUMULATIVE**	**$0**	**$0**	**$0**	**$4**	**$27**	**$67**	**$108**	**$150**	**$191**	**$232**	**$274**	**$315**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
36	Expense Benefit	$0	$0	$0	$3	$16	$27	$28	$28	$28	$28	$28	$28
37	Non-earnings Expense Benefit	$0	$0	$0	$1	$8	$13	$13	$13	$13	$13	$13	$13
38	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
39	Non-earnings expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
40	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$5**	**$32**	**$57**	**$61**	**$63**	**$66**	**$68**	**$71**	**$73**
41	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$5**	**$37**	**$94**	**$155**	**$218**	**$283**	**$351**	**$422**	**$495**

42	Peak annual Benefit, as modeled	$41	The highest year on the Annual Benefit row above.
43	**Peak annual Benefit, escalated**	**$73**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
44	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Cost Type	Identifies the spend layer represented by the row: Direct time, Management OH or Benefits OH.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15F
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Asset Management Process External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Scope	**External Labor**

Contractor and supplier spend on the commodity codes these roles' work touches.

STEP 1 OF 4: ADDRESSABLE SPEND

General Ledger spend mapped to each role by commodity code, with material group spend allocated across the underlying commodity codes.

Line No.	Role	Addressable Spend
1	GIS Tech	$53,145
2	**TOTAL ADDRESSABLE SPEND**	**$53,145**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Enterprise-wide benchmark rate set by role and applied consistently across all spend for that role.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Role	**Addressable Spend**	**Improvement Range %[1]**	**Gross Benefit**
3	GIS Tech	$53,145	34.68%	$18,430
4	**TOTAL GROSS BENEFIT**	**$53,145**		**$18,430**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor applies to the whole pool. All external labor benefit traces to a contract or purchase order.

	HOW THE CONFIDENCE FACTOR IS BUILT	
5	Starting realization rate	25.00%
6	+ Maturity adjustment (percentage points)	10.00%
7	Realization Rate	35.00%
8	× Exclusivity %	75.00%
9	**CONFIDENCE FACTOR**	**26.25%**

	Formula Walkthrough	*A*	*B*	*C = A x B*
		Gross Benefit	**Confidence Factor**	**Net Benefit**
10	Traced to a commodity code (all rows)	$18,430	26.25%	$4,838
11	**PRE-EROSION NET BENEFIT**			**$4,838**

STEP 4 OF 4: EROSION & EXCEPTIONS

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*		
	Role	**Pre-Erosion Net**	**Erosion Applied**	**Post-Erosion Net**	**Capital**	**Expense Incl. NEE**
12	GIS Tech	$4,838	100.00%	$4,838	$3,833	$1,005
13	**TOTAL**	**$4,838**	**100.00%**	**$4,838**	**$3,833**	**$1,005**

		Post Erosion Net	**% of Total**
14	**Capital**	**$3,833**	**79.22%**
15	**Expense incl. NEE**	**$1,005**	**20.78%**
16	**NET BENEFIT (POST-EROSION)**	**$4,838**	

	RELEASE SCHEDULE SHOWN FOR	**GIS Tech**
17	**Post-Erosion Net, Selected Role**	**$4,838**

Workpaper 3-15F
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Asset Management Process External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Scope	**External Labor**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

ANNUAL BENEFIT AT RUN RATE BY RELEASE, ALL ROLES

	Role	Release 1	Release 2	Total	Release 1 Capital	Release 1 Non-earnings expense	Release 2 Capital	Release 2 Non-earnings expense
18	GIS Tech	$11	$4,827	$4,838	$8	$0	$3,825	$416
19	**Total**	**$11**	**$4,827**	**$4,838**	**$8**	**$0**	**$3,825**	**$416**

RELEASE SCHEDULE, SELECTED ROLE

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
20	Release 1	Jul 2027	Aug 2028	Jul 2030	$11
21	Release 2	Mar 2029	Apr 2030	Mar 2032	$4,827
22	**Total**				**$4,838**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
23	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
24	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
25	Release 1 Benefit	$1	$5	$10	$11	$11	$11	$11	$11	$11	$11	$11	$11
26	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
27	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	12.00	12.00	12.00	12.00	12.00
28	Release 2 Benefit	$0	$0	$754	$3,117	$4,776	$4,827	$4,827	$4,827	$4,827	$4,827	$4,827	$4,827
29	**Annual Benefit, Selected Role**	**$1**	**$5**	**$764**	**$3,128**	**$4,788**	**$4,838**	**$4,838**	**$4,838**	**$4,838**	**$4,838**	**$4,838**	**$4,838**
30	**Cumulative, Selected Role**	**$1**	**$6**	**$770**	**$3,899**	**$8,686**	**$13,524**	**$18,362**	**$23,200**	**$28,038**	**$32,876**	**$37,714**	**$42,551**

ANNUAL BENEFIT, ALL ROLES Each release's annual amount at run rate, multiplied by the Ramp % for that year.

	Role	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
31	GIS Tech	$1	$5	$764	$3,128	$4,788	$4,838	$4,838	$4,838	$4,838	$4,838	$4,838	$4,838
32	**Total**	**$1**	**$5**	**$764**	**$3,128**	**$4,788**	**$4,838**	**$4,838**	**$4,838**	**$4,838**	**$4,838**	**$4,838**	**$4,838**
33	**Cumulative, all roles**	**$1**	**$6**	**$770**	**$3,899**	**$8,686**	**$13,524**	**$18,362**	**$23,200**	**$28,038**	**$32,876**	**$37,714**	**$42,551**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
34	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
35	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
36	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

CAPITAL BENEFIT BY ROLE

37	GIS Tech	$0	$4	$605	$2,478	$3,793	$3,833	$3,833	$3,833	$3,833	$3,833	$3,833	$3,833
38	**Total**	**$0**	**$4**	**$605**	**$2,478**	**$3,793**	**$3,833**	**$3,833**	**$3,833**	**$3,833**	**$3,833**	**$3,833**	**$3,833**

EXPENSE BENEFIT BY ROLE

39	GIS Tech	$0	$1	$94	$381	$583	$589	$589	$589	$589	$589	$589	$589
40	**Total**	**$0**	**$1**	**$94**	**$381**	**$583**	**$589**	**$589**	**$589**	**$589**	**$589**	**$589**	**$589**

NON-EARNINGS EXPENSE BENEFIT BY ROLE

41	GIS Tech	$0	$0	$65	$269	$412	$416	$416	$416	$416	$416	$416	$416
42	**Total**	**$0**	**$0**	**$65**	**$269**	**$412**	**$416**	**$416**	**$416**	**$416**	**$416**	**$416**	**$416**

ESCALATED ANNUAL BENEFIT BY ROLE

43	GIS Tech	$1	$6	$885	$3,691	$5,757	$5,933	$6,055	$6,179	$6,306	$6,436	$6,568	$6,703
44	**Total**	**$1**	**$6**	**$885**	**$3,691**	**$5,757**	**$5,933**	**$6,055**	**$6,179**	**$6,306**	**$6,436**	**$6,568**	**$6,703**
45	**Escalated cumulative, all roles**	**$1**	**$7**	**$892**	**$4,583**	**$10,340**	**$16,274**	**$22,329**	**$28,508**	**$34,814**	**$41,250**	**$47,818**	**$54,521**
46	**Escalated Annual Benefit, Selected Role**	**$1**	**$6**	**$885**	**$3,691**	**$5,757**	**$5,933**	**$6,055**	**$6,179**	**$6,306**	**$6,436**	**$6,568**	**$6,703**
47	**Escalated Cumulative, Selected Role**	**$1**	**$7**	**$892**	**$4,583**	**$10,340**	**$16,274**	**$22,329**	**$28,508**	**$34,814**	**$41,250**	**$47,818**	**$54,521**

48	Peak annual Benefit, all roles, as modeled	$4,838	The highest year on the Total row of the schedule above.
49	**Peak annual Benefit, all roles, escalated**	**$6,703**	The highest year on the escalated Total row. Escalation can move which year that is, so this is not simply the peak above times one rate.
50	**Uplift on peak**	**38.56%**	

Workpaper 3-15F
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Asset Management Process External Labor
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Standardized Asset Management Process
Scope	**External Labor**

GLOSSARY

Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Three factors apply in Step 4: E1, E2, and E3, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the planned improvement. Set by role and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
Material or Services	Identifies whether the commodity code represents goods or services. External labor benefits apply to services.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.
Traceability	All external labor benefits trace to an identifiable commodity code and role. This describes how precisely the spend can be traced, not overhead loading; internal labor includes management overhead and benefits overhead in its spend base; external labor does not.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15G
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Asset Management Process Internal Labor

Line No.	A. CONFIDENCE RATES	Direct Time	Management OH	Benefits OH	Notes
1	Starting Realization Rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization Rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	Confidence Factor (Realization × Exclusivity %)	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. EROSION FACTOR BY ROLE

	Role	Erosion Factor - Capital	Erosion Factor - Expense Incl. NEE	Combined Erosion Factor
6	GIS Tech	100.00%	100.00%	100.00%
7	Portfolio Program Manager	100.00%	100.00%	100.00%
8	Asset Owner	100.00%	100.00%	100.00%
9	Asset Manager	100.00%	100.00%	100.00%

Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It is set by operating area.

C. IMPROVEMENT RANGE %[1] BY ROLE AND OPERATING AREA

	Role	Operating Area	Improvement Range %[1]
10	GIS Tech	Gas Distribution	35.00%
11	GIS Tech	Electric General	35.00%
12	GIS Tech	Shared Services	34.83%
13	GIS Tech	Gas Transmission	35.00%
14	GIS Tech	Gas General	35.00%
15	Portfolio Program Manager	Electric General	35.00%
16	Portfolio Program Manager	Substation	35.00%
17	Portfolio Program Manager	Shared Services	35.00%
18	Portfolio Program Manager	Gas Transmission	35.00%
19	Portfolio Program Manager	Power Generation	35.00%
20	Portfolio Program Manager	Electric Transmission	35.00%
21	Portfolio Program Manager	Gas General	35.00%
22	Portfolio Program Manager	Gas Facilities	35.00%
23	Asset Owner	Electric General	35.00%
24	Asset Owner	Gas Transmission	35.00%
25	Asset Owner	Gas Facilities	35.00%
26	Asset Manager	Electric Transmission	35.00%
27	Asset Manager	Gas Facilities	35.00%

Note: Benchmark improvement rate applied to the underlying General Ledger spend. Where multiple rates apply to a role and operating area, they are averaged based on the share of addressable spend at each rate.

	D. ADOPTION SCHEDULE		Notes
28	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
29	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
30	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-15H
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Asset Management Process External Labor

Line No.					Notes
	A. CONFIDENCE RATES				
1	Starting realization rate	25.00%			External labor starts at 25% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%			Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	35.00%			Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%			Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	26.25%			The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION - GLOBAL				
6	E1 - Value Driver scope	Per role - see section C			Erosion removes benefit tied to work that falls outside ERP's scope. The factor is the model's net benefit after erosion divided by its net benefit before, so 0.9984 means 0.16% is removed. It can be set by role and operating area.
7	E2 - Nuclear Generation	0.00%			No role-based benefits are applied to Nuclear Generation. Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
8	E3 - Mobile As-Builts	Per role - see section C			Takes out the share of the benefit that the Mobile As-Builts initiative already claims, so the same saving is not counted twice. The allocation reaches engineering roles only, so it is carried per role in section C rather than as a single global figure. A role showing 1.0000 carries no Mobile As-Builts adjustment.
	C. ROLE RATES AND EROSION				
	Role	**Improvement Range %[1]**	**E1 - Value Driver scope**	**E3 - Mobile As-Builts**	
9	Field Technician	27.62%	99.84%	100.00%	Improvement Range % is the role's "Shared Services" benchmark, the same benchmark the internal labor model uses for that role. Internal labor applies it org by org; here it is one blended figure across the role's whole spend, because contractor spend is not broken out by org the way payroll is.
10	Inspector	20.00%	99.84%	100.00%	
11	Designer	20.62%	69.50%	100.00%	
12	Engineer	20.00%	100.00%	82.00%	
13	GIS Tech	34.68%	100.00%	100.00%	
14	Project Manager	20.00%	100.00%	100.00%	
	D. ADOPTION SCHEDULE				
15	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
16	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
17	**Full run-rate (months after start of stabilization)**	**36**			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

E. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
18	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
19	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
22	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-16
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Automated Project and Investment Creation

WP#	Workpaper Name
	Summary WPs
3-16	Testimony Table
3-16A	Automated Project and Investment Creation Summary
	Detail WPs
3-16B	Automated Project and Investment Creation Walkthrough
	Assumptions & Reference Rates WPs
3-16C	Assumptions & Reference Rates - Automated Project and Investment Creation Internal Labor

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-36
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$6,434.7**

Workpaper 3-16A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Automated Project and Investment Creation
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Automated Project and Investment Creation
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to departments associated with gas and electric transmission and distribution projects due to automated project creation from Copperleaf portfolio items into SAP (common portfolio hierarchy with WBS auto-generation from templates), enabling faster project initiation, integrated cost models, and standardized stage-gate governance for improved capital planning and compliance.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Automated Project and Investment Creation	$841	$130	$971	$1,207	$186	$1,393
2	**Subtotal: Internal Labor**	**$841**	**$130**	**$971**	**$1,207**	**$186**	**$1,393**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$841**	**$130**	**$971**	**$1,207**	**$186**	**$1,393**
6	**Peak Annual Benefit, Un-escalated**	**$971**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Automated Project and Investment Creation	$0	$0	$0	$94	$546	$937	$971	$971	$971	$971	$971	$971	$7,403
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$94**	**$546**	**$937**	**$971**	**$971**	**$971**	**$971**	**$971**	**$971**	**$7,403**
10	Capital	$0	$0	$0	$82	$473	$812	$841	$841	$841	$841	$841	$841	$6,414
11	Expense incl. NEE	$0	$0	$0	$13	$73	$125	$130	$130	$130	$130	$130	$130	$989
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$94**	**$641**	**$1,578**	**$2,549**	**$3,520**	**$4,491**	**$5,461**	**$6,432**	**$7,403**	
13	**CUMULATIVE BENEFITS**	**$7,403**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Automated Project and Investment Creation	0	0	0	113	670	1,174	1,244	1,272	1,302	1,331	1,362	1,393	$9,862
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$113**	**$670**	**$1,174**	**$1,244**	**$1,272**	**$1,302**	**$1,331**	**$1,362**	**$1,393**	**$9,862**
16	Capital	$0	$0	$0	$97	$570	$996	$1,053	$1,074	$1,096	$1,118	$1,141	$1,164	$8,308
17	Expense incl. NEE	$0	$0	$0	$17	$100	$178	$191	$198	$206	$213	$221	$230	$1,554
18	**Cumulative, escalated**	**$0**	**$0**	**$0**	**$113**	**$783**	**$1,957**	**$3,201**	**$4,474**	**$5,775**	**$7,107**	**$8,469**	**$9,862**	

Workpaper 3-16B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Automated Project and Investment Creation
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	Electric Operations / Distribution Projects	7,987	739
2	Gas Operations / Distribution Projects	9,750	469
3	Gas Operations / Transmission Projects	5,632	2,394
4	**TOTAL DIRECT SPEND**	**$23,368**	**$3,602**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 8% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
5	Electric Operations / Distribution Projects	7,987	739	8.00%	639	59	698
6	Gas Operations / Distribution Projects	9,750	469	8.00%	780	38	818
7	Gas Operations / Transmission Projects	5,632	2,394	8.00%	451	192	642
8	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$23,368**	**$3,602**		**$1,869**	**$288**	**$2,158**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

The rates used in this step are documented on the Assumptions workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
9	Electric Operations / Distribution Projects	639	59	60.00%	75.00%	45.00%	288	27	314
10	Gas Operations / Distribution Projects	780	38	60.00%	75.00%	45.00%	351	17	368
11	Gas Operations / Transmission Projects	451	192	60.00%	75.00%	45.00%	203	86	289
12	**Pre-Erosion Net**	**$1,869**	**$288**				**$841**	**$130**	**$971**

STEP 4 OF 4: EROSION - NONE APPLIES

Adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
13	Capital	841	100.00%	841
14	Expense incl. NEE	130	100.00%	130
15	**TOTAL**	**$971**	**100.00%**	**$971**
16	**NET BENEFIT (POST-EROSION)**	**$971**		
17	Capital	$841		86.64%
18	Expense incl. NEE	$130		13.36%

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Starts**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**
19	Release 3	May 2030	Jun 2031	May 2033	$971
20	**Total**				**$971**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $970,924 = $94,395.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
21	Release 3 Ramp %	0.00%	0.00%		9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
22	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
23	Release 3 Benefit	$0	$0	$0	$94	$546	$937	$971	$971	$971	$971	$971	$971
24	**Annual Benefit**	**$0**	**$0**	**$0**	**$94**	**$546**	**$937**	**$971**	**$971**	**$971**	**$971**	**$971**	**$971**
25	**CUMULATIVE**	**$0**	**$0**	**$0**	**$94**	**$641**	**$1,578**	**$2,549**	**$3,520**	**$4,491**	**$5,461**	**$6,432**	**$7,403**

Workpaper 3-16B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Automated Project and Investment Creation
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
26	Capital Benefit	$0	$0	$0	$82	$473	$812	$841	$841	$841	$841	$841	$841
27	Expense incl. NEE Benefit	$0	$0	$0	$13	$73	$125	$130	$130	$130	$130	$130	$130
28	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
29	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$113**	**$670**	**$1,174**	**$1,244**	**$1,272**	**$1,302**	**$1,331**	**$1,362**	**$1,393**
31	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$113**	**$783**	**$1,957**	**$3,201**	**$4,474**	**$5,775**	**$7,107**	**$8,469**	**$9,862**

32	Peak annual Benefit, as modeled	971	The highest year on the Annual Benefit row above.
33	**Peak annual Benefit, escalated**	**$1,393**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
34	**Uplift on peak**	**43.51%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-16C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Automated Project and Investment Creation Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.
	B. BENEFIT %				
6	**Improvement Range %[1] (flat, direct time)**	8.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.
	C. PROCESS SCOPE %				
7	**Process Scope %**	6.22%			The share of a department's internal labor spend that this process touches.
	D. EROSION				
8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			
	E. ADOPTION SCHEDULE				
14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Asset Reliability and Work Execution Effectiveness
Value Driver - Modernized GIS Technology

WP#	Workpaper Name
	Summary WPs
3-17	Testimony Table
3-17A	Modernized GIS Technology Summary
	Detail Role WPs
3-17B	Asset Knowledge Manager - Internal Labor Benefit Walkthrough
3-17C	Asset Strategy - Internal Labor Benefit Walkthrough
3-17D	Control Center - Internal Labor Benefit Walkthrough
3-17E	Corrosion Engineering - Internal Labor Benefit Walkthrough
3-17F	Corrosion Field Technician - Internal Labor Benefit Walkthrough
3-17G	Distribution Integrity Management Program (DIMP) Engineers - Internal Labor Benefit Walkthrough
3-17H	Distribution Integrity Management Program (DIMP) GIS Technician - Internal Labor Benefit Walkthrough
3-17I	Electric Substation - Asset Strategy - Internal Labor Benefit Walkthrough
3-17J	Electric Substation - Engineer - Internal Labor Benefit Walkthrough
3-17K	Electric Substation - Project Engineer - Internal Labor Benefit Walkthrough
3-17L	Engineer - Internal Labor Benefit Walkthrough
3-17M	Estimator - Internal Labor Benefit Walkthrough
3-17N	FIMP Engineers & Technicians - Internal Labor Benefit Walkthrough
3-17O	Field Engineer - Internal Labor Benefit Walkthrough
3-17P	Gas Distribution Engineering & Design (GDED) Engineer - Internal Labor Benefit Walkthrough
3-17Q	Gas Project & Outage Management (GPOM) - Internal Labor Benefit Walkthrough
3-17R	Gas Transmission Engineering & Design (GTED) Engineer - Internal Labor Benefit Walkthrough
3-17S	LEAPS Specialist (Biology, Cultural, Environment) - Internal Labor Benefit Walkthrough
3-17T	Land Agent/Consultant - Internal Labor Benefit Walkthrough
3-17U	Land Planner - Internal Labor Benefit Walkthrough
3-17V	Land Technician - Internal Labor Benefit Walkthrough
3-17W	Planner - Internal Labor Benefit Walkthrough
3-17X	Planning Engineer - Internal Labor Benefit Walkthrough
3-17Y	Project Engineer - Internal Labor Benefit Walkthrough
3-17Z	Right of Way / Natural Resource Management - Internal Labor Benefit Walkthrough
3-17AA	System Operator - Internal Labor Benefit Walkthrough
3-17AB	Transmission Integrity Management Program (TIMP) Engineer - Internal Labor Benefit Walkthrough
3-17AC	Transmission Integrity Management Program (TIMP) GIS Technician - Internal Labor Benefit Walkthrough
3-17AD	Telecomm Field Worker - Internal Labor Benefit Walkthrough
3-17AE	Telecomm Product Owner - Internal Labor Benefit Walkthrough
3-17AF	Modernized GIS Technology - External Labor
3-17AG	Corrosion Field Technician - External Labor Benefit Walkthrough
3-17AH	Engineer - External Labor Benefit Walkthrough
3-17AI	Estimator - External Labor Benefit Walkthrough
3-17AJ	Gas Distribution Engineering & Design (GDED) Engineer - External Labor Benefit Walkthrough
3-17AK	Gas Transmission Engineering & Design (GTED) Engineer - External Labor Benefit Walkthrough
3-17AL	LEAPS Specialist (Biology, Cultural, Environment) - External Labor Benefit Walkthrough
3-17AM	Land Planner - External Labor Benefit Walkthrough
3-17AN	Land Technician - External Labor Benefit Walkthrough
3-17AO	Planner - External Labor Benefit Walkthrough
	Assumptions & Reference Rates WPs
3-17AW	Modernized GIS Technology - Assumptions - Internal Labor
3-17AX	Assumptions & Reference Rates - External Labor

Workpaper 3-17
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Asset Reliability and Work Execution Effectiveness Benefits - Testimony Table

TABLE 3-37
ASSET RELIABILITY AND WORK EXECUTION EFFECTIVENESS BENEFITS BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Work Efficiency	$ 1.4	$ 13.4	$ 88.5	$ 299.4	$ 490.7	$ 544.0	$ 560.0	$ 573.1	$ 586.5	$ 600.3	$ 614.4	$ 628.9	$ 5,000.5
2	Expansion of Compatible Units	0.1	1.3	3.7	9.2	18.6	24.8	26.0	26.7	27.4	28.1	28.9	29.7	224.5
3	Enhanced Design Management / Drawing Tools	0.0	0.0	2.9	13.0	23.4	27.3	28.1	28.7	29.4	30.0	30.6	31.3	244.8
4	Effective Project Management Reconciliation	0.0	0.4	1.4	4.1	9.6	13.6	14.2	14.5	14.8	15.2	15.5	15.9	119.3
5	Standardized Asset Management Process	0.0	0.2	1.7	6.6	12.7	15.7	16.4	16.8	17.2	17.7	18.1	18.6	141.6
6	Automated Project and Investment Creation	-	-	-	0.1	0.7	1.2	1.2	1.3	1.3	1.3	1.4	1.4	9.9
7	**ERP Total**	**$ 1.6**	**$ 15.3**	**$ 98.3**	**$ 332.4**	**$ 555.6**	**$ 626.5**	**$ 645.9**	**$ 661.0**	**$ 676.6**	**$ 692.6**	**$ 709.0**	**$ 725.8**	**$ 5,740.6**
8	Modernized GIS Technology	$ -	$ 1.2	$ 19.2	$ 59.7	$ 71.6	$ 74.3	$ 76.3	$ 78.4	$ 80.5	$ 82.7	$ 84.9	$ 65.4	$ 694.1
9	**GIS Total**	**$ -**	**$ 1.2**	**$ 19.2**	**$ 59.7**	**$ 71.6**	**$ 74.3**	**$ 76.3**	**$ 78.4**	**$ 80.5**	**$ 82.7**	**$ 84.9**	**$ 65.4**	**$ 694.1**
10	**Total**	**$ 1.6**	**$ 16.6**	**$ 117.5**	**$ 392.1**	**$ 627.2**	**$ 700.8**	**$ 722.2**	**$ 739.4**	**$ 757.1**	**$ 775.3**	**$ 793.9**	**$ 791.2**	**$ 6,434.7**

Workpaper 3-17A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Modernized GIS Technology
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Calculation Method	Role-based

DEFINITION

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live and mature.

		Un-Escalated			Escalated		
Line No.	**Component**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Exclusivity)**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Exclusivity)**
	Internal Labor						
1	Asset Knowledge Manager	$72	$29	$101	$100	$51	$151
2	Asset Strategy	$951	$350	$1,300	$1,315	$620	$1,935
3	Control Center	$205	$212	$417	$283	$375	$658
4	Corrosion Engineering	$136	$125	$261	$188	$222	$410
5	Corrosion Field Technician	$210	$217	$428	$291	$385	$676
6	Distribution Integrity Management Program (DIMP) Engineers	$120	$110	$230	$166	$196	$361
7	Distribution Integrity Management Program (DIMP) GIS Technician	$72	$66	$138	$99	$117	$217
8	Electric Substation - Asset Strategy	$68	$25	$93	$94	$44	$139
9	Electric Substation - Engineer	$2,091	$769	$2,860	$2,892	$1,363	$4,255
10	Electric Substation - Project Engineer	$752	$277	$1,028	$1,040	$490	$1,530
11	Engineer	$4,763	$6,545	$11,308	$6,587	$11,598	$18,186
12	Estimator	$1,518	$1,059	$2,577	$2,100	$1,876	$3,976
13	FIMP Engineers & Technicians	$70	$65	$135	$97	$115	$211
14	Field Engineer	$565	$441	$1,006	$781	$782	$1,563
15	Gas Distribution Engineering & Design (GDED) Engineer	$921	$897	$1,818	$1,274	$1,589	$2,863
16	Gas Project & Outage Management (GPOM)	$125	$161	$286	$173	$285	$458
17	Gas Transmission Engineering & Design (GTED) Engineer	$1,284	$1,214	$2,499	$1,776	$2,152	$3,929
18	LEAPS Specialist (Biology, Cultural, Environment)	$110	$894	$1,004	$153	$1,584	$1,737
19	Land Agent/Consultant	$104	$827	$931	$144	$1,465	$1,609
20	Land Planner	$133	$1,105	$1,238	$184	$1,959	$2,143
21	Land Technician	$87	$639	$726	$120	$1,132	$1,252
22	Planner	$21	$153	$174	$29	$272	$300
23	Planning Engineer	$927	$509	$1,436	$1,282	$903	$2,184
24	Project Engineer	$438	$161	$599	$606	$286	$891
25	Right of Way / Natural Resource Management	$19	$137	$156	$26	$243	$269
26	System Operator	$198	$744	$942	$273	$1,319	$1,592
27	Transmission Integrity Management Program (TIMP) Engineer	$107	$99	$206	$148	$175	$323
28	Transmission Integrity Management Program (TIMP) GIS Technician	$67	$62	$130	$93	$110	$203
29	Telecomm Field Worker	$745	$841	$1,586	$1,031	$1,490	$2,521
30	Telecomm Product Owner	$176	$198	$374	$243	$351	$594
31	**Subtotal: Internal Labor**	**$17,053**	**$18,932**	**$35,986**	**$23,588**	**$33,548**	**$57,136**
32	**External Labor**	**$4,514**	**$17,107**	**$21,621**	**$6,244**	**$23,857**	**$30,100**
33	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
34	**TOTAL VALUE DRIVER BENEFIT**	**$21,568**	**$36,039**	**$57,607**	**$29,832**	**$57,404**	**$87,236**
35	**Peak Annual Benefit**	**$57,607**					
36	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

Workpaper 3-17A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Modernized GIS Technology
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Calculation Method	Role-based

										Peak Benefit Reached		Peak Benefit				
	Role	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
37	Internal labor - Asset Knowledge Manager	$0	$0	$0	$1	$24	$79	$100	$101	$101	$101	$101	$101	$101	$76	$884
38	Internal labor - Asset Strategy	$0	$0	$0	$0	$277	$1,008	$1,286	$1,300	$1,300	$1,300	$1,300	$1,300	$1,300	$975	$11,350
39	Internal labor - Control Center	$0	$0	$0	$31	$189	$404	$417	$417	$417	$417	$417	$417	$417	$312	$3,853
40	Internal labor - Corrosion Engineering	$0	$0	$0	$21	$122	$254	$261	$261	$261	$261	$261	$261	$261	$196	$2,420
41	Internal labor - Corrosion Field Technician	$0	$0	$0	$0	$36	$142	$277	$407	$428	$428	$428	$428	$428	$321	$3,322
42	Internal labor - Distribution Integrity Management Program (DIMP) Engineers	$0	$0	$0	$28	$127	$225	$230	$230	$230	$230	$230	$230	$230	$173	$2,164
43	Internal labor - Distribution Integrity Management Program (DIMP) GIS Technician	$0	$0	$0	$16	$74	$135	$138	$138	$138	$138	$138	$138	$138	$104	$1,295
44	Internal labor - Electric Substation - Asset Strategy	$0	$0	$0	$0	$20	$74	$92	$93	$93	$93	$93	$93	$93	$70	$817
45	Internal labor - Electric Substation - Engineer	$0	$0	$0	$0	$627	$2,262	$2,832	$2,860	$2,860	$2,860	$2,860	$2,860	$2,860	$2,145	$25,028
46	Internal labor - Electric Substation - Project Engineer	$0	$0	$0	$0	$211	$778	$1,016	$1,028	$1,028	$1,028	$1,028	$1,028	$1,028	$771	$8,946
47	Internal labor - Engineer	$0	$0	$0	$0	$2,405	$8,760	$11,184	$11,308	$11,308	$11,308	$11,308	$11,308	$11,308	$8,481	$98,679
48	Internal labor - Estimator	$0	$0	$0	$36	$722	$2,234	$2,562	$2,577	$2,577	$2,577	$2,577	$2,577	$2,577	$1,933	$22,947
49	Internal labor - FIMP Engineers & Technicians	$0	$0	$0	$17	$77	$132	$135	$135	$135	$135	$135	$135	$135	$101	$1,270
50	Internal labor - Field Engineer	$0	$0	$0	$0	$290	$968	$1,006	$1,006	$1,006	$1,006	$1,006	$1,006	$1,006	$755	$9,056
51	Internal labor - Gas Distribution Engineering & Design (GDED) Engineer	$0	$0	$0	$218	$1,007	$1,775	$1,818	$1,818	$1,818	$1,818	$1,818	$1,818	$1,818	$1,363	$17,089
52	Internal labor - Gas Project & Outage Management (GPOM)	$0	$0	$0	$0	$82	$275	$286	$286	$286	$286	$286	$286	$286	$214	$2,571
53	Internal labor - Gas Transmission Engineering & Design (GTED) Engineer	$0	$0	$0	$300	$1,384	$2,440	$2,499	$2,499	$2,499	$2,499	$2,499	$2,499	$2,499	$1,874	$23,489
54	Internal labor - LEAPS Specialist (Biology, Cultural, Environment)	$0	$0	$0	$0	$151	$623	$984	$1,004	$1,004	$1,004	$1,004	$1,004	$1,004	$753	$8,536
55	Internal labor - Land Agent/Consultant	$0	$0	$0	$0	$140	$577	$912	$931	$931	$931	$931	$931	$931	$698	$7,913
56	Internal labor - Land Planner	$0	$0	$0	$0	$186	$768	$1,214	$1,238	$1,238	$1,238	$1,238	$1,238	$1,238	$929	$10,525
57	Internal labor - Land Technician	$0	$0	$0	$0	$51	$363	$675	$726	$726	$726	$726	$726	$726	$544	$5,985
58	Internal labor - Planner	$0	$0	$0	$0	$26	$108	$171	$174	$174	$174	$174	$174	$174	$131	$1,480
59	Internal labor - Planning Engineer	$0	$0	$0	$88	$528	$1,194	$1,425	$1,436	$1,436	$1,436	$1,436	$1,436	$1,436	$1,077	$12,928
60	Internal labor - Project Engineer	$0	$0	$0	$0	$113	$427	$590	$599	$599	$599	$599	$599	$599	$449	$5,174
61	Internal labor - Right of Way / Natural Resource Management	$0	$0	$0	$0	$23	$97	$153	$156	$156	$156	$156	$156	$156	$117	$1,323
62	Internal labor - System Operator	$0	$0	$0	$0	$205	$741	$932	$942	$942	$942	$942	$942	$942	$706	$8,235
63	Internal labor - Transmission Integrity Management Program (TIMP) Engineer	$0	$0	$0	$26	$118	$201	$206	$206	$206	$206	$206	$206	$206	$154	$1,940
64	Internal labor - Transmission Integrity Management Program (TIMP) GIS Technician	$0	$0	$0	$15	$70	$126	$130	$130	$130	$130	$130	$130	$130	$97	$1,215
65	Internal labor - Telecomm Field Worker	$0	$0	$0	$0	$458	$1,525	$1,586	$1,586	$1,586	$1,586	$1,586	$1,586	$1,586	$1,190	$14,275
66	Internal labor - Telecomm Product Owner	$0	$0	$0	$0	$108	$359	$374	$374	$374	$374	$374	$374	$374	$280	$3,362
67	**Subtotal: Internal Labor**	**$0**	**$0**	**$0**	**$797**	**$9,851**	**$29,053**	**$35,489**	**$35,965**	**$35,986**	**$35,986**	**$35,986**	**$35,986**	**$35,986**	**$26,989**	**$318,072**
68	**External labor**	**$0**	**$0**	**$0**	**$247**	**$6,231**	**$19,855**	**$21,495**	**$21,621**	**$21,621**	**$21,621**	**$21,621**	**$21,621**	**$21,621**	**$16,216**	**$193,768**
69	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$1,044**	**$16,082**	**$48,907**	**$56,984**	**$57,585**	**$57,607**	**$57,607**	**$57,607**	**$57,607**	**$57,607**	**$43,205**	**$511,841**
70	Capital	$0	$0	$0	$423	$6,176	$18,399	$21,356	$21,557	$21,568	$21,568	$21,568	$21,568	$21,568	$16,176	$191,926
71	Expense Incl. NEE	$0	$0	$0	$621	$9,905	$30,508	$35,628	$36,028	$36,039	$36,039	$36,039	$36,039	$36,039	$27,029	$319,915
72	**CUMULATIVE**	**$0**	**$0**	**$0**	**$1,044**	**$17,126**	**$66,033**	**$123,017**	**$180,602**	**$238,209**	**$295,816**	**$353,422**	**$411,029**	**$468,636**	**$511,841**	
73	**CUMULATIVE BENEFITS**	**$511,841**														

Workpaper 3-17A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Modernized GIS Technology
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Calculation Method	Role-based

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own workpaper, where the rate is shown year by year.

	Component	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
74	Internal labor - Asset Knowledge Manager	$0	$0	$0	$1	$29	$97	$125	$129	$133	$136	$139	$143	$147	$113	$1,192
75	Internal labor - Asset Strategy	$0	$0	$0	$0	$330	$1,229	$1,606	$1,664	$1,706	$1,749	$1,793	$1,839	$1,886	$1,451	$15,253
76	Internal labor - Control Center	$0	$0	$0	$37	$230	$506	$537	$552	$568	$585	$603	$621	$639	$494	$5,373
77	Internal labor - Corrosion Engineering	$0	$0	$0	$25	$149	$317	$335	$345	$355	$365	$376	$387	$398	$307	$3,357
78	Internal labor - Corrosion Field Technician	$0	$0	$0	$0	$44	$178	$357	$539	$584	$601	$619	$638	$657	$507	$4,724
79	Internal labor - Distribution Integrity Management Program (DIMP) Engineers	$0	$0	$0	$33	$155	$281	$296	$304	$313	$322	$331	$341	$351	$271	$2,997
80	Internal labor - Distribution Integrity Management Program (DIMP) GIS Technician	$0	$0	$0	$18	$90	$168	$177	$182	$188	$193	$199	$205	$211	$163	$1,793
81	Internal labor - Electric Substation - Asset Strategy	$0	$0	$0	$0	$24	$90	$115	$119	$122	$125	$129	$132	$135	$104	$1,097
82	Internal labor - Electric Substation - Engineer	$0	$0	$0	$0	$747	$2,758	$3,535	$3,659	$3,751	$3,846	$3,945	$4,045	$4,149	$3,192	$33,627
83	Internal labor - Electric Substation - Project Engineer	$0	$0	$0	$0	$252	$949	$1,268	$1,315	$1,349	$1,383	$1,418	$1,454	$1,491	$1,147	$12,026
84	Internal labor - Engineer	$0	$0	$0	$0	$2,948	$11,055	$14,537	$15,144	$15,610	$16,091	$16,589	$17,104	$17,636	$13,639	$140,354
85	Internal labor - Estimator	$0	$0	$0	$42	$872	$2,768	$3,259	$3,367	$3,461	$3,558	$3,657	$3,760	$3,866	$2,982	$31,594
86	Internal labor - FIMP Engineers & Technicians	$0	$0	$0	$20	$94	$164	$173	$178	$183	$188	$194	$200	$205	$159	$1,758
87	Internal labor - Field Engineer	$0	$0	$0	$0	$351	$1,202	$1,285	$1,320	$1,358	$1,396	$1,436	$1,477	$1,520	$1,173	$12,518
88	Internal labor - Gas Distribution Engineering & Design (GDED) Engineer	$0	$0	$0	$258	$1,224	$2,219	$2,337	$2,405	$2,475	$2,548	$2,623	$2,700	$2,781	$2,147	$23,717
89	Internal labor - Gas Project & Outage Management (GPOM)	$0	$0	$0	$0	$101	$346	$370	$382	$393	$405	$418	$431	$444	$343	$3,633
90	Internal labor - Gas Transmission Engineering & Design (GTED) Engineer	$0	$0	$0	$355	$1,681	$3,047	$3,210	$3,302	$3,398	$3,497	$3,600	$3,706	$3,816	$2,946	$32,558
91	Internal labor - LEAPS Specialist (Biology, Cultural, Environment)	$0	$0	$0	$0	$190	$812	$1,330	$1,405	$1,456	$1,508	$1,562	$1,618	$1,676	$1,302	$12,860
92	Internal labor - Land Agent/Consultant	$0	$0	$0	$0	$176	$753	$1,233	$1,303	$1,349	$1,398	$1,448	$1,500	$1,553	$1,207	$11,918
93	Internal labor - Land Planner	$0	$0	$0	$0	$234	$1,002	$1,640	$1,734	$1,796	$1,860	$1,927	$1,996	$2,068	$1,607	$15,864
94	Internal labor - Land Technician	$0	$0	$0	$0	$64	$473	$911	$1,014	$1,050	$1,088	$1,126	$1,167	$1,209	$939	$9,040
95	Internal labor - Planner	$0	$0	$0	$0	$33	$141	$230	$243	$252	$261	$270	$280	$290	$225	$2,226
96	Internal labor - Planning Engineer	$0	$0	$0	$104	$638	$1,473	$1,799	$1,861	$1,911	$1,962	$2,015	$2,070	$2,126	$1,638	$17,598
97	Internal labor - Project Engineer	$0	$0	$0	$0	$134	$521	$737	$766	$786	$806	$826	$847	$869	$668	$6,961
98	Internal labor - Right of Way / Natural Resource Management	$0	$0	$0	$0	$29	$126	$206	$218	$225	$233	$242	$250	$259	$201	$1,990
99	Internal labor - System Operator	$0	$0	$0	$0	$256	$957	$1,244	$1,300	$1,344	$1,390	$1,438	$1,488	$1,539	$1,194	$12,150
100	Internal labor - Transmission Integrity Management Program (TIMP) Engineer	$0	$0	$0	$31	$143	$251	$264	$272	$279	$288	$296	$305	$314	$242	$2,685
101	Internal labor - Transmission Integrity Management Program (TIMP) GIS Technician	$0	$0	$0	$17	$85	$158	$166	$171	$176	$181	$187	$192	$198	$153	$1,683
102	Internal labor - Telecomm Field Worker	$0	$0	$0	$0	$558	$1,914	$2,049	$2,109	$2,172	$2,237	$2,305	$2,375	$2,446	$1,891	$20,057
103	Internal labor - Telecomm Product Owner	$0	$0	$0	$0	$131	$451	$483	$497	$512	$527	$543	$559	$576	$445	$4,724
104	External labor	$0	$0	$0	$278	$7,161	$23,292	$25,763	$26,476	$27,060	$27,640	$28,236	$28,844	$29,466	$22,575	$246,790
105	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$1,220**	**$19,153**	**$59,697**	**$71,576**	**$74,274**	**$76,313**	**$78,369**	**$80,490**	**$82,674**	**$84,922**	**$65,427**	**$694,114**
106	Capital, escalated	$0	$0	$0	$483	$7,172	$21,751	$25,713	$26,454	$26,996	$27,538	$28,095	$28,662	$29,241	$22,374	$244,480
107	Expense Incl. NEE, escalated	$0	$0	$0	$737	$11,980	$37,946	$45,863	$47,820	$49,317	$50,831	$52,395	$54,012	$55,681	$43,053	$449,635
108	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$1,220**	**$20,373**	**$80,070**	**$151,645**	**$225,919**	**$302,232**	**$380,601**	**$461,092**	**$543,765**	**$628,687**	**$694,114**	

Workpaper 3-17B
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Knowledge Manager - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Asset Knowledge Manager

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission & Distribution	702	$265	$335	$126	$46	$17	$1,083	$408
2	Gas Transmission & Distribution	55	$51	$25	$23	$0	$0	$80	$74
3	**TOTAL**	**757**	**$316**	**$360**	**$149**	**$46**	**$17**	**$1,163**	**$482**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough		*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
4	Electric Transmission & Distribution	Direct Time	$702	$265	18.33%	$129	$49
5		Management OH	$335	$126	18.33%	$61	$23
6		Benefits OH	$46	$17	18.33%	$8	$3
7		**Electric Transmission & Distribution Total**	**$1,083**	**$408**	**18.33%**	**$199**	**$75**
8	Gas Transmission & Distribution	Direct Time	$55	$51	10.00%	$6	$5
9		Management OH	$25	$23	10.00%	$3	$2
10		Benefits OH	$0	$0	10.00%	$0	$0
11		**Gas Transmission & Distribution Total**	**$80**	**$74**	**10.00%**	**$8**	**$7**
12		**TOTAL**	**$1,163**	**$482**		**$207**	**$82**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 47). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
13	Electric Transmission & Distribution	Direct Time	$129	$49	55.00%	75.00%	41.25%	$53	$20
14		Management OH	$61	$23	30.00%	75.00%	22.50%	$14	$5
15		Benefits OH	$8	$3	30.00%	75.00%	22.50%	$2	$1
16		**Electric Transmission & Distribution Total**	**$199**	**$75**				**$69**	**$26**
17	Gas Transmission & Distribution	Direct Time	$6	$5	60.00%	75.00%	45.00%	$2	$2
18		Management OH	$3	$2	35.00%	75.00%	26.25%	$1	$1
19		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
20		**Gas Transmission & Distribution Total**	**$8**	**$7**				**$3**	**$3**
21		**TOTAL**	**$207**	**$82**				**$72**	**$29**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
22	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	4
23	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	4
24	Capital share of benefit					72.61%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
25	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
26	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
27	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$20**	**$73**	**$94**	**$95**	**$95**	**$95**	**$95**	**$95**	**$95**	**$71**	**$827**
28	Capital	$0	$0	$0	$0	$15	$53	$68	$69	$69	$69	$69	$69	$69	$52	$601
29	Expense Incl. NEE	$0	$0	$0	$0	$6	$20	$26	$26	$26	$26	$26	$26	$26	$19	$227

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
30	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	1
31	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
32	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
33	**Annual Benefit**	**$0**	**$0**	**$0**	**$1**	**$4**	**$6**	**$6**	**$6**	**$6**	**$6**	**$6**	**$6**	**$6**	**$5**	**$57**
34	Capital	$0	$0	$0	$0	$2	$3	$3	$3	$3	$3	$3	$3	$3	$2	$30
35	Expense Incl. NEE	$0	$0	$0	$0	$2	$3	$3	$3	$3	$3	$3	$3	$3	$2	$27

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
36	Capital benefit, before escalation	$0	$0	$0	$0	$17	$56	$71	$72	$72	$72	$72	$72	$72	$54	$630
37	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$7	$23	$29	$29	$29	$29	$29	$29	$29	$22	$254
38	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
39	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
40	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$1**	**$29**	**$97**	**$125**	**$129**	**$133**	**$136**	**$139**	**$143**	**$147**	**$113**	**$1,192**
41	Capital benefit, escalated	$0	$0	$0	$1	$19	$67	$86	$88	$90	$92	$94	$96	$98	$75	$804
42	Expense benefit incl. NEE, escalated	$0	$0	$0	$1	$9	$30	$39	$41	$43	$44	$46	$47	$49	$38	$388
43	Cumulative, escalated	$0	$0	$0	$1	$30	$127	$251	$381	$513	$649	$789	$932	$1,079	$1,192	
44	Peak Annual Benefit, before escalation	$101	The highest year of the before-escalation Capital + Expense rows above.													
45	Peak Annual Benefit, Escalated	$147	The highest year on the Escalated Annual Benefit row above.													
46	Uplift on the highest year	45.66%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17B
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Knowledge Manager - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Asset Knowledge Manager

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission & Distribution x Asset Knowledge Manager

A. BENEFIT PERCENTAGES

		Benefit %
47	Core Enhancements Improvement %	10.00%
48	Additional Business Enhancements Impact %	8.33%
49	**Improvement Range %[1] (combined)**	**18.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
50	Phase 0 Confidence	50.00%		
51	ED O&M / Medical Confidence		25.00%	25.00%
52	Value Validation Adjustment	5.00%	5.00%	5.00%
53	Value Lever Adjustment	0.00%	0.00%	0.00%
54	ERP Persona Adjustment	0.00%	0.00%	0.00%
55	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
56	Exclusivity %	75.00%

Assumptions & Reference Rates - Gas Transmission & Distribution x Asset Knowledge Manager

A. BENEFIT PERCENTAGES

		Benefit %
57	Core Enhancements Improvement %	10.00%
58	Additional Business Enhancements Impact %	0.00%
59	**Improvement Range %[1] (combined)**	**10.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
60	Phase 0 Confidence	50.00%		
61	ED O&M / Medical Confidence		25.00%	25.00%
62	Value Validation Adjustment	10.00%	10.00%	10.00%
63	Value Lever Adjustment	0.00%	0.00%	0.00%
64	ERP Persona Adjustment	0.00%	0.00%	0.00%
65	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
66	Exclusivity %	75.00%

GLOSSARY

67	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
68	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
69	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
70	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
71	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
72	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
73	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
74	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
75	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
76	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17C
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Strategy - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Asset Strategy

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission & Distribution	$8,776	$3,229	$5,599	$2,060	$1,395	$513	$15,771	$5,802
2	**TOTAL**	**$8,776**	**$3,229**	**$5,599**	**$2,060**	**$1,395**	**$513**	**$15,771**	**$5,802**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough		*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Electric Transmission & Distribution	Direct Time	$8,759	$3,222	18.33%	$1,606	$591
4		Management OH	$5,599	$2,060	18.33%	$1,027	$378
5		Benefits OH	$1,390	$511	18.33%	$255	$94
6		**Electric Transmission & Distribution Total**	**$15,748**	**$5,794**	**18.33%**	**$2,887**	**$1,062**
7		**TOTAL**	**$15,748**	**$5,794**		**$2,887**	**$1,062**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Electric Transmission & Distribution	Direct Time	$1,606	$591	55.00%	75.00%	41.25%	$662	$244
9		Management OH	$1,027	$378	30.00%	75.00%	22.50%	$231	$85
10		Benefits OH	$255	$94	30.00%	75.00%	22.50%	$57	$21
11		**Electric Transmission & Distribution Total**	**$2,887**	**$1,062**				**$951**	**$350**
12		**TOTAL**	**$2,887**	**$1,062**				**$951**	**$350**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Electric Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	59
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	49
15	Capital share of benefit					73.10%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$277**	**$1,008**	**$1,286**	**$1,300**	**$1,300**	**$1,300**	**$1,300**	**$1,300**	**$1,300**	**$975**	**$11,350**
19	Capital	$0	$0	$0	$0	$202	$737	$940	$951	$951	$951	$951	$951	$951	$713	$8,297
20	Expense Incl. NEE	$0	$0	$0	$0	$74	$271	$346	$350	$350	$350	$350	$350	$350	$262	$3,053

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$0	$202	$737	$940	$951	$951	$951	$951	$951	$951	$713	$8,297
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$74	$271	$346	$350	$350	$350	$350	$350	$350	$262	$3,053
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$330**	**$1,229**	**$1,606**	**$1,664**	**$1,706**	**$1,749**	**$1,793**	**$1,839**	**$1,886**	**$1,451**	**$15,253**
26	Capital benefit, escalated	$0	$0	$0	$0	$235	$871	$1,132	$1,167	$1,190	$1,214	$1,238	$1,263	$1,289	$986	$10,586
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$95	$358	$474	$497	$516	$535	$555	$576	$597	$465	$4,667
28	Cumulative, escalated	$0	$0	$0	$0	$330	$1,559	$3,165	$4,829	$6,534	$8,283	$10,076	$11,916	$13,802	$15,253	

29	Peak Annual Benefit, before escalation	$1,300	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$1,886	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	45.05%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17C
Pacific Gas and Electric Company
ERP and GIS Transformation
Asset Strategy - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Asset Strategy

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission & Distribution x Asset Strategy

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	10.00%
33	Additional Business Enhancements Impact %	8.33%
34	**Improvement Range %[1] (combined)**	**18.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	5.00%	5.00%	5.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17D
Pacific Gas and Electric Company
ERP and GIS Transformation
Control Center - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Control Center

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission & Distribution	$3,739	$3,861	$2,204	$2,276	$50	$52	$5,993	$6,188
2	**TOTAL**	**$3,739**	**$3,861**	**$2,204**	**$2,276**	**$50**	**$52**	**$5,993**	**$6,188**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission & Distribution	Direct Time	$3,739	$3,861	10.00%	$374	$386
4		Management OH	$2,204	$2,276	10.00%	$220	$228
5		Benefits OH	$50	$52	10.00%	$5	$5
6		**Gas Transmission & Distribution Total**	**$5,993**	**$6,188**	**10.00%**	**$599**	**$619**
7		**TOTAL**	**$5,993**	**$6,188**		**$599**	**$619**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission & Distribution	Direct Time	$374	$386	55.00%	75.00%	41.25%	$154	$159
9		Management OH	$220	$228	30.00%	75.00%	22.50%	$50	$51
10		Benefits OH	$5	$5	30.00%	75.00%	22.50%	$1	$1
11		**Gas Transmission & Distribution Total**	**$599**	**$619**				**$205**	**$212**
12		**TOTAL**	**$599**	**$619**				**$205**	**$212**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	17
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	17
15	Capital share of benefit					49.20%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$31**	**$189**	**$404**	**$417**	**$417**	**$417**	**$417**	**$417**	**$417**	**$417**	**$312**	**$3,853**
19	Capital	$0	$0	$0	$15	$93	$199	$205	$205	$205	$205	$205	$205	$205	$154	$1,896
20	Expense Incl. NEE	$0	$0	$0	$16	$96	$205	$212	$212	$212	$212	$212	$212	$212	$159	$1,958

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$15	$93	$199	$205	$205	$205	$205	$205	$205	$205	$154	$1,896
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$16	$96	$205	$212	$212	$212	$212	$212	$212	$212	$159	$1,958
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$37**	**$230**	**$506**	**$537**	**$552**	**$568**	**$585**	**$603**	**$621**	**$639**	**$494**	**$5,373**
26	Capital benefit, escalated	$0	$0	$0	$18	$108	$235	$247	$251	$257	$262	$267	$272	$278	$213	$2,407
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$19	$122	$271	$290	$301	$312	$324	$336	$348	$361	$281	$2,966
28	Cumulative, escalated	$0	$0	$0	$37	$267	$774	$1,310	$1,862	$2,431	$3,016	$3,619	$4,240	$4,879	$5,373	
29	Peak Annual Benefit, before escalation	417	The highest year of the before-escalation Capital + Expense rows above.													
30	Peak Annual Benefit, Escalated	639	The highest year on the Escalated Annual Benefit row above.													
31	Uplift on the highest year	53.47%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17D
Pacific Gas and Electric Company
ERP and GIS Transformation
Control Center - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Control Center

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission & Distribution x Control Center

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	5.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**10.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	5.00%	5.00%	5.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17E
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Engineering - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Engineering

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission & Distribution	$1,065	$982	$676	$624	$63	$58	$1,804	$1,663
2	**TOTAL**	**$1,065**	**$982**	**$676**	**$624**	**$63**	**$58**	**$1,804**	**$1,663**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission & Distribution	Direct Time	$1,065	$982	18.33%	$195	$180
4		Management OH	$676	$624	18.33%	$124	$114
5		Benefits OH	$63	$58	18.33%	$11	$11
6		**Gas Transmission & Distribution Total**	**$1,804**	**$1,663**	**18.33%**	**$331**	**$305**
7		**TOTAL**	**$1,804**	**$1,663**		**$331**	**$305**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission & Distribution	Direct Time	$195	$180	65.00%	75.00%	48.75%	$95	$88
9		Management OH	$124	$114	40.00%	75.00%	30.00%	$37	$34
10		Benefits OH	$11	$11	40.00%	75.00%	30.00%	$3	$3
11		**Gas Transmission & Distribution Total**	**$331**	**$305**				**$136**	**$125**
12		**TOTAL**	**$331**	**$305**				**$136**	**$125**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	12
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	10
15	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$21**	**$122**	**$254**	**$261**	**$261**	**$261**	**$261**	**$261**	**$261**	**$261**	**$196**	**$2,420**
19	Capital	$0	$0	$0	$11	$64	$132	$136	$136	$136	$136	$136	$136	$136	$102	$1,259
20	Expense Incl. NEE	$0	$0	$0	$10	$59	$122	$125	$125	$125	$125	$125	$125	$125	$94	$1,161

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$11	$64	$132	$136	$136	$136	$136	$136	$136	$136	$102	$1,259
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$10	$59	$122	$125	$125	$125	$125	$125	$125	$125	$94	$1,161
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$25**	**$149**	**$317**	**$335**	**$345**	**$355**	**$365**	**$376**	**$387**	**$398**	**$307**	**$3,357**
26	Capital benefit, escalated	$0	$0	$0	$13	$74	$156	$164	$167	$170	$173	$177	$180	$184	$141	$1,599
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$13	$75	$161	$171	$178	$185	$191	$199	$206	$214	$166	$1,758
28	Cumulative, escalated	$0	$0	$0	$25	$174	$491	$826	$1,170	$1,525	$1,889	$2,265	$2,652	$3,050	$3,357	

29	Peak Annual Benefit, before escalation	$261	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$398	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	52.47%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17E
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Engineering - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Engineering

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission & Distribution x Corrosion Engineering

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	10.00%
33	Additional Business Enhancements Impact %	8.33%
34	**Improvement Range %' (combined)**	**18.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	15.00%	15.00%	15.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**65.00%**	**40.00%**	**40.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17F
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Field Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Field Technician

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission & Distribution	$1,051	$1,085	$691	$714	$78	$80	$1,820	$1,879
2	**TOTAL**	**$1,051**	**$1,085**	**$691**	**$714**	**$78**	**$80**	**$1,820**	**$1,879**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission & Distribution	Direct Time	$1,051	$1,085	28.33%	$298	$307
4		Management OH	$691	$714	28.33%	$196	$202
5		Benefits OH	$78	$80	28.33%	$22	$23
6		**Gas Transmission & Distribution Total**	**$1,820**	**$1,879**	**28.33%**	**$516**	**$532**
7		**TOTAL**	**$1,820**	**$1,879**		**$516**	**$532**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission & Distribution	Direct Time	$298	$307	65.00%	75.00%	48.75%	$145	$150
9		Management OH	$196	$202	40.00%	75.00%	30.00%	$59	$61
10		Benefits OH	$22	$23	40.00%	75.00%	30.00%	$7	$7
11		**Gas Transmission & Distribution Total**	**$516**	**$532**				**$210**	**$217**
12		**TOTAL**	**$516**	**$532**				**$210**	**$217**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Jul 2031	24	Jul 2033	Sep 2039	25
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	10
15	Capital share of benefit					49.20%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	0.00	0.84	6.00	11.16	12.00	12.00	12.00	12.00	12.00	9.00	87.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$36**	**$142**	**$277**	**$407**	**$428**	**$428**	**$428**	**$428**	**$428**	**$321**	**$3,322**
19	Capital	$0	$0	$0	$0	$18	$70	$136	$200	$210	$210	$210	$210	$210	$158	$1,634
20	Expense Incl. NEE	$0	$0	$0	$0	$18	$72	$141	$207	$217	$217	$217	$217	$217	$163	$1,688

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$0	$18	$70	$136	$200	$210	$210	$210	$210	$210	$158	$1,634
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$18	$72	$141	$207	$217	$217	$217	$217	$217	$163	$1,688
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$44**	**$178**	**$357**	**$539**	**$584**	**$601**	**$619**	**$638**	**$657**	**$507**	**$4,724**
26	Capital benefit, escalated	$0	$0	$0	$0	$21	$83	$164	$246	$263	$269	$274	$280	$285	$218	$2,103
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$23	$95	$193	$294	$320	$332	$345	$358	$371	$289	$2,621
28	Cumulative, escalated	$0	$0	$0	$0	$44	$222	$579	$1,118	$1,702	$2,303	$2,922	$3,560	$4,216	$4,724	

29	Peak Annual Benefit, before escalation	428	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	657	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	53.47%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17F
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Field Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Field Technician

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission & Distribution x Corrosion Field Technician

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	20.00%
33	Additional Business Enhancements Impact %	8.33%
34	**Improvement Range %[1] (combined)**	**28.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	15.00%	15.00%	15.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**65.00%**	**40.00%**	**40.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17G
Pacific Gas and Electric Company
ERP and GIS Transformation
Distribution Integrity Management Program (DIMP) Engineers - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Distribution Integrity Management Program (DIMP) Engineers

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough — *A* | *B* | *C* | *D* | *E* | *F* | *G = A+C+E* | *H=B+D+F*

		Direct Time		Management Overhead (OH)		Benefits Overhead (OH)		Total Addressable Spend	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Distribution	$981	$904	$575	$530	$19	$17	$1,575	$1,452
2	**TOTAL**	**$981**	**$904**	**$575**	**$530**	**$19**	**$17**	**$1,575**	**$1,452**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough — *A* | *B* | *C* | *D = A X C* | *E = B X C*

			Spend			Gross Benefits	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Distribution	Direct Time	$981	$904	25.00%	$245	$226
4		Management OH	$575	$530	25.00%	$144	$133
5		Benefits OH	$19	$17	25.00%	$5	$4
6		**Gas Distribution Total**	**$1,575**	**$1,452**	**25.00%**	**$394**	**$363**
7		**TOTAL**	**$1,575**	**$1,452**		**$394**	**$363**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough — *A* | *B* | *C* | *D* | *E = C X D* | *F = A X E* | *G = B X E*

	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Distribution	Direct Time	$245	$226	50.00%	75.00%	37.50%	$92	$85
9		Management OH	$144	$133	25.00%	75.00%	18.75%	$27	$25
10		Benefits OH	$5	$4	25.00%	75.00%	18.75%	$1	$1
11		**Gas Distribution Total**	**$394**	**$363**				**$120**	**$110**
12		**TOTAL**	**$394**	**$363**				**$120**	**$110**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	15
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	4
15	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$28**	**$127**	**$225**	**$230**	**$230**	**$230**	**$230**	**$230**	**$230**	**$230**	**$173**	**$2,164**
19	Capital	$0	$0	$0	$14	$66	$117	$120	$120	$120	$120	$120	$120	$120	$90	$1,126
20	Expense Incl. NEE	$0	$0	$0	$13	$61	$108	$110	$110	$110	$110	$110	$110	$110	$83	$1,038

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$14	$66	$117	$120	$120	$120	$120	$120	$120	$120	$90	$1,126
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$13	$61	$108	$110	$110	$110	$110	$110	$110	$110	$83	$1,038
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$33**	**$155**	**$281**	**$296**	**$304**	**$313**	**$322**	**$331**	**$341**	**$351**	**$271**	**$2,997**
26	Capital benefit, escalated	$0	$0	$0	$16	$77	$138	$144	$147	$150	$153	$156	$159	$162	$124	$1,428
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$16	$78	$142	$151	$157	$163	$169	$175	$182	$189	$147	$1,569
28	Cumulative, escalated	$0	$0	$0	$33	$188	$468	$764	$1,068	$1,380	$1,702	$2,034	$2,375	$2,726	$2,997	

29	Peak Annual Benefit, before escalation	$230	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$351	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	52.47%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17G
Pacific Gas and Electric Company
ERP and GIS Transformation
Distribution Integrity Management Program (DIMP) Engineers - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Distribution Integrity Management Program (DIMP) Engineers

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Distribution x Distribution Integrity Management Program (DIMP) Engineers

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	20.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %[1] (combined)**	**25.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	0.00%	0.00%	0.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**50.00%**	**25.00%**	**25.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17H
Pacific Gas and Electric Company
ERP and GIS Transformation
Distribution Integrity Management Program (DIMP) GIS Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Distribution Integrity Management Program (DIMP) GIS Technician

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Distribution	$741	$683	$427	$394	$8	$7	$1,175	$1,084
2	**TOTAL**	**$741**	**$683**	**$427**	**$394**	**$8**	**$7**	**$1,175**	**$1,084**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Distribution	Direct Time	$741	$683	20.00%	$148	$137
4		Management OH	$427	$394	20.00%	$85	$79
5		Benefits OH	$8	$7	20.00%	$2	$1
6		**Gas Distribution Total**	**$1,175**	**$1,084**	**20.00%**	**$235**	**$217**
7		**TOTAL**	**$1,175**	**$1,084**		**$235**	**$217**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Distribution	Direct Time	$148	$137	50.00%	75.00%	37.50%	$56	$51
9		Management OH	$85	$79	25.00%	75.00%	18.75%	$16	$15
10		Benefits OH	$2	$1	25.00%	75.00%	18.75%	$0	$0
11		**Gas Distribution Total**	**$235**	**$217**				**$72**	**$66**
12		**TOTAL**	**$235**	**$217**				**$72**	**$66**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	9
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	3
15	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$16**	**$74**	**$135**	**$138**	**$138**	**$138**	**$138**	**$138**	**$138**	**$138**	**$104**	**$1,295**
19	Capital	$0	$0	$0	$8	$39	$70	$72	$72	$72	$72	$72	$72	$72	$54	$674
20	Expense Incl. NEE	$0	$0	$0	$7	$36	$65	$66	$66	$66	$66	$66	$66	$66	$50	$621

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$8	$39	$70	$72	$72	$72	$72	$72	$72	$72	$54	$674
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$7	$36	$65	$66	$66	$66	$66	$66	$66	$66	$50	$621
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$18**	**$90**	**$168**	**$177**	**$182**	**$188**	**$193**	**$199**	**$205**	**$211**	**$163**	**$1,793**
26	Capital benefit, escalated	$0	$0	$0	$9	$45	$83	$87	$88	$90	$92	$94	$95	$97	$75	$854
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$9	$45	$85	$91	$94	$98	$101	$105	$109	$113	$88	$939
28	Cumulative, escalated	$0	$0	$0	$18	$108	$277	$454	$636	$824	$1,017	$1,215	$1,420	$1,631	$1,793	

29	Peak Annual Benefit, before escalation	$138	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$211	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	52.47%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17H
Pacific Gas and Electric Company
ERP and GIS Transformation
Distribution Integrity Management Program (DIMP) GIS Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Distribution Integrity Management Program (DIMP) GIS Technician

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Distribution x Distribution Integrity Management Program (DIMP) GIS Technician

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	15.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**20.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	0.00%	0.00%	0.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**50.00%**	**25.00%**	**25.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17I
Pacific Gas and Electric Company
ERP and GIS Transformation
Electric Substation - Asset Strategy - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Electric Substation - Asset Strategy

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission & Distribution	$558	$205	$374	$138	$119	$44	$1,051	$387
2	**TOTAL**	**$558**	**$205**	**$374**	**$138**	**$119**	**$44**	**$1,051**	**$387**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough		*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Electric Transmission & Distribution	Direct Time	$558	$205	20.00%	$112	$41
4		Management OH	$374	$138	20.00%	$75	$28
5		Benefits OH	$119	$44	20.00%	$24	$9
6		**Electric Transmission & Distribution Total**	**$1,051**	**$387**	**20.00%**	**$210**	**$77**
7		**TOTAL**	**$1,051**	**$387**		**$210**	**$77**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Electric Transmission & Distribution	Direct Time	$112	$41	55.00%	75.00%	41.25%	$46	$17
9		Management OH	$75	$28	30.00%	75.00%	22.50%	$17	$6
10		Benefits OH	$24	$9	30.00%	75.00%	22.50%	$5	$2
11		**Electric Transmission & Distribution Total**	**$210**	**$77**				**$68**	**$25**
12		**TOTAL**	**$210**	**$77**				**$68**	**$25**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Electric Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$4
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$4
15	Capital share of benefit					73.10%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$20**	**$74**	**$92**	**$93**	**$93**	**$93**	**$93**	**$93**	**$93**	**$70**	**$817**
19	Capital	$0	$0	$0	$0	$15	$54	$68	$68	$68	$68	$68	$68	$68	$51	$597
20	Expense Incl. NEE	$0	$0	$0	$0	$6	$20	$25	$25	$25	$25	$25	$25	$25	$19	$220

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	Jan 1900	Jan 1900	Jan 1900	Jan 1900	Dec 1940	Sep 2047	Nov 2084	Oct 2086	Oct 2086	Oct 2086	Oct 2086	Oct 2086	Oct 2086	Jan 2040	May 3534
22	Expense benefit incl. NEE, before escalation	Jan 1900	Jan 1900	Jan 1900	Jan 1900	Jan 1915	May 1954	Jan 1968	Sep 1968	Sep 1968	Sep 1968	Sep 1968	Sep 1968	Sep 1968	Jul 1951	Apr 2501
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$24**	**$90**	**$115**	**$119**	**$122**	**$125**	**$129**	**$132**	**$135**	**$104**	**$1,097**
26	Capital benefit, escalated	$0	$0	$0	$0	$17	$64	$81	$84	$85	$87	$89	$91	$92	$71	$761
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$7	$26	$34	$36	$37	$38	$40	$41	$43	$33	$336
28	Cumulative, escalated	$0	$0	$0	$0	$24	$114	$230	$349	$471	$597	$726	$858	$993	$1,097	

29	Peak Annual Benefit, before escalation	$93	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$135	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	45.05%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17I
Pacific Gas and Electric Company
ERP and GIS Transformation
Electric Substation - Asset Strategy - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Electric Substation - Asset Strategy

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission & Distribution x Electric Substation - Asset Strategy

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	10.00%
33	Additional Business Enhancements Impact %	10.00%
34	**Improvement Range %[1] (combined)**	**20.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	5.00%	5.00%	5.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17J
Pacific Gas and Electric Company
ERP and GIS Transformation
Electric Substation - Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Electric Substation - Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission	$13,473	$4,957	$11,305	$4,159	$5,638	$2,074	$30,415	$11,190
2	**TOTAL**	**$13,473**	**$4,957**	**$11,305**	**$4,159**	**$5,638**	**$2,074**	**$30,415**	**$11,190**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Electric Transmission	Direct Time	$13,367	$4,918	20.00%	$2,673	$984
4		Management OH	$11,289	$4,153	20.00%	$2,258	$831
5		Benefits OH	$5,625	$2,069	20.00%	$1,125	$414
6		**Electric Transmission Total**	**$30,281**	**$11,141**	**20.00%**	**$6,056**	**$2,228**
7		**TOTAL**	**$30,281**	**$11,141**		**$6,056**	**$2,228**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Electric Transmission	Direct Time	$2,673	$984	60.00%	75.00%	45.00%	$1,203	$443
9		Management OH	$2,258	$831	35.00%	75.00%	26.25%	$593	$218
10		Benefits OH	$1,125	$414	35.00%	75.00%	26.25%	$295	$109
11		**Electric Transmission Total**	**$6,056**	**$2,228**				**$2,091**	**$769**
12		**TOTAL**	**$6,056**	**$2,228**				**$2,091**	**$769**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Electric Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$119
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$119
15	Capital share of benefit					73.10%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$627**	**$2,262**	**$2,832**	**$2,860**	**$2,860**	**$2,860**	**$2,860**	**$2,860**	**$2,860**	**$2,145**	**$25,028**
19	Capital	$0	$0	$0	$0	$458	$1,654	$2,070	$2,091	$2,091	$2,091	$2,091	$2,091	$2,091	$1,568	$18,297
20	Expense Incl. NEE	$0	$0	$0	$0	$169	$608	$762	$769	$769	$769	$769	$769	$769	$577	$6,731

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$0	$458	$1,654	$2,070	$2,091	$2,091	$2,091	$2,091	$2,091	$2,091	$1,568	$18,297
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$169	$608	$762	$769	$769	$769	$769	$769	$769	$577	$6,731
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$747**	**$2,758**	**$3,535**	**$3,659**	**$3,751**	**$3,846**	**$3,945**	**$4,045**	**$4,149**	**$3,192**	**$33,627**
26	Capital benefit, escalated	$0	$0	$0	$0	$532	$1,955	$2,492	$2,566	$2,617	$2,670	$2,724	$2,779	$2,835	$2,169	$23,340
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$215	$803	$1,043	$1,093	$1,134	$1,177	$1,221	$1,266	$1,314	$1,022	$10,287
28	Cumulative, escalated	$0	$0	$0	$0	$747	$3,505	$7,040	$10,699	$14,450	$18,297	$22,241	$26,287	$30,436	$33,627	
29	Peak Annual Benefit, before escalation	$2,860	The highest year of the before-escalation Capital + Expense rows above.													
30	Peak Annual Benefit, Escalated	$4,149	The highest year on the Escalated Annual Benefit row above.													
31	Uplift on the highest year	45.05%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17J
Pacific Gas and Electric Company
ERP and GIS Transformation
Electric Substation - Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Electric Substation - Engineer

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission x Electric Substation - Engineer

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	10.00%
33	Additional Business Enhancements Impact %	10.00%
34	**Improvement Range %' (combined)**	**20.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	5.00%	5.00%	5.00%
38	Value Lever Adjustment	5.00%	5.00%	5.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17K
Pacific Gas and Electric Company
ERP and GIS Transformation
Electric Substation - Project Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Electric Substation - Project Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission	$3,786	$1,393	$3,310	$1,218	$1,774	$653	$8,870	$3,263
2	**TOTAL**	**$3,786**	**$1,393**	**$3,310**	**$1,218**	**$1,774**	**$653**	**$8,870**	**$3,263**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Electric Transmission	Direct Time	$3,726	$1,371	25.00%	$932	$343
4		Management OH	$3,310	$1,218	25.00%	$828	$304
5		Benefits OH	$1,756	$646	25.00%	$439	$162
6		**Electric Transmission Total**	**$8,793**	**$3,235**	**25.00%**	**$2,198**	**$809**
7		**TOTAL**	**$8,793**	**$3,235**		**$2,198**	**$809**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Electric Transmission	Direct Time	$932	$343	60.00%	75.00%	45.00%	$419	$154
9		Management OH	$828	$304	35.00%	75.00%	26.25%	$217	$80
10		Benefits OH	$439	$162	35.00%	75.00%	26.25%	$115	$42
11		**Electric Transmission Total**	**$2,198**	**$809**				**$752**	**$277**
12		**TOTAL**	**$2,198**	**$809**				**$752**	**$277**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Electric Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$51
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$34
15	Capital share of benefit					73.10%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$211**	**$778**	**$1,016**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$1,028**	**$771**	**$8,946**
19	Capital	$0	$0	$0	$0	$154	$569	$743	$752	$752	$752	$752	$752	$752	$564	$6,540
20	Expense Incl. NEE	$0	$0	$0	$0	$57	$209	$273	$277	$277	$277	$277	$277	$277	$207	$2,406

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$0	$154	$569	$743	$752	$752	$752	$752	$752	$752	$564	$6,540
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$57	$209	$273	$277	$277	$277	$277	$277	$277	$207	$2,406
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$252**	**$949**	**$1,268**	**$1,315**	**$1,349**	**$1,383**	**$1,418**	**$1,454**	**$1,491**	**$1,147**	**$12,026**
26	Capital benefit, escalated	$0	$0	$0	$0	$179	$672	$894	$922	$941	$960	$979	$999	$1,019	$780	$8,346
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$72	$276	$374	$393	$408	$423	$439	$455	$472	$368	$3,680
28	Cumulative, escalated	$0	$0	$0	$0	$252	$1,200	$2,468	$3,784	$5,132	$6,515	$7,933	$9,387	$10,879	$12,026	
29	Peak Annual Benefit, before escalation	$1,028	The highest year of the before-escalation Capital + Expense rows above.													
30	Peak Annual Benefit, Escalated	$1,491	The highest year on the Escalated Annual Benefit row above.													
31	Uplift on the highest year	45.05%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17K
Pacific Gas and Electric Company
ERP and GIS Transformation
Electric Substation - Project Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Electric Substation - Project Engineer

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission x Electric Substation - Project Engineer

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	15.00%
33	Additional Business Enhancements Impact %	10.00%
34	**Improvement Range %' (combined)**	**25.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	5.00%	5.00%	5.00%
38	Value Lever Adjustment	5.00%	5.00%	5.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17L
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough

		A	B	C	D	E	F	G = A+C+E	H=B+D+F
		Direct Time		Management Overhead (OH)		Benefits Overhead (OH)		Total Addressable Spend	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$2,628	$967	$1,339	$493	$186	$68	$4,153	$1,528
2	Electric Transmission	$10,220	$3,760	$7,365	$2,709	$2,575	$947	$20,159	$7,417
3	Electric Transmission & Distribution	$29,062	$54,178	$20,130	$37,479	$4,313	$8,016	$53,505	$99,672
4	Power Generation	$1,205	$2,052	$340	$579	$471	$803	$2,016	$3,433
5	**TOTAL**	**$43,114**	**$60,956**	**$29,173**	**$41,259**	**$7,545**	**$9,834**	**$79,833**	**$112,050**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough

			A	B	C	D = A X C	E = B X C
			Spend			Gross Benefits	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
6	Electric Distribution	Direct Time	$2,628	$967	16.67%	$438	$161
7		Management OH	$1,339	$493	16.67%	$223	$82
8		Benefits OH	$186	$68	16.67%	$31	$11
9		**Electric Distribution Total**	**$4,153**	**$1,528**	**16.67%**	**$692**	**$255**
10	Electric Transmission	Direct Time	$10,197	$3,752	18.33%	$1,869	$688
11		Management OH	$7,365	$2,709	18.33%	$1,350	$497
12		Benefits OH	$2,568	$945	18.33%	$471	$173
13		**Electric Transmission Total**	**$20,130**	**$7,406**	**18.33%**	**$3,691**	**$1,358**
14	Electric Transmission & Distribution	Direct Time	$29,053	$54,162	18.33%	$5,326	$9,930
15		Management OH	$20,130	$37,477	18.33%	$3,690	$6,871
16		Benefits OH	$4,313	$8,016	0	$791	$1,470
17		**Electric Transmission & Distribution Total**	**$53,496**	**$99,655**	**0**	**$9,808**	**$18,270**
18	Power Generation	Direct Time	$1,205	$2,052	0	$120	$205
19		Management OH	$340	$579	0	$34	$58
20		Benefits OH	$471	$803	0	$47	$80
21		**Power Generation Total**	**$2,016**	**$3,433**	**0**	**$202**	**$343**
22		**TOTAL**	**$79,794**	**$112,022**		**$14,392**	**$20,226**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer.
The factor is the Realization Rate multiplied by Exclusivity

Formula Walkthrough

			A	B	C	D	E = C X D	F = A X E	G = B X E
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
23	Electric Distribution	Direct Time	$438	$161	55.00%	75.00%	41.25%	$181	$66
24		Management OH	$223	$82	30.00%	75.00%	22.50%	$50	$18
25		Benefits OH	$31	$11	30.00%	75.00%	22.50%	$7	$3
26		**Electric Distribution Total**	**$692**	**$255**				**$238**	**$88**
27	Electric Transmission	Direct Time	$1,869	$688	60.00%	75.00%	45.00%	$841	$310
28		Management OH	$1,350	$497	35.00%	75.00%	26.25%	$354	$130
29		Benefits OH	$471	$173	35.00%	75.00%	26.25%	$124	$45
30		**Electric Transmission Total**	**$3,691**	**$1,358**				**$1,319**	**$485**
31	Electric Transmission & Distribution	Direct Time	$5,326	$9,930	55.00%	75.00%	41.25%	$2,197	$4,096
32		Management OH	$3,690	$6,871	30.00%	75.00%	22.50%	$830	$1,546
33		Benefits OH	$791	$1,470	30.00%	75.00%	22.50%	$178	$331
34		**Electric Transmission & Distribution Total**	**$9,808**	**$18,270**				**$3,205**	**$5,973**
35	Power Generation	Direct Time	$120	$205	0.00%	75.00%	0.00%	$0	$0
36		Management OH	$34	$58	0.00%	75.00%	0.00%	$0	$0
37		Benefits OH	$47	$80	0.00%	75.00%	0.00%	$0	$0
38		**Power Generation Total**	**$202**	**$343**				**$0**	**$0**
39		**TOTAL**	**$14,392**	**$20,226**				**$4,763**	**$6,545**

Workpaper 3-17L
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Distribution

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-confidence)
40	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	16
41	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	11
42	Capital share of benefit					73.10%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
43	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
44	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
45	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$67**	**$246**	**$321**	**$325**	**$325**	**$325**	**$325**	**$325**	**$325**	**$244**	**$2,831**
46	Capital	$0	$0	$0	$0	$49	$180	$235	$238	$238	$238	$238	$238	$238	$178	$2,069
47	Expense Incl. NEE	$0	$0	$0	$0	$18	$66	$86	$88	$88	$88	$88	$88	$88	$66	$761

Electric Transmission

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-confidence)
48	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	82
49	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	68
50	Capital share of benefit					73.10%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
51	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
52	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
53	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$384**	**$1,399**	**$1,785**	**$1,805**	**$1,805**	**$1,805**	**$1,805**	**$1,805**	**$1,805**	**$1,353**	**$15,750**
54	Capital	$0	$0	$0	$0	$281	$1,023	$1,305	$1,319	$1,319	$1,319	$1,319	$1,319	$1,319	$989	$11,514
55	Expense Incl. NEE	$0	$0	$0	$0	$103	$376	$480	$485	$485	$485	$485	$485	$485	$364	$4,236

Electric Transmission & Distribution

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-confidence)
56	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	417
57	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	348
58	Capital share of benefit					34.92%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
59	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
60	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
61	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$1,954**	**$7,115**	**$9,078**	**$9,178**	**$9,178**	**$9,178**	**$9,178**	**$9,178**	**$9,178**	**$6,883**	**$80,099**
62	Capital	$0	$0	$0	$0	$683	$2,485	$3,170	$3,205	$3,205	$3,205	$3,205	$3,205	$3,205	$2,404	$27,974
63	Expense Incl. NEE	$0	$0	$0	$0	$1,272	$4,630	$5,907	$5,973	$5,973	$5,973	$5,973	$5,973	$5,973	$4,479	$52,124

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
64	Capital benefit, before escalation	$0	$0	$0	$0	$1,012	$3,688	$4,710	$4,763	$4,763	$4,763	$4,763	$4,763	$4,763	$3,572	$41,557
65	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$1,393	$5,073	$6,474	$6,545	$6,545	$6,545	$6,545	$6,545	$6,545	$4,909	$57,122
66	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
67	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
68	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$2,948**	**$11,055**	**$14,537**	**$15,144**	**$15,610**	**$16,091**	**$16,589**	**$17,104**	**$17,636**	**$13,639**	**$140,354**
69	Capital benefit, escalated	$0	$0	$0	$0	$1,176	$4,359	$5,671	$5,844	$5,961	$6,081	$6,204	$6,329	$6,457	$4,941	$53,023
70	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$1,772	$6,696	$8,866	$9,300	$9,648	$10,010	$10,386	$10,775	$11,179	$8,699	$87,331
71	Cumulative, escalated	$0	$0	$0	$0	$2,948	$14,003	$28,540	$43,684	$59,294	$75,385	$91,974	$109,079	$126,715	$140,354	
72	Peak Annual Benefit, before escalation	11,308	The highest year of the before-escalation Capital + Expense rows above.													
73	Peak Annual Benefit, Escalated	17,636	The highest year on the Escalated Annual Benefit row above.													
74	Uplift on the highest year	55.96%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17L
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Distribution x Engineer

A. BENEFIT PERCENTAGES

		Benefit %
75	Core Enhancements Improvement %	10.00%
76	Additional Business Enhancements Impact %	6.67%
77	**Improvement Range %' (combined)**	**16.67%**

B. CONFIDENCE FACTORS

		Direct Time	Mamt OH	Benefits OH
78	Phase 0 Confidence	50.00%		
79	ED O&M / Medical Confidence		25.00%	25.00%
80	Value Validation Adjustment	10.00%	10.00%	10.00%
81	Value Lever Adjustment	-5.00%	-5.00%	-5.00%
82	ERP Persona Adjustment	0.00%	0.00%	0.00%
83	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
84	Exclusivity %	75.00%

Assumptions & Reference Rates - Electric Transmission x Engineer

A. BENEFIT PERCENTAGES

		Benefit %
85	Core Enhancements Improvement %	10.00%
86	Additional Business Enhancements Impact %	8.33%
87	**Improvement Range %' (combined)**	**18.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mamt OH	Benefits OH
88	Phase 0 Confidence	50.00%		
89	ED O&M / Medical Confidence		25.00%	25.00%
90	Value Validation Adjustment	5.00%	5.00%	5.00%
91	Value Lever Adjustment	5.00%	5.00%	5.00%
92	ERP Persona Adjustment	0.00%	0.00%	0.00%
93	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
94	Exclusivity %	75.00%

Workpaper 3-17L
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

Assumptions & Reference Rates - Electric Transmission & Distribution x Engineer

A. BENEFIT PERCENTAGES

		Benefit %
95	Core Enhancements Improvement %	10.00%
96	Additional Business Enhancements Impact %	8.33%
97	**Improvement Range %' (combined)**	**18.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
98	Phase 0 Confidence	50.00%		
99	ED O&M / Medical Confidence		25.00%	25.00%
100	Value Validation Adjustment	5.00%	5.00%	5.00%
101	Value Lever Adjustment	0.00%	0.00%	0.00%
102	ERP Persona Adjustment	0.00%	0.00%	0.00%
103	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
104	Exclusivity %	75.00%

Assumptions & Reference Rates - Power Generation x Engineer

A. BENEFIT PERCENTAGES

		Benefit %
105	Core Enhancements Improvement %	10.00%
106	Additional Business Enhancements Impact %	0.00%
107	**Improvement Range %' (combined)**	**10.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
108	Phase 0 Confidence	50.00%		
109	ED O&M / Medical Confidence		25.00%	25.00%
110	Value Validation Adjustment	0.00%	0.00%	0.00%
111	Value Lever Adjustment	-50.00%	-50.00%	-50.00%
112	ERP Persona Adjustment	0.00%	0.00%	0.00%
113	**Total Realization Rate**	**0.00%**	**0.00%**	**0.00%**

C. EXCLUSIVITY %

		Exclusivity %
114	Exclusivity %	75.00%

GLOSSARY

115	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
116	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
117	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
118	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
119	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
120	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
121	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
122	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
123	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
124	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17M
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Estimator

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission & Distribution	$12,778	$8,020	$10,343	$6,492	$5,938	$3,727	$29,059	$18,239
2	Gas Transmission & Distribution	$3,356	$3,195	$3,308	$3,149	$1,434	$1,365	$8,098	$7,710
3	**TOTAL**	**$16,134**	**$11,216**	**$13,651**	**$9,641**	**$7,372**	**$5,092**	**$37,157**	**$25,949**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough			*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
4	Electric Transmission & Distribution	Direct Time	$12,777	$8,020	13.33%	$1,704	$1,069
5		Management OH	$10,343	$6,492	13.33%	$1,379	$866
6		Benefits OH	$5,937	$3,727	13.33%	$792	$497
7		**Electric Transmission & Distribution Total**	**$29,058**	**$18,238**	**13.33%**	**$3,874**	**$2,432**
8	Gas Transmission & Distribution	Direct Time	$3,356	$3,195	13.33%	$448	$426
9		Management OH	$3,308	$3,149	13.33%	$441	$420
10		Benefits OH	$1,434	$1,365	13.33%	$191	$182
11		**Gas Transmission & Distribution Total**	**$8,098**	**$7,710**	**13.33%**	**$1,080**	**$1,028**
12		**TOTAL**	**$37,156**	**$25,948**		**$4,954**	**$3,460**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 49). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough			*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
13	Electric Transmission & Distribution	Direct Time	$1,704	$1,069	55.00%	75.00%	41.25%	$703	$441
14		Management OH	$1,379	$866	30.00%	75.00%	22.50%	$310	$195
15		Benefits OH	$792	$497	30.00%	75.00%	22.50%	$178	$112
16		**Electric Transmission & Distribution Total**	**$3,874**	**$2,432**				**$1,191**	**$748**
17	Gas Transmission & Distribution	Direct Time	$448	$426	55.00%	75.00%	41.25%	$185	$176
18		Management OH	$441	$420	30.00%	75.00%	22.50%	$99	$94
19		Benefits OH	$191	$182	30.00%	75.00%	22.50%	$43	$41
20		**Gas Transmission & Distribution Total**	**$1,080**	**$1,028**				**$327**	**$311**
21		**TOTAL**	**$4,954**	**$3,460**				**$1,518**	**$1,059**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
22	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$61
23	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$101
24	Capital share of benefit					61.44%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
25	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
26	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
27	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$459**	**$1,616**	**$1,924**	**$1,939**	**$1,939**	**$1,939**	**$1,939**	**$1,939**	**$1,939**	**$1,454**	**$17,086**
28	Capital	$0	$0	$0	$0	$282	$993	$1,182	$1,191	$1,191	$1,191	$1,191	$1,191	$1,191	$893	$10,497
29	Expense Incl. NEE	$0	$0	$0	$0	$177	$623	$742	$748	$748	$748	$748	$748	$748	$561	$6,589

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
30	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	20
31	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	33
32	Capital share of benefit					51.23%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
33	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
34	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
35	**Annual Benefit**	**$0**	**$0**	**$0**	**$36**	**$263**	**$618**	**$638**	**$638**	**$638**	**$638**	**$638**	**$638**	**$638**	**$479**	**$5,862**
36	Capital	$0	$0	$0	$18	$135	$317	$327	$327	$327	$327	$327	$327	$327	$245	$3,003
37	Expense Incl. NEE	$0	$0	$0	$18	$128	$301	$311	$311	$311	$311	$311	$311	$311	$233	$2,859

Workpaper 3-17M
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Estimator

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
38	Capital benefit, before escalation	$0	$0	$0	$18	$417	$1,309	$1,509	$1,518	$1,518	$1,518	$1,518	$1,518	$1,518	$1,138	$13,500
39	Expense benefit incl. NEE, before escalation	$0	$0	$0	$18	$305	$924	$1,053	$1,059	$1,059	$1,059	$1,059	$1,059	$1,059	$794	$9,447
40	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
41	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
42	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$42**	**$872**	**$2,768**	**$3,259**	**$3,367**	**$3,461**	**$3,558**	**$3,657**	**$3,760**	**$3,866**	**$2,982**	**$31,594**
43	Capital benefit, escalated	$0	$0	$0	$21	$484	$1,548	$1,817	$1,863	$1,900	$1,938	$1,977	$2,017	$2,058	$1,575	$17,198
44	Expense benefit incl. NEE, escalated	$0	$0	$0	$21	$388	$1,220	$1,442	$1,504	$1,561	$1,619	$1,680	$1,743	$1,808	$1,407	$14,395
45	Cumulative, escalated	$0	$0	$0	$42	$915	$3,683	$6,942	$10,309	$13,770	$17,327	$20,985	$24,745	$28,612	$31,594	
46	Peak Annual Benefit, before escalation	$2,577	The highest year of the before-escalation Capital + Expense rows above.													
47	Peak Annual Benefit, Escalated	$3,866	The highest year on the Escalated Annual Benefit row above.													
48	Uplift on the highest year	50.05%	The % increase of peak annual benefit due to escalation.													

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission & Distribution x Estimator

A. BENEFIT PERCENTAGES

		Benefit %
49	Core Enhancements Improvement %	5.00%
50	Additional Business Enhancements Impact %	8.33%
51	**Improvement Range %[1] (combined)**	**13.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
52	Phase 0 Confidence	50.00%		
53	ED O&M / Medical Confidence		25.00%	25.00%
54	Value Validation Adjustment	5.00%	5.00%	5.00%
55	Value Lever Adjustment	0.00%	0.00%	0.00%
56	ERP Persona Adjustment	0.00%	0.00%	0.00%
57	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
58	Exclusivity %	75.00%

Assumptions & Reference Rates - Gas Transmission & Distribution x Estimator

A. BENEFIT PERCENTAGES

		Benefit %
59	Core Enhancements Improvement %	5.00%
60	Additional Business Enhancements Impact %	8.33%
61	**Improvement Range %[1] (combined)**	**13.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
62	Phase 0 Confidence	50.00%		
63	ED O&M / Medical Confidence		25.00%	25.00%
64	Value Validation Adjustment	5.00%	5.00%	5.00%
65	Value Lever Adjustment	0.00%	0.00%	0.00%
66	ERP Persona Adjustment	0.00%	0.00%	0.00%
67	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
68	Exclusivity %	75.00%

GLOSSARY

69	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
70	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
71	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
72	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
73	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
74	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
75	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
76	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
77	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
78	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17N
Pacific Gas and Electric Company
ERP and GIS Transformation
FIMP Engineers & Technicians - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	FIMP Engineers & Technicians

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission & Distribution	$334	$308	$191	$176	$0	$0	$524	$484
2	**TOTAL**	**$334**	**$308**	**$191**	**$176**	**$0**	**$0**	**$524**	**$484**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough			*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission & Distribution	Direct Time	$334	$308	35.00%	$117	$108
4		Management OH	$191	$176	35.00%	$67	$61
5		Benefits OH	$0	$0	35.00%	$0	$0
6		**Gas Transmission & Distribution Total**	**$524**	**$484**	**35.00%**	**$184**	**$169**
7		**TOTAL**	**$524**	**$484**		**$184**	**$169**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough			*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission & Distribution	Direct Time	$117	$108	60.00%	75.00%	45.00%	$53	$48
9		Management OH	$67	$61	35.00%	75.00%	26.25%	$18	$16
10		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
11		**Gas Transmission & Distribution Total**	**$184**	**$169**				**$70**	**$65**
12		**TOTAL**	**$184**	**$169**				**$70**	**$65**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	$10
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$2
15	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$17**	**$77**	**$132**	**$135**	**$135**	**$135**	**$135**	**$135**	**$135**	**$135**	**$101**	**$1,270**
19	Capital	$0	$0	$0	$9	$40	$69	$70	$70	$70	$70	$70	$70	$70	$53	$661
20	Expense Incl. NEE	$0	$0	$0	$8	$37	$63	$65	$65	$65	$65	$65	$65	$65	$48	$609

Workpaper 3-17N
Pacific Gas and Electric Company
ERP and GIS Transformation
FIMP Engineers & Technicians - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	FIMP Engineers & Technicians

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
21	Capital benefit, before escalation	$0	$0	$0	$9	$40	$69	$70	$70	$70	$70	$70	$70	$70	$53	$661
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$8	$37	$63	$65	$65	$65	$65	$65	$65	$65	$48	$609
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$20**	**$94**	**$164**	**$173**	**$178**	**$183**	**$188**	**$194**	**$200**	**$205**	**$159**	**$1,758**
26	Capital benefit, escalated	$0	$0	$0	$10	$47	$81	$84	$86	$88	$90	$91	$93	$95	$73	$838
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$10	$47	$83	$89	$92	$95	$99	$103	$106	$110	$86	$920
28	Cumulative, escalated	$0	$0	$0	$20	$114	$279	$451	$629	$812	$1,001	$1,194	$1,394	$1,599	$1,758	
29	Peak Annual Benefit, before escalation	$135	The highest year of the before-escalation Capital + Expense rows above.													
30	Peak Annual Benefit, Escalated	$205	The highest year on the Escalated Annual Benefit row above.													
31	Uplift on the highest year	52.47%	The % increase of peak annual benefit due to escalation.													

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission & Distribution x FIMP Engineers & Technicians

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	30.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**35.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	10.00%	10.00%	10.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17O
Pacific Gas and Electric Company
ERP and GIS Transformation
Field Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Field Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Transmission & Distribution	$4,684	$3,660	$4,210	$3,290	$2,105	$1,645	$11,000	$8,595
2	Gas Transmission & Distribution	$8,041	$8,336	$8,047	$8,330	$3,180	$3,273	$19,268	$19,939
3	**TOTAL**	**$12,725**	**$11,997**	**$12,257**	**$11,619**	**$5,285**	**$4,918**	**$30,267**	**$28,534**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
4	Electric Transmission & Distribution	Direct Time	$4,684	$3,660	15.00%	$703	$549
5		Management OH	$4,210	$3,290	15.00%	$632	$493
6		Benefits OH	$2,105	$1,645	15.00%	$316	$247
7		**Electric Transmission & Distribution Total**	**$11,000**	**$8,595**	**15.00%**	**$1,650**	**$1,289**
8	Gas Transmission & Distribution	Direct Time	$0	$0	0.00%	$0	$0
9		Management OH	$0	$0	0.00%	$0	$0
10		Benefits OH	$0	$0	0.00%	$0	$0
11		**Gas Transmission & Distribution Total**	**$0**	**$0**	**0.00%**	**$0**	**$0**
12		**TOTAL**	**$11,000**	**$8,595**		**$1,650**	**$1,289**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 39). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
13	Electric Transmission & Distribution	Direct Time	$703	$549	60.00%	75.00%	45.00%	$316	$247
14		Management OH	$632	$493	35.00%	75.00%	26.25%	$166	$130
15		Benefits OH	$316	$247	35.00%	75.00%	26.25%	$83	$65
16		**Electric Transmission & Distribution Total**	**$1,650**	**$1,289**				**$565**	**$441**
17	Gas Transmission & Distribution	Direct Time	$0	$0	60.00%	75.00%	45.00%	$0	$0
18		Management OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
19		Benefits OH	$0	$0	35.00%	75.00%	26.25%	$0	$0
20		**Gas Transmission & Distribution Total**	**$0**	**$0**				**$0**	**$0**
21		**TOTAL**	**$1,650**	**$1,289**				**$565**	**$441**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
22	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$84
23	Capital share of benefit					56.14%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
24	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
25	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$290**	**$968**	**$1,006**	**$1,006**	**$1,006**	**$1,006**	**$1,006**	**$1,006**	**$1,006**	**$755**	**$9,056**
26	Capital	$0	$0	$0	$0	$163	$543	$565	$565	$565	$565	$565	$565	$565	$424	$5,084
27	Expense Incl. NEE	$0	$0	$0	$0	$127	$424	$441	$441	$441	$441	$441	$441	$441	$331	$3,972

Workpaper 3-17O
Pacific Gas and Electric Company
ERP and GIS Transformation
Field Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Field Engineer

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
28	Capital benefit, before escalation	$0	$0	$0	$0	$163	$543	$565	$565	$565	$565	$565	$565	$565	$424	$5,084
29	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$127	$424	$441	$441	$441	$441	$441	$441	$441	$331	$3,972
30	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
31	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
32	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$351**	**$1,202**	**$1,285**	**$1,320**	**$1,358**	**$1,396**	**$1,436**	**$1,477**	**$1,520**	**$1,173**	**$12,518**
33	Capital benefit, escalated	$0	$0	$0	$0	$189	$642	$680	$693	$707	$721	$736	$751	$766	$586	$6,471
34	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$162	$560	$604	$627	$651	$675	$700	$727	$754	$587	$6,047
35	Cumulative, escalated	$0	$0	$0	$0	$351	$1,553	$2,838	$4,158	$5,516	$6,912	$8,348	$9,826	$11,345	$12,518	

36	Peak Annual Benefit, before escalation	1,006	The highest year of the before-escalation Capital + Expense rows above.
37	Peak Annual Benefit, Escalated	1,520	The highest year on the Escalated Annual Benefit row above.
38	Uplift on the highest year	51.03%	The % increase of peak annual benefit due to escalation.

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Transmission & Distribution x Field Engineer

A. BENEFIT PERCENTAGES

		Benefit %
39	Core Enhancements Improvement %	0.00%
40	Additional Business Enhancements Impact %	15.00%
41	**Improvement Range %' (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
42	Phase 0 Confidence	50.00%		
43	ED O&M / Medical Confidence		25.00%	25.00%
44	Value Validation Adjustment	5.00%	5.00%	5.00%
45	Value Lever Adjustment	0.00%	0.00%	0.00%
46	ERP Persona Adjustment	5.00%	5.00%	5.00%
47	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
48	Exclusivity %	75.00%

Assumptions & Reference Rates - Gas Transmission & Distribution x Field Engineer

A. BENEFIT PERCENTAGES

		Benefit %
49	Core Enhancements Improvement %	0.00%
50	Additional Business Enhancements Impact %	0.00%
51	**Improvement Range %' (combined)**	**0.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
52	Phase 0 Confidence	50.00%		
53	ED O&M / Medical Confidence		25.00%	25.00%
54	Value Validation Adjustment	10.00%	10.00%	10.00%
55	Value Lever Adjustment	0.00%	0.00%	0.00%
56	ERP Persona Adjustment	0.00%	0.00%	0.00%
57	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
58	Exclusivity %	75.00%

GLOSSARY

59	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
60	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
61	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
62	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
63	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
64	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
65	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
66	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
67	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
68	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17P
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Distribution Engineering & Design (GDED) Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Distribution Engineering & Design (GDED) Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Distribution	$5,260	$5,122	$3,991	$3,886	$1,026	$999	$10,278	$10,008
2	**TOTAL**	**$5,260**	**$5,122**	**$3,991**	**$3,886**	**$1,026**	**$999**	**$10,278**	**$10,008**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend		**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Distribution	Direct Time	$5,260	$5,122	25.00%	$1,315	$1,281
4		Management OH	$3,991	$3,886	25.00%	$998	$971
5		Benefits OH	$1,026	$999	25.00%	$257	$250
6		**Gas Distribution Total**	**$10,278**	**$10,008**	**25.00%**	**$2,569**	**$2,502**
7		**TOTAL**	**$10,278**	**$10,008**		**$2,569**	**$2,502**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Distribution	Direct Time	$1,315	$1,281	60.00%	75.00%	45.00%	$592	$576
9		Management OH	$998	$971	35.00%	75.00%	26.25%	$262	$255
10		Benefits OH	$257	$250	35.00%	75.00%	26.25%	$67	$66
11		**Gas Distribution Total**	**$2,569**	**$2,502**				**$921**	**$897**
12		**TOTAL**	**$2,569**	**$2,502**				**$921**	**$897**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	$121
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$30
15	Capital share of benefit					50.66%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$218**	**$1,007**	**$1,775**	**$1,818**	**$1,818**	**$1,818**	**$1,818**	**$1,818**	**$1,818**	**$1,818**	**$1,363**	**$17,089**
19	Capital	$0	$0	$0	$111	$510	$899	$921	$921	$921	$921	$921	$921	$921	$691	$8,658
20	Expense Incl. NEE	$0	$0	$0	$108	$497	$876	$897	$897	$897	$897	$897	$897	$897	$673	$8,431

Workpaper 3-17P
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Distribution Engineering & Design (GDED) Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Distribution Engineering & Design (GDED) Engineer

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
21	Capital benefit, before escalation	$0	$0	$0	$111	$510	$899	$921	$921	$921	$921	$921	$921	$921	$691	$8,658
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$108	$497	$876	$897	$897	$897	$897	$897	$897	$897	$673	$8,431
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$258**	**$1,224**	**$2,219**	**$2,337**	**$2,405**	**$2,475**	**$2,548**	**$2,623**	**$2,700**	**$2,781**	**$2,147**	**$23,717**
26	Capital benefit, escalated	$0	$0	$0	$126	$592	$1,063	$1,109	$1,130	$1,153	$1,176	$1,200	$1,224	$1,249	$955	$10,978
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$132	$632	$1,156	$1,228	$1,274	$1,322	$1,372	$1,423	$1,476	$1,532	$1,192	$12,739
28	Cumulative, escalated	$0	$0	$0	$258	$1,482	$3,701	$6,038	$8,443	$10,918	$13,465	$16,088	$18,789	$21,569	$23,717	
29	Peak Annual Benefit, before escalation	1,818	The highest year of the before-escalation Capital + Expense rows above.													
30	Peak Annual Benefit, Escalated	2,781	The highest year on the Escalated Annual Benefit row above.													
31	Uplift on the highest year	52.95%	The % increase of peak annual benefit due to escalation.													

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Distribution x Gas Distribution Engineering & Design (GDED) Engineer

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	20.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**25.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	10.00%	10.00%	10.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17Q
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Project & Outage Management (GPOM) - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Project & Outage Management (GPOM)

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission & Distribution	$3,664	$4,719	$2,689	$3,463	$541	$697	$6,894	$8,879
2	**TOTAL**	**$3,664**	**$4,719**	**$2,689**	**$3,463**	**$541**	**$697**	**$6,894**	**$8,879**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission & Distribution	Direct Time	$3,664	$4,719	5.00%	$183	$236
4		Management OH	$2,689	$3,463	5.00%	$134	$173
5		Benefits OH	$541	$697	5.00%	$27	$35
6		**Gas Transmission & Distribution Total**	**$6,894**	**$8,879**	**5.00%**	**$345**	**$444**
7		**TOTAL**	**$6,894**	**$8,879**		**$345**	**$444**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission & Distribution	Direct Time	$183	$236	60.00%	75.00%	45.00%	$82	$106
9		Management OH	$134	$173	35.00%	75.00%	26.25%	$35	$45
10		Benefits OH	$27	$35	35.00%	75.00%	26.25%	$7	$9
11		**Gas Transmission & Distribution Total**	**$345**	**$444**				**$125**	**$161**
12		**TOTAL**	**$345**	**$444**				**$125**	**$161**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission & Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$24
14	Capital share of benefit					43.71%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
16	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$82**	**$275**	**$286**	**$286**	**$286**	**$286**	**$286**	**$286**	**$286**	**$214**	**$2,571**
17	Capital	$0	$0	$0	$0	$36	$120	$125	$125	$125	$125	$125	$125	$125	$94	$1,124
18	Expense Incl. NEE	$0	$0	$0	$0	$46	$155	$161	$161	$161	$161	$161	$161	$161	$121	$1,447

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$36	$120	$125	$125	$125	$125	$125	$125	$125	$94	$1,124
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$46	$155	$161	$161	$161	$161	$161	$161	$161	$121	$1,447
21	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$101**	**$346**	**$370**	**$382**	**$393**	**$405**	**$418**	**$431**	**$444**	**$343**	**$3,633**
24	Capital benefit, escalated	$0	$0	$0	$0	$42	$142	$150	$153	$156	$159	$163	$166	$169	$130	$1,430
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$59	$204	$220	$228	$237	$246	$255	$265	$275	$214	$2,203
26	Cumulative, escalated	$0	$0	$0	$0	$101	$447	$817	$1,199	$1,592	$1,997	$2,415	$2,846	$3,290	$3,633	
27	Peak Annual Benefit, before escalation	$286	The highest year of the before-escalation Capital + Expense rows above.													
28	Peak Annual Benefit, Escalated	$444	The highest year on the Escalated Annual Benefit row above.													
29	Uplift on the highest year	55.40%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17Q
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Project & Outage Management (GPOM) - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Project & Outage Management (GPOM)

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission & Distribution x Gas Project & Outage Management (GPOM)

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	0.00%
31	Additional Business Enhancements Impact %	5.00%
32	**Improvement Range %' (combined)**	**5.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	10.00%	10.00%	10.00%
36	Value Lever Adjustment	0.00%	0.00%	0.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17R
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Transmission Engineering & Design (GTED) Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Transmission Engineering & Design (GTED) Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission	$7,350	$6,950	$6,837	$6,465	$2,521	$2,384	$16,708	$15,799
2	**TOTAL**	**$7,350**	**$6,950**	**$6,837**	**$6,465**	**$2,521**	**$2,384**	**$16,708**	**$15,799**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission	Direct Time	$7,350	$6,950	25.00%	$1,837	$1,738
4		Management OH	$6,837	$6,465	25.00%	$1,709	$1,616
5		Benefits OH	$2,521	$2,384	25.00%	$630	$596
6		**Gas Transmission Total**	**$16,708**	**$15,799**	**25.00%**	**$4,177**	**$3,950**
7		**TOTAL**	**$16,708**	**$15,799**		**$4,177**	**$3,950**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission	Direct Time	$1,837	$1,738	55.00%	75.00%	41.25%	$758	$717
9		Management OH	$1,709	$1,616	30.00%	75.00%	22.50%	$385	$364
10		Benefits OH	$630	$596	30.00%	75.00%	22.50%	$142	$134
11		**Gas Transmission Total**	**$4,177**	**$3,950**				**$1,284**	**$1,214**
12		**TOTAL**	**$4,177**	**$3,950**				**$1,284**	**$1,214**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	$167
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$42
15	Capital share of benefit					51.40%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$300**	**$1,384**	**$2,440**	**$2,499**	**$2,499**	**$2,499**	**$2,499**	**$2,499**	**$2,499**	**$2,499**	**$1,874**	**$23,499**
19	Capital	$0	$0	$0	$154	$711	$1,254	$1,284	$1,284	$1,284	$1,284	$1,284	$1,284	$1,284	$963	$12,073
20	Expense Incl. NEE	$0	$0	$0	$146	$672	$1,186	$1,214	$1,214	$1,214	$1,214	$1,214	$1,214	$1,214	$911	$11,416

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$154	$711	$1,254	$1,284	$1,284	$1,284	$1,284	$1,284	$1,284	$1,284	$963	$12,073
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$146	$672	$1,186	$1,214	$1,214	$1,214	$1,214	$1,214	$1,214	$1,214	$911	$11,416
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$355**	**$1,681**	**$3,047**	**$3,210**	**$3,302**	**$3,398**	**$3,497**	**$3,600**	**$3,706**	**$3,816**	**$2,946**	**$32,558**
26	Capital benefit, escalated	$0	$0	$0	$176	$826	$1,482	$1,546	$1,576	$1,608	$1,640	$1,673	$1,707	$1,741	$1,332	$15,307
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$179	$856	$1,565	$1,663	$1,726	$1,790	$1,857	$1,927	$1,999	$2,074	$1,614	$17,250
28	Cumulative, escalated	$0	$0	$0	$355	$2,036	$5,083	$8,293	$11,594	$14,992	$18,490	$22,090	$25,796	$29,611	$32,558	
29	Peak Annual Benefit, before escalation	$2,499	The highest year of the before-escalation Capital + Expense rows above.													
30	Peak Annual Benefit, Escalated	$3,816	The highest year on the Escalated Annual Benefit row above.													
31	Uplift on the highest year	52.69%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17R
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Transmission Engineering & Design (GTED) Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Transmission Engineering & Design (GTED) Engineer

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission x Gas Transmission Engineering & Design (GTED) Engineer

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	20.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**25.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	5.00%	5.00%	5.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17S
Pacific Gas and Electric Company
ERP and GIS Transformation
LEAPS Specialist (Biology, Cultural, Environment) - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	LEAPS Specialist (Biology, Cultural, Environment)

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough — *A* | *B* | *C* | *D* | *E* | *F* | *G = A+C+E* | *H=B+D+F*

Line No.	Operating Area	Direct Time Capital	Direct Time Expense	Management Overhead (OH) Capital	Management Overhead (OH) Expense	Benefits Overhead (OH) Capital	Benefits Overhead (OH) Expense	Total Addressable Spend Capital	Total Addressable Spend Expense
1	Land, Environmental & Permitting Services (LEAPS)	$1,008	$8,258	$856	$6,947	$249	$1,829	$2,113	$17,034
2	**TOTAL**	**$1,008**	**$8,258**	**$856**	**$6,947**	**$249**	**$1,829**	**$2,113**	**$17,034**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough — *A* | *B* | *C* | *D = A X C* | *E = B X C*

	Operating Area	Cost Type	Spend Capital	Spend Expense	Improvement Range %[1]	Gross Benefits Capital	Gross Benefits Expense
3	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$995	$8,160	15.00%	$149	$1,224
4		Management OH	$849	$6,899	15.00%	$127	$1,035
5		Benefits OH	$247	$1,814	15.00%	$37	$272
6		**Land, Environmental & Permitting Services (LEAPS) Total**	**$2,091**	**$16,873**	**15.00%**	**$314**	**$2,531**
7		**TOTAL**	**$2,091**	**$16,873**		**$314**	**$2,531**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough — *A* | *B* | *C* | *D* | *E = C X D* | *F = A X E* | *G = B X E*

	Operating Area	Cost Type	Capital	Expense	Realization Rate %	Exclusivity %	Confidence Factor %	Capital	Expense
8	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$149	$1,224	60.00%	75.00%	45.00%	$67	$551
9		Management OH	$127	$1,035	35.00%	75.00%	26.25%	$33	$272
10		Benefits OH	$37	$272	35.00%	75.00%	26.25%	$10	$71
11		**Land, Environmental & Permitting Services (LEAPS) Total**	**$314**	**$2,531**				**$110**	**$894**
12		**TOTAL**	**$314**	**$2,531**				**$110**	**$894**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Land, Environmental & Permitting Services (LEAPS)

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-Confidence Factor)
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$84
14	Capital share of benefit					10.99%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
15	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
16	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$151**	**$623**	**$984**	**$1,004**	**$1,004**	**$1,004**	**$1,004**	**$1,004**	**$1,004**	**$753**	**$8,536**
17	Capital	$0	$0	$0	$0	$17	$68	$108	$110	$110	$110	$110	$110	$110	$83	$938
18	Expense Incl. NEE	$0	$0	$0	$0	$134	$554	$876	$894	$894	$894	$894	$894	$894	$670	$7,598

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
19	Capital benefit, before escalation	$0	$0	$0	$0	$17	$68	$108	$110	$110	$110	$110	$110	$110	$83	$938
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$134	$554	$876	$894	$894	$894	$894	$894	$894	$670	$7,598
21	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$190**	**$812**	**$1,330**	**$1,405**	**$1,456**	**$1,508**	**$1,562**	**$1,618**	**$1,676**	**$1,302**	**$12,860**
24	Capital benefit, escalated	$0	$0	$0	$0	$19	$81	$130	$135	$138	$141	$144	$147	$150	$114	$1,199
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$171	$732	$1,200	$1,270	$1,318	$1,367	$1,418	$1,472	$1,527	$1,188	$11,661
26	Cumulative, escalated	$0	$0	$0	$0	$190	$1,002	$2,332	$3,737	$5,193	$6,701	$8,263	$9,881	$11,558	$12,860	
27	Peak Annual Benefit, before escalation	$1,004	The highest year of the before-escalation Capital + Expense rows above.													
28	Peak Annual Benefit, Escalated	$1,676	The highest year on the Escalated Annual Benefit row above.													
29	Uplift on the highest year	66.92%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17S
Pacific Gas and Electric Company
ERP and GIS Transformation
LEAPS Specialist (Biology, Cultural, Environment) - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	LEAPS Specialist (Biology, Cultural, Environment)

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - LEAPS x LEAPS Specialist (Biology, Cultural, Environment)

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	15.00%
31	Additional Business Enhancements Impact %	0.00%
32	**Improvement Range %' (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	10.00%	10.00%	10.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17T
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Agent/Consultant - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Agent/Consultant

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Land, Environmental & Permitting Services (LEAPS)	$1,123	$8,926	$480	$3,934	$241	$1,766	$1,843	$14,626
2	**TOTAL**	**$1,123**	**$8,926**	**$480**	**$3,934**	**$241**	**$1,766**	**$1,843**	**$14,626**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough		*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$1,122	$8,925	15.00%	$168	$1,339
4		Management OH	$480	$3,934	15.00%	$72	$590
5		Benefits OH	$241	$1,766	15.00%	$36	$265
6		**Land, Environmental & Permitting Services (LEAPS) Total**	**$1,843**	**$14,625**	**15.00%**	**$276**	**$2,194**
7		**TOTAL**	**$1,843**	**$14,625**		**$276**	**$2,194**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$168	$1,339	60.00%	75.00%	45.00%	$76	$602
9		Management OH	$72	$590	35.00%	75.00%	26.25%	$19	$155
10		Benefits OH	$36	$265	35.00%	75.00%	26.25%	$9	$70
11		**Land, Environmental & Permitting Services (LEAPS) Total**	**$276**	**$2,194**				**$104**	**$827**
12		**TOTAL**	**$276**	**$2,194**				**$104**	**$827**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Land, Environmental & Permitting Services (LEAPS)

Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13 Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$78
14 Capital share of benefit					11.19%

Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15 Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
16 Annual Benefit	**$0**	**$0**	**$0**	**$0**	**$140**	**$577**	**$912**	**$931**	**$931**	**$931**	**$931**	**$931**	**$931**	**$698**	**$7,913**
17 Capital	$0	$0	$0	$0	$16	$65	$102	$104	$104	$104	$104	$104	$104	$78	$885
18 Expense Incl. NEE	$0	$0	$0	$0	$124	$513	$810	$827	$827	$827	$827	$827	$827	$620	$7,028

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19 Capital benefit, before escalation	$0	$0	$0	$0	$16	$65	$102	$104	$104	$104	$104	$104	$104	$78	$885
20 Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$124	$513	$810	$827	$827	$827	$827	$827	$827	$620	$7,028
21 Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22 Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23 Escalated Annual Benefit	**$0**	**$0**	**$0**	**$0**	**$176**	**$753**	**$1,233**	**$1,303**	**$1,349**	**$1,398**	**$1,448**	**$1,500**	**$1,553**	**$1,207**	**$11,918**
24 Capital benefit, escalated	$0	$0	$0	$0	$18	$76	$123	$128	$130	$133	$136	$138	$141	$108	$1,132
25 Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$158	$677	$1,110	$1,175	$1,219	$1,265	$1,312	$1,361	$1,412	$1,099	$10,787
26 Cumulative, escalated	$0	$0	$0	$0	$176	$929	$2,161	$3,464	$4,813	$6,211	$7,658	$9,158	$10,711	$11,918	

27	Peak Annual Benefit, before escalation	$931	The highest year of the before-escalation Capital + Expense rows above.
28	Peak Annual Benefit, Escalated	$1,553	The highest year on the Escalated Annual Benefit row above.
29	Uplift on the highest year	66.85%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17T
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Agent/Consultant - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Agent/Consultant

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Land Agent/Consultant

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	15.00%
31	Additional Business Enhancements Impact %	0.00%
32	**Improvement Range %' (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	10.00%	10.00%	10.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17U
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Planner - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Planner

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough

		A	B	C	D	E	F	G = A+C+E	H=B+D+F
		Direct Time		Management Overhead (OH)		Benefits Overhead (OH)		Total Addressable Spend	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Land, Environmental & Permitting Services (LEAPS)	$774	$6,564	$690	$5,753	$255	$1,873	$1,720	$14,190
2	**TOTAL**	**$774**	**$6,564**	**$690**	**$5,753**	**$255**	**$1,873**	**$1,720**	**$14,190**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough

			A	B	C	D = A X C	E = B X C
			Spend			Gross Benefits	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$774	$6,561	25.00%	$193	$1,640
4		Management OH	$690	$5,750	25.00%	$172	$1,437
5		Benefits OH	$255	$1,873	25.00%	$64	$468
6		**Land, Environmental & Permitting Services (LEAPS) Total**	**$1,719**	**$14,183**	**25.00%**	**$430**	**$3,546**
7		**TOTAL**	**$1,719**	**$14,183**		**$430**	**$3,546**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough

			A	B	C	D	E = C X D	F = A X E	G = B X E
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$193	$1,640	55.00%	75.00%	41.25%	$80	$677
9		Management OH	$172	$1,437	30.00%	75.00%	22.50%	$39	$323
10		Benefits OH	$64	$468	30.00%	75.00%	22.50%	$14	$105
11		**Land, Environmental & Permitting Services (LEAPS) Total**	**$430**	**$3,546**				**$133**	**$1,105**
12		**TOTAL**	**$430**	**$3,546**				**$133**	**$1,105**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Land, Environmental & Permitting Services (LEAPS)

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$103
14	Capital share of benefit					10.74%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
16	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$186**	**$768**	**$1,214**	**$1,238**	**$1,238**	**$1,238**	**$1,238**	**$1,238**	**$1,238**	**$929**	**$10,525**
17	Capital	$0	$0	$0	$0	$20	$82	$130	$133	$133	$133	$133	$133	$133	$100	$1,130
18	Expense Incl. NEE	$0	$0	$0	$0	$166	$685	$1,083	$1,105	$1,105	$1,105	$1,105	$1,105	$1,105	$829	$9,395

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$20	$82	$130	$133	$133	$133	$133	$133	$133	$100	$1,130
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$166	$685	$1,083	$1,105	$1,105	$1,105	$1,105	$1,105	$1,105	$829	$9,395
21	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$234**	**$1,002**	**$1,640**	**$1,734**	**$1,796**	**$1,860**	**$1,927**	**$1,996**	**$2,068**	**$1,607**	**$15,864**
24	Capital benefit, escalated	$0	$0	$0	$0	$23	$97	$157	$163	$166	$170	$173	$177	$180	$138	$1,445
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$211	$905	$1,483	$1,570	$1,629	$1,690	$1,754	$1,820	$1,888	$1,469	$14,419
26	Cumulative, escalated	$0	$0	$0	$0	$234	$1,236	$2,876	$4,610	$6,406	$8,266	$10,193	$12,189	$14,257	$15,864	

27	Peak Annual Benefit, before escalation	$1,238	The highest year of the before-escalation Capital + Expense rows above.
28	Peak Annual Benefit, Escalated	$2,068	The highest year on the Escalated Annual Benefit row above.
29	Uplift on the highest year	67.01%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17U
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Planner - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Planner

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Land Planner

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	25.00%
31	Additional Business Enhancements Impact %	0.00%
32	**Improvement Range %' (combined)**	**25.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	5.00%	5.00%	5.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17V
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Technician

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough

		A	B	C	D	E	F	G = A+C+E	H=B+D+F
		Direct Time		Management Overhead (OH)		Benefits Overhead (OH)		Total Addressable Spend	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Land, Environmental & Permitting Services (LEAPS)	$961	$7,064	$197	$1,456	$364	$2,671	$1,522	$11,190
2	**TOTAL**	**$961**	**$7,064**	**$197**	**$1,456**	**$364**	**$2,671**	**$1,522**	**$11,190**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough

			A	B	C	D = A X C	E = B X C
			Spend			Gross Benefits	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$960	$7,054	15.00%	$144	$1,058
4		Management OH	$197	$1,455	15.00%	$30	$218
5		Benefits OH	$364	$2,671	15.00%	$55	$401
6		**Land, Environmental & Permitting Services (LEAPS) Total**	**$1,521**	**$11,181**	**15.00%**	**$228**	**$1,677**
7		**TOTAL**	**$1,521**	**$11,181**		**$228**	**$1,677**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough

			A	B	C	D	E = C X D	F = A X E	G = B X E
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$144	$1,058	60.00%	75.00%	45.00%	$65	$476
9		Management OH	$30	$218	35.00%	75.00%	26.25%	$8	$57
10		Benefits OH	$55	$401	35.00%	75.00%	26.25%	$14	$105
11		**Land, Environmental & Permitting Services (LEAPS) Total**	**$228**	**$1,677**				**$87**	**$639**
12		**TOTAL**	**$228**	**$1,677**				**$87**	**$639**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Land, Environmental & Permitting Services (LEAPS)

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13	Core Enhancements	Jul 2030	24	Jul 2032	Sep 2039	$60
14	Capital share of benefit					11.97%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	0.84	6.00	11.16	12.00	12.00	12.00	12.00	12.00	12.00	9.00	99.00
16	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$51**	**$363**	**$675**	**$726**	**$726**	**$726**	**$726**	**$726**	**$726**	**$544**	**$5,985**
17	Capital	$0	$0	$0	$0	$6	$43	$81	$87	$87	$87	$87	$87	$87	$65	$717
18	Expense Incl. NEE	$0	$0	$0	$0	$45	$319	$594	$639	$639	$639	$639	$639	$639	$479	$5,269

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$6	$43	$81	$87	$87	$87	$87	$87	$87	$65	$717
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$45	$319	$594	$639	$639	$639	$639	$639	$639	$479	$5,269
21	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$64**	**$473**	**$911**	**$1,014**	**$1,050**	**$1,088**	**$1,126**	**$1,167**	**$1,209**	**$939**	**$9,040**
24	Capital benefit, escalated	$0	$0	$0	$0	$7	$51	$97	$107	$109	$111	$113	$115	$118	$90	$918
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$57	$421	$813	$907	$941	$977	$1,013	$1,051	$1,091	$849	$8,121
26	Cumulative, escalated	$0	$0	$0	$0	$64	$537	$1,447	$2,461	$3,511	$4,599	$5,726	$6,892	$8,101	$9,040	

27	Peak Annual Benefit, before escalation	$726	The highest year of the before-escalation Capital + Expense rows above.
28	Peak Annual Benefit, Escalated	$1,209	The highest year on the Escalated Annual Benefit row above.
29	Uplift on the highest year	66.58%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17V
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Technician

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Land Technician

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	15.00%
31	Additional Business Enhancements Impact %	0.00%
32	**Improvement Range %[1] (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	10.00%	10.00%	10.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17W
Pacific Gas and Electric Company
ERP and GIS Transformation
Planner - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planner

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Land, Environmental & Permitting Services (LEAPS)	$238	$1,757	$159	$1,171	$21	$151	$418	$3,079
2	**TOTAL**	**$238**	**$1,757**	**$159**	**$1,171**	**$21**	**$151**	**$418**	**$3,079**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough		*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$238	$1,757	15.00%	$36	$264
4		Management OH	$159	$1,171	15.00%	$24	$176
5		Benefits OH	$21	$151	15.00%	$3	$23
6		**Land, Environmental & Permitting Services (LEAPS) Total**	**$418**	**$3,079**	**15.00%**	**$63**	**$462**
7		**TOTAL**	**$418**	**$3,079**		**$63**	**$462**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$36	$264	55.00%	75.00%	41.25%	$15	$109
9		Management OH	$24	$176	30.00%	75.00%	22.50%	$5	$40
10		Benefits OH	$3	$23	30.00%	75.00%	22.50%	$1	$5
11		**Land, Environmental & Permitting Services (LEAPS) Total**	**$63**	**$462**				**$21**	**$153**
12		**TOTAL**	**$63**	**$462**				**$21**	**$153**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Land, Environmental & Permitting Services (LEAPS)

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$15
14	Capital share of benefit					11.95%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
16	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$26**	**$108**	**$171**	**$174**	**$174**	**$174**	**$174**	**$174**	**$174**	**$131**	**$1,480**
17	Capital	$0	$0	$0	$0	$3	$13	$20	$21	$21	$21	$21	$21	$21	$16	$177
18	Expense Incl. NEE	$0	$0	$0	$0	$23	$95	$150	$153	$153	$153	$153	$153	$153	$115	$1,303

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$3	$13	$20	$21	$21	$21	$21	$21	$21	$16	$177
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$23	$95	$150	$153	$153	$153	$153	$153	$153	$115	$1,303
21	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$33**	**$141**	**$230**	**$243**	**$252**	**$261**	**$270**	**$280**	**$290**	**$225**	**$2,226**
24	Capital benefit, escalated	$0	$0	$0	$0	$4	$15	$25	$26	$26	$27	$27	$28	$28	$22	$226
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$29	$125	$206	$218	$226	$234	$243	$252	$262	$204	$2,000
26	Cumulative, escalated	$0	$0	$0	$0	$33	$174	$404	$647	$899	$1,160	$1,431	$1,711	$2,001	$2,226	

27	Peak Annual Benefit, before escalation	$174	The highest year of the before-escalation Capital + Expense rows above.
28	Peak Annual Benefit, Escalated	$290	The highest year on the Escalated Annual Benefit row above.
29	Uplift on the highest year	66.59%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17W
Pacific Gas and Electric Company
ERP and GIS Transformation
Planner - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planner

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Planner

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	15.00%
31	Additional Business Enhancements Impact %	0.00%
32	**Improvement Range %[1] (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	5.00%	5.00%	5.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17X
Pacific Gas and Electric Company
ERP and GIS Transformation
Planning Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planning Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough

		A	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$3,413	$1,256	$2,301	$846	$586	$215	$6,300	$2,318
2	Electric Transmission	$2,194	$807	$1,073	$395	$61	$23	$3,328	$1,224
3	Gas Transmission & Distribution	$4,577	$4,220	$3,256	$3,002	$487	$449	$8,319	$7,670
4	Power Generation	$139	$293	$25	$76	$61	$104	$226	$473
5	**TOTAL**	**$10,324**	**$6,576**	**$6,654**	**$4,318**	**$1,194**	**$791**	**$18,172**	**$11,685**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough

			A	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
6	Electric Distribution	Direct Time	$3,413	$1,256	15.00%	$512	$188
7		Management OH	$2,301	$846	15.00%	$345	$127
8		Benefits OH	$586	$215	15.00%	$88	$32
9		**Electric Distribution Total**	**$6,300**	**$2,318**	**15.00%**	**$945**	**$348**
10	Electric Transmission	Direct Time	$2,194	$807	21.67%	$475	$175
11		Management OH	$1,073	$395	21.67%	$232	$86
12		Benefits OH	$61	$23	21.67%	$13	$5
13		**Electric Transmission Total**	**$3,328**	**$1,224**	**21.67%**	**$721**	**$265**
14	Gas Transmission & Distribution	Direct Time	$4,577	$4,220	10.00%	$458	$422
15		Management OH	$3,256	$3,002	10.00%	$326	$300
16		Benefits OH	$487	$449	0	$49	$45
17		**Gas Transmission & Distribution Total**	**$8,319**	**$7,670**	**0**	**$832**	**$767**
18	Power Generation	Direct Time	$139	$293	0	$14	$29
19		Management OH	$25	$76	0	$3	$8
20		Benefits OH	$61	$104	0	$6	$10
21		**Power Generation Total**	**$226**	**$473**	**0**	**$23**	**$47**
22		**TOTAL**	**$18,172**	**$11,685**	**613**	**$2,520**	**$1,427**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer.
The factor is the Realization Rate multiplied by Exclusivity

Formula Walkthrough

			A	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
23	Electric Distribution	Direct Time	$512	$188	60.00%	75.00%	45.00%	$230	$85
24		Management OH	$345	$127	35.00%	75.00%	26.25%	$91	$33
25		Benefits OH	$88	$32	35.00%	75.00%	26.25%	$23	$8
26		**Electric Distribution Total**	**$945**	**$348**				**$344**	**$127**
27	Electric Transmission	Direct Time	$475	$175	60.00%	75.00%	45.00%	$214	$79
28		Management OH	$232	$86	35.00%	75.00%	26.25%	$61	$22
29		Benefits OH	$13	$5	35.00%	75.00%	26.25%	$3	$1
30		**Electric Transmission Total**	**$721**	**$265**				**$278**	**$102**
31	Gas Transmission & Distribution	Direct Time	$458	$422	60.00%	75.00%	45.00%	$206	$190
32		Management OH	$326	$300	35.00%	75.00%	26.25%	$85	$79
33		Benefits OH	$49	$45	35.00%	75.00%	26.25%	$13	$12
34		**Gas Transmission & Distribution Total**	**$832**	**$767**				**$304**	**$280**
35	Power Generation	Direct Time	$14	$29	0.00%	75.00%	0.00%	$0	$0
36		Management OH	$3	$8	0.00%	75.00%	0.00%	$0	$0
37		Benefits OH	$6	$10	0.00%	75.00%	0.00%	$0	$0
38		**Power Generation Total**	**$23**	**$47**				**$0**	**$0**
39		**TOTAL**	**$2,520**	**$1,427**				**$927**	**$509**

Workpaper 3-17X
Pacific Gas and Electric Company
ERP and GIS Transformation
Planning Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planning Engineer

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Distribution

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-confidence)
40	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$26
41	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$13
42	Capital share of benefit					73.10%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
43	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
44	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
45	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$92**	**$345**	**$464**	**$471**	**$471**	**$471**	**$471**	**$471**	**$471**	**$353**	**$4,079**
46	Capital	$0	$0	$0	$0	$67	$252	$339	$344	$344	$344	$344	$344	$344	$258	$2,982
47	Expense Incl. NEE	$0	$0	$0	$0	$25	$93	$125	$127	$127	$127	$127	$127	$127	$95	$1,097

Electric Transmission

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-confidence)
48	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$22
49	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$10
50	Capital share of benefit					73.10%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
51	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
52	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
53	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$73**	**$276**	**$376**	**$381**	**$381**	**$381**	**$381**	**$381**	**$381**	**$286**	**$3,296**
54	Capital	$0	$0	$0	$0	$54	$202	$275	$278	$278	$278	$278	$278	$278	$209	$2,409
55	Expense Incl. NEE	$0	$0	$0	$0	$20	$74	$101	$102	$102	$102	$102	$102	$102	$77	$886

Gas Transmission & Distribution

	Component	Benefit Starts	Time to Max (months)	Run Rate Reached	Benefits Stop	Peak Monthly (post-confidence)
56	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	$49
57	Capital share of benefit					52.03%

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
58	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
59	**Annual Benefit**	**$0**	**$0**	**$0**	**$88**	**$362**	**$573**	**$585**	**$585**	**$585**	**$585**	**$585**	**$585**	**$585**	**$438**	**$5,554**
60	Capital	$0	$0	$0	$46	$189	$298	$304	$304	$304	$304	$304	$304	$304	$228	$2,890
61	Expense Incl. NEE	$0	$0	$0	$42	$174	$275	$280	$280	$280	$280	$280	$280	$280	$210	$2,664

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
62	Capital benefit, before escalation	$0	$0	$0	$46	$310	$752	$918	$927	$927	$927	$927	$927	$927	$695	$8,281
63	Expense benefit incl. NEE, before escalation	$0	$0	$0	$42	$218	$442	$506	$509	$509	$509	$509	$509	$509	$382	$4,648
64	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
65	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
66	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$104**	**$638**	**$1,473**	**$1,799**	**$1,861**	**$1,911**	**$1,962**	**$2,015**	**$2,070**	**$2,126**	**$1,638**	**$17,598**
67	Capital benefit, escalated	$0	$0	$0	$52	$360	$890	$1,106	$1,137	$1,160	$1,183	$1,207	$1,231	$1,256	$961	$10,543
68	Expense benefit incl. NEE, escalated	$0	$0	$0	$52	$278	$583	$693	$724	$751	$779	$808	$839	$870	$677	$7,054
69	Cumulative, escalated	$0	$0	$0	$104	$741	$2,214	$4,013	$5,874	$7,785	$9,747	$11,763	$13,833	$15,959	$17,598	

70	Peak Annual Benefit, before escalation	$1,436	The highest year of the before-escalation Capital + Expense rows above.
71	Peak Annual Benefit, Escalated	$2,126	The highest year on the Escalated Annual Benefit row above.
72	Uplift on the highest year	48.07%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17X
Pacific Gas and Electric Company
ERP and GIS Transformation
Planning Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planning Engineer

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Distribution x Planning Engineer

A. BENEFIT PERCENTAGES

		Benefit %
73	Core Enhancements Improvement %	10.00%
74	Additional Business Enhancements Impact %	5.00%
75	**Improvement Range %' (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
76	Phase 0 Confidence	50.00%		
77	ED O&M / Medical Confidence		25.00%	25.00%
78	Value Validation Adjustment	5.00%	5.00%	5.00%
79	Value Lever Adjustment	5.00%	5.00%	5.00%
80	ERP Persona Adjustment	0.00%	0.00%	0.00%
81	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
82	Exclusivity %	75.00%

Assumptions & Reference Rates - Electric Transmission x Planning Engineer

A. BENEFIT PERCENTAGES

		Benefit %
83	Core Enhancements Improvement %	15.00%
84	Additional Business Enhancements Impact %	6.67%
85	**Improvement Range %' (combined)**	**21.67%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
86	Phase 0 Confidence	50.00%		
87	ED O&M / Medical Confidence		25.00%	25.00%
88	Value Validation Adjustment	5.00%	5.00%	5.00%
89	Value Lever Adjustment	5.00%	5.00%	5.00%
90	ERP Persona Adjustment	0.00%	0.00%	0.00%
91	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
92	Exclusivity %	75.00%

Workpaper 3-17X
Pacific Gas and Electric Company
ERP and GIS Transformation
Planning Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planning Engineer

Assumptions & Reference Rates - Gas Transmission & Distribution x Planning Engineer

A. BENEFIT PERCENTAGES

		Benefit %
93	Core Enhancements Improvement %	10.00%
94	Additional Business Enhancements Impact %	0.00%
95	**Improvement Range %' (combined)**	**10.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
96	Phase 0 Confidence	50.00%		
97	ED O&M / Medical Confidence		25.00%	25.00%
98	Value Validation Adjustment	10.00%	10.00%	10.00%
99	Value Lever Adjustment	0.00%	0.00%	0.00%
100	ERP Persona Adjustment	0.00%	0.00%	0.00%
101	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
102	Exclusivity %	75.00%

Assumptions & Reference Rates - Power Generation x Planning Engineer

A. BENEFIT PERCENTAGES

		Benefit %
103	Core Enhancements Improvement %	10.00%
104	Additional Business Enhancements Impact %	0.00%
105	**Improvement Range %' (combined)**	**10.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
106	Phase 0 Confidence	50.00%		
107	ED O&M / Medical Confidence		25.00%	25.00%
108	Value Validation Adjustment	0.00%	0.00%	0.00%
109	Value Lever Adjustment	-50.00%	-50.00%	-50.00%
110	ERP Persona Adjustment	0.00%	0.00%	0.00%
111	**Total Realization Rate**	**0.00%**	**0.00%**	**0.00%**

C. EXCLUSIVITY %

		Exclusivity %
112	Exclusivity %	75.00%

GLOSSARY

113	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
114	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
115	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
116	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
117	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
118	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
119	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
120	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
121	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
122	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17Y
Pacific Gas and Electric Company
ERP and GIS Transformation
Project Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Project Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$2,225	$819	$1,137	$418	$59	$22	$3,421	$1,258
2	Electric Transmission	$999	$367	$885	$325	$480	$176	$2,363	$869
3	**TOTAL**	**$3,223**	**$1,186**	**$2,021**	**$744**	**$539**	**$198**	**$5,783**	**$2,128**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough			*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
4	Electric Distribution	Direct Time	$2,225	$819	20.00%	$445	$164
5		Management OH	$1,137	$418	20.00%	$227	$84
6		Benefits OH	$59	$22	20.00%	$12	$4
7		**Electric Distribution Total**	**$3,421**	**$1,258**	**20.00%**	**$684**	**$252**
8	Electric Transmission	Direct Time	$999	$367	21.67%	$216	$80
9		Management OH	$885	$325	21.67%	$192	$71
10		Benefits OH	$480	$176	21.67%	$104	$38
11		**Electric Transmission Total**	**$2,363**	**$869**	**21.67%**	**$512**	**$188**
12		**TOTAL**	**$5,783**	**$2,128**		**$1,196**	**$440**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 49). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough			*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
13	Electric Distribution	Direct Time	$445	$164	60.00%	75.00%	45.00%	$200	$74
14		Management OH	$227	$84	35.00%	75.00%	26.25%	$60	$22
15		Benefits OH	$12	$4	35.00%	75.00%	26.25%	$3	$1
16		**Electric Distribution Total**	**$684**	**$252**				**$263**	**$97**
17	Electric Transmission	Direct Time	$216	$80	60.00%	75.00%	45.00%	$97	$36
18		Management OH	$192	$71	35.00%	75.00%	26.25%	$50	$19
19		Benefits OH	$104	$38	35.00%	75.00%	26.25%	$27	$10
20		**Electric Transmission Total**	**$512**	**$188**				**$175**	**$64**
21		**TOTAL**	**$1,196**	**$440**				**$438**	**$161**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
22	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$22
23	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$7
24	Capital share of benefit					73.10%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
25	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
26	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
27	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$66**	**$254**	**$354**	**$360**	**$360**	**$360**	**$360**	**$360**	**$360**	**$270**	**$3,103**
28	Capital	$0	$0	$0	$0	$49	$186	$259	$263	$263	$263	$263	$263	$263	$197	$2,268
29	Expense Incl. NEE	$0	$0	$0	$0	$18	$68	$95	$97	$97	$97	$97	$97	$97	$73	$835

Electric Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
30	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$14
31	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$6
32	Capital share of benefit					73.10%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
33	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
34	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
35	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$46**	**$174**	**$236**	**$239**	**$239**	**$239**	**$239**	**$239**	**$239**	**$179**	**$2,071**
36	Capital	$0	$0	$0	$0	$34	$127	$173	$175	$175	$175	$175	$175	$175	$131	$1,514
37	Expense Incl. NEE	$0	$0	$0	$0	$12	$47	$63	$64	$64	$64	$64	$64	$64	$48	$557

Workpaper 3-17Y
Pacific Gas and Electric Company
ERP and GIS Transformation
Project Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Project Engineer

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
38	Capital benefit, before escalation	$0	$0	$0	$0	$82	$312	$432	$438	$438	$438	$438	$438	$438	$328	$3,782
39	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$30	$115	$159	$161	$161	$161	$161	$161	$161	$121	$1,392
40	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
41	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
42	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$134**	**$521**	**$737**	**$766**	**$786**	**$806**	**$826**	**$847**	**$869**	**$668**	**$6,961**
43	Capital benefit, escalated	$0	$0	$0	$0	$96	$369	$520	$537	$548	$559	$571	$582	$594	$454	$4,830
44	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$38	$152	$217	$229	$238	$246	$256	$265	$275	$214	$2,131
45	Cumulative, escalated	$0	$0	$0	$0	$134	$655	$1,392	$2,158	$2,944	$3,750	$4,576	$5,423	$6,292	$6,961	
46	Peak Annual Benefit, before escalation	$599	The highest year of the before-escalation Capital + Expense rows above.													
47	Peak Annual Benefit, Escalated	$869	The highest year on the Escalated Annual Benefit row above.													
48	Uplift on the highest year	45.05%	The % increase of peak annual benefit due to escalation.													

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Distribution x Project Engineer

A. BENEFIT PERCENTAGES

		Benefit %
49	Core Enhancements Improvement %	15.00%
50	Additional Business Enhancements Impact %	5.00%
51	**Improvement Range %' (combined)**	**20.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
52	Phase 0 Confidence	50.00%		
53	ED O&M / Medical Confidence		25.00%	25.00%
54	Value Validation Adjustment	5.00%	5.00%	5.00%
55	Value Lever Adjustment	5.00%	5.00%	5.00%
56	ERP Persona Adjustment	0.00%	0.00%	0.00%
57	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
58	Exclusivity %	75.00%

Assumptions & Reference Rates - Electric Transmission x Project Engineer

A. BENEFIT PERCENTAGES

		Benefit %
59	Core Enhancements Improvement %	15.00%
60	Additional Business Enhancements Impact %	6.67%
61	**Improvement Range %' (combined)**	**21.67%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
62	Phase 0 Confidence	50.00%		
63	ED O&M / Medical Confidence		25.00%	25.00%
64	Value Validation Adjustment	5.00%	5.00%	5.00%
65	Value Lever Adjustment	5.00%	5.00%	5.00%
66	ERP Persona Adjustment	0.00%	0.00%	0.00%
67	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
68	Exclusivity %	75.00%

GLOSSARY

69	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
70	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
71	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
72	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
73	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
74	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
75	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
76	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
77	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
78	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17Z
Pacific Gas and Electric Company
ERP and GIS Transformation
Right of Way / Natural Resource Management - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Right of Way / Natural Resource Management

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		Management Overhead (OH)		Benefits Overhead (OH)		Total Addressable Spend	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Land, Environmental & Permitting Services (LEAPS)	$219	$1,609	$95	$701	$56	$411	$370	$2,720
2	**TOTAL**	**$219**	**$1,609**	**$95**	**$701**	**$56**	**$411**	**$370**	**$2,720**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough		*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			Gross Benefits	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$219	$1,609	15.00%	$33	$241
4		Management OH	$95	$701	15.00%	$14	$105
5		Benefits OH	$56	$411	15.00%	$8	$62
6		**Land, Environmental & Permitting Services (LEAPS) Total**	**$370**	**$2,720**	**15.00%**	**$55**	**$408**
7		**TOTAL**	**$370**	**$2,720**		**$55**	**$408**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough		*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Land, Environmental & Permitting Services (LEAPS)	Direct Time	$33	$241	55.00%	75.00%	41.25%	$14	$100
9		Management OH	$14	$105	30.00%	75.00%	22.50%	$3	$24
10		Benefits OH	$8	$62	30.00%	75.00%	22.50%	$2	$14
11		**Land, Environmental & Permitting Services (LEAPS) Total**	**$55**	**$408**				**$19**	**$137**
12		**TOTAL**	**$55**	**$408**				**$19**	**$137**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Land, Environmental & Permitting Services (LEAPS)

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-**
13	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$13
14	Capital share of benefit					11.96%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
16	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$23**	**$97**	**$153**	**$156**	**$156**	**$156**	**$156**	**$156**	**$156**	**$117**	**$1,323**
17	Capital	$0	$0	$0	$0	$3	$12	$18	$19	$19	$19	$19	$19	$19	$14	$158
18	Expense Incl. NEE	$0	$0	$0	$0	$21	$85	$134	$137	$137	$137	$137	$137	$137	$103	$1,165

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$3	$12	$18	$19	$19	$19	$19	$19	$19	$14	$158
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$21	$85	$134	$137	$137	$137	$137	$137	$137	$103	$1,165
21	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$29**	**$126**	**$206**	**$218**	**$225**	**$233**	**$242**	**$250**	**$259**	**$201**	**$1,990**
24	Capital benefit, escalated	$0	$0	$0	$0	$3	$14	$22	$23	$23	$24	$24	$25	$25	$19	$202
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$26	$112	$184	$195	$202	$210	$217	$226	$234	$182	$1,788
26	Cumulative, escalated	$0	$0	$0	$0	$29	$155	$361	$579	$804	$1,037	$1,279	$1,529	$1,789	$1,990	
27	Peak Annual Benefit, before escalation	$156	The highest year of the before-escalation Capital + Expense rows above.													
28	Peak Annual Benefit, Escalated	$259	The highest year on the Escalated Annual Benefit row above.													
29	Uplift on the highest year	66.58%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17Z
Pacific Gas and Electric Company
ERP and GIS Transformation
Right of Way / Natural Resource Management - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Right of Way / Natural Resource Management

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Right of Way / Natural Resource Management

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	15.00%
31	Additional Business Enhancements Impact %	0.00%
32	**Improvement Range %[1] (combined)**	**15.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	5.00%	5.00%	5.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17AA
Pacific Gas and Electric Company
ERP and GIS Transformation
System Operator - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	System Operator

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

Formula Walkthrough		*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Electric Distribution	$2,453	$9,239	$1,266	$4,765	$563	$2,119	$4,282	$16,123
2	Electric Transmission	$304	$1,145	$60	$227	$0	$0	$365	$1,372
3	**TOTAL**	**$2,758**	**$10,384**	**$1,326**	**$4,992**	**$563**	**$2,119**	**$4,647**	**$17,495**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

Formula Walkthrough			*A*	*B*	*C*	*D = A X C*	*E = B X C*
			Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
4	Electric Distribution	Direct Time	$2,453	$9,239	10.00%	$245	$924
5		Management OH	$1,266	$4,765	10.00%	$127	$477
6		Benefits OH	$563	$2,119	10.00%	$56	$212
7		**Electric Distribution Total**	**$4,282**	**$16,123**	**10.00%**	**$428**	**$1,612**
8	Electric Transmission	Direct Time	$304	$1,145	16.67%	$51	$191
9		Management OH	$60	$227	16.67%	$10	$38
10		Benefits OH	$0	$0	16.67%	$0	$0
11		**Electric Transmission Total**	**$365**	**$1,372**	**16.67%**	**$61**	**$229**
12		**TOTAL**	**$4,647**	**$17,495**		**$489**	**$1,841**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 49). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

Formula Walkthrough			*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
13	Electric Distribution	Direct Time	$245	$924	65.00%	75.00%	48.75%	$120	$450
14		Management OH	$127	$477	40.00%	75.00%	30.00%	$38	$143
15		Benefits OH	$56	$212	40.00%	75.00%	30.00%	$17	$64
16		**Electric Distribution Total**	**$428**	**$1,612**				**$174**	**$657**
17	Electric Transmission	Direct Time	$51	$191	55.00%	75.00%	41.25%	$21	$79
18		Management OH	$10	$38	30.00%	75.00%	22.50%	$2	$9
19		Benefits OH	$0	$0	30.00%	75.00%	22.50%	$0	$0
20		**Electric Transmission Total**	**$61**	**$229**				**$23**	**$87**
21		**TOTAL**	**$489**	**$1,841**				**$198**	**$744**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit; from Run Rate Reached until Benefits Stop, every month earns the full amount. Months Realized adds those monthly fractions up for each year, and the annual benefit is the post-confidence peak monthly benefit × Months Realized. Shown before escalation; the Rate Escalation block below applies the published rates.

Electric Distribution

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
22	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$35
23	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$35
24	Capital share of benefit					20.99%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
25	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
26	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
27	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$182**	**$657**	**$823**	**$831**	**$831**	**$831**	**$831**	**$831**	**$831**	**$624**	**$7,275**
28	Capital	$0	$0	$0	$0	$38	$138	$173	$174	$174	$174	$174	$174	$174	$131	$1,527
29	Expense Incl. NEE	$0	$0	$0	$0	$144	$519	$650	$657	$657	$657	$657	$657	$657	$493	$5,748

Electric Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
30	Core Enhancements	Apr 2030	24	Apr 2032	Sep 2039	$6
31	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$4
32	Capital share of benefit					21.00%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
33	Months Realized - Core Enhancements	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	9.00	102.00
34	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
35	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$23**	**$84**	**$109**	**$110**	**$110**	**$110**	**$110**	**$110**	**$110**	**$83**	**$960**
36	Capital	$0	$0	$0	$0	$5	$18	$23	$23	$23	$23	$23	$23	$23	$17	$202
37	Expense Incl. NEE	$0	$0	$0	$0	$18	$66	$86	$87	$87	$87	$87	$87	$87	$65	$759

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
38	Capital benefit, before escalation	$0	$0	$0	$0	$43	$156	$196	$198	$198	$198	$198	$198	$198	$148	$1,728
39	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$162	$585	$737	$744	$744	$744	$744	$744	$744	$558	$6,507
40	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
41	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
42	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$256**	**$957**	**$1,244**	**$1,300**	**$1,344**	**$1,390**	**$1,438**	**$1,488**	**$1,539**	**$1,194**	**$12,150**
43	Capital benefit, escalated	$0	$0	$0	$0	$50	$184	$236	$243	$247	$252	$257	$263	$268	$205	$2,205
44	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$206	$773	$1,009	$1,057	$1,097	$1,138	$1,181	$1,225	$1,271	$989	$9,945
45	Cumulative, escalated	$0	$0	$0	$0	$256	$1,213	$2,457	$3,756	$5,101	$6,491	$7,929	$9,417	$10,956	$12,150	

46	Peak Annual Benefit, before escalation	$942	The highest year of the before-escalation Capital + Expense rows above.
47	Peak Annual Benefit, Escalated	$1,539	The highest year on the Escalated Annual Benefit row above.
48	Uplift on the highest year	63.40%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AA
Pacific Gas and Electric Company
ERP and GIS Transformation
System Operator - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	System Operator

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Electric Distribution x System Operator

A. BENEFIT PERCENTAGES

		Benefit %
49	Core Enhancements Improvement %	5.00%
50	Additional Business Enhancements Impact %	5.00%
51	**Improvement Range %' (combined)**	**10.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
52	Phase 0 Confidence	50.00%		
53	ED O&M / Medical Confidence		25.00%	25.00%
54	Value Validation Adjustment	10.00%	10.00%	10.00%
55	Value Lever Adjustment	5.00%	5.00%	5.00%
56	ERP Persona Adjustment	0.00%	0.00%	0.00%
57	**Total Realization Rate**	**65.00%**	**40.00%**	**40.00%**

C. EXCLUSIVITY %

		Exclusivity %
58	Exclusivity %	75.00%

Assumptions & Reference Rates - Electric Transmission x System Operator

A. BENEFIT PERCENTAGES

		Benefit %
59	Core Enhancements Improvement %	10.00%
60	Additional Business Enhancements Impact %	6.67%
61	**Improvement Range %' (combined)**	**16.67%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
62	Phase 0 Confidence	50.00%		
63	ED O&M / Medical Confidence		25.00%	25.00%
64	Value Validation Adjustment	5.00%	5.00%	5.00%
65	Value Lever Adjustment	0.00%	0.00%	0.00%
66	ERP Persona Adjustment	0.00%	0.00%	0.00%
67	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
68	Exclusivity %	75.00%

GLOSSARY

69	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
70	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
71	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
72	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
73	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
74	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
75	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
76	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
77	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
78	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17AB
Pacific Gas and Electric Company
ERP and GIS Transformation
Transmission Integrity Management Program (TIMP) Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Transmission Integrity Management Program (TIMP) Engineer

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission	$462	$426	$263	$243	$5	$5	$731	$674
2	**TOTAL**	**$462**	**$426**	**$263**	**$243**	**$5**	**$5**	**$731**	**$674**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission	Direct Time	$462	$426	35.00%	$162	$149
4		Management OH	$263	$243	35.00%	$92	$85
5		Benefits OH	$5	$5	35.00%	$2	$2
6		**Gas Transmission Total**	**$731**	**$674**	**35.00%**	**$256**	**$236**
7		**TOTAL**	**$731**	**$674**		**$256**	**$236**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission	Direct Time	$162	$149	65.00%	75.00%	48.75%	$79	$73
9		Management OH	$92	$85	40.00%	75.00%	30.00%	$28	$25
10		Benefits OH	$2	$2	40.00%	75.00%	30.00%	$1	$0
11		**Gas Transmission Total**	**$256**	**$236**				**$107**	**$99**
12		**TOTAL**	**$256**	**$236**				**$107**	**$99**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	$15
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$2
15	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$26**	**$118**	**$201**	**$206**	**$206**	**$206**	**$206**	**$206**	**$206**	**$206**	**$154**	**$1,940**
19	Capital	$0	$0	$0	$14	$61	$105	$107	$107	$107	$107	$107	$107	$107	$80	$1,009
20	Expense Incl. NEE	$0	$0	$0	$13	$57	$96	$99	$99	$99	$99	$99	$99	$99	$74	$931

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$14	$61	$105	$107	$107	$107	$107	$107	$107	$107	$80	$1,009
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$13	$57	$96	$99	$99	$99	$99	$99	$99	$99	$74	$931
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$31**	**$143**	**$251**	**$264**	**$272**	**$279**	**$288**	**$296**	**$305**	**$314**	**$242**	**$2,685**
26	Capital benefit, escalated	$0	$0	$0	$16	$71	$124	$129	$131	$134	$137	$139	$142	$145	$111	$1,279
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$16	$72	$127	$135	$140	$145	$151	$157	$162	$169	$131	$1,405
28	Cumulative, escalated	$0	$0	$0	$31	$174	$425	$689	$961	$1,241	$1,528	$1,824	$2,129	$2,443	$2,685	

29	Peak Annual Benefit, before escalation	$206	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$314	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	52.47%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AB
Pacific Gas and Electric Company
ERP and GIS Transformation
Transmission Integrity Management Program (TIMP) Engineer - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Transmission Integrity Management Program (TIMP) Engineer

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission x Transmission Integrity Management Program (TIMP) Engineer

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	30.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**35.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	15.00%	15.00%	15.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**65.00%**	**40.00%**	**40.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17AC
Pacific Gas and Electric Company
ERP and GIS Transformation
Transmission Integrity Management Program (TIMP) GIS Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Transmission Integrity Management Program (TIMP) GIS Technician

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		Management Overhead (OH)		Benefits Overhead (OH)		Total Addressable Spend	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Gas Transmission	$517	$476	$284	$262	$1	$1	$801	$739
2	**TOTAL**	**$517**	**$476**	**$284**	**$262**	**$1**	**$1**	**$801**	**$739**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			Gross Benefits	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Gas Transmission	Direct Time	$517	$476	20.00%	$103	$95
4		Management OH	$284	$262	20.00%	$57	$52
5		Benefits OH	$1	$1	20.00%	$0	$0
6		**Gas Transmission Total**	**$801**	**$739**	**20.00%**	**$160**	**$148**
7		**TOTAL**	**$801**	**$739**		**$160**	**$148**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 32). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Gas Transmission	Direct Time	$103	$95	65.00%	75.00%	48.75%	$50	$46
9		Management OH	$57	$52	40.00%	75.00%	30.00%	$17	$16
10		Benefits OH	$0	$0	40.00%	75.00%	30.00%	$0	$0
11		**Gas Transmission Total**	**$160**	**$148**				**$67**	**$62**
12		**TOTAL**	**$160**	**$148**				**$67**	**$62**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Gas Transmission

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Core Enhancements	Apr 2029	24	Apr 2031	Sep 2039	$8
14	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$3
15	Capital share of benefit					52.03%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
16	Months Realized - Core Enhancements	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
17	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$15**	**$70**	**$126**	**$130**	**$130**	**$130**	**$130**	**$130**	**$130**	**$130**	**$97**	**$1,215**
19	Capital	$0	$0	$0	$8	$36	$66	$67	$67	$67	$67	$67	$67	$67	$51	$632
20	Expense Incl. NEE	$0	$0	$0	$7	$33	$61	$62	$62	$62	$62	$62	$62	$62	$47	$583

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
21	Capital benefit, before escalation	$0	$0	$0	$8	$36	$66	$67	$67	$67	$67	$67	$67	$67	$51	$632
22	Expense benefit incl. NEE, before escalation	$0	$0	$0	$7	$33	$61	$62	$62	$62	$62	$62	$62	$62	$47	$583
23	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
24	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
25	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$17**	**$85**	**$158**	**$166**	**$171**	**$176**	**$181**	**$187**	**$192**	**$198**	**$153**	**$1,683**
26	Capital benefit, escalated	$0	$0	$0	$9	$42	$78	$81	$83	$84	$86	$88	$90	$91	$70	$802
27	Expense benefit incl. NEE, escalated	$0	$0	$0	$9	$42	$80	$85	$88	$92	$95	$99	$102	$106	$83	$881
28	Cumulative, escalated	$0	$0	$0	$17	$102	$260	$426	$597	$773	$954	$1,141	$1,333	$1,531	$1,683	

29	Peak Annual Benefit, before escalation	$130	The highest year of the before-escalation Capital + Expense rows above.
30	Peak Annual Benefit, Escalated	$198	The highest year on the Escalated Annual Benefit row above.
31	Uplift on the highest year	52.47%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AC
Pacific Gas and Electric Company
ERP and GIS Transformation
Transmission Integrity Management Program (TIMP) GIS Technician - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Transmission Integrity Management Program (TIMP) GIS Technician

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Gas Transmission x Transmission Integrity Management Program (TIMP) GIS Technician

A. BENEFIT PERCENTAGES

		Benefit %
32	Core Enhancements Improvement %	15.00%
33	Additional Business Enhancements Impact %	5.00%
34	**Improvement Range %' (combined)**	**20.00%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
35	Phase 0 Confidence	50.00%		
36	ED O&M / Medical Confidence		25.00%	25.00%
37	Value Validation Adjustment	15.00%	15.00%	15.00%
38	Value Lever Adjustment	0.00%	0.00%	0.00%
39	ERP Persona Adjustment	0.00%	0.00%	0.00%
40	**Total Realization Rate**	**65.00%**	**40.00%**	**40.00%**

C. EXCLUSIVITY %

		Exclusivity %
41	Exclusivity %	75.00%

GLOSSARY

42	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
43	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
44	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
45	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
46	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
47	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
48	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
49	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
50	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
51	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17AD
Pacific Gas and Electric Company
ERP and GIS Transformation
Telecomm Field Worker - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Telecomm Field Worker

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Telecommunications	$17,210	$19,419	$10,807	$12,192	$4,190	$4,728	$32,207	$36,340
2	**TOTAL**	**$17,210**	**$19,419**	**$10,807**	**$12,192**	**$4,190**	**$4,728**	**$32,207**	**$36,340**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Telecommunications	Direct Time	$16,326	$18,422	6.67%	$1,088	$1,228
4		Management OH	$10,415	$11,750	6.67%	$694	$783
5		Benefits OH	$4,182	$4,718	6.67%	$279	$315
6		**Telecommunications Total**	**$30,922**	**$34,890**	**6.67%**	**$2,061**	**$2,326**
7		**TOTAL**	**$30,922**	**$34,890**		**$2,061**	**$2,326**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Telecommunications	Direct Time	$1,088	$1,228	60.00%	75.00%	45.00%	$490	$553
9		Management OH	$694	$783	35.00%	75.00%	26.25%	$182	$206
10		Benefits OH	$279	$315	35.00%	75.00%	26.25%	$73	$83
11		**Telecommunications Total**	**$2,061**	**$2,326**				**$745**	**$841**
12		**TOTAL**	**$2,061**	**$2,326**				**$745**	**$841**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Telecommunications

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$132
14	Capital share of benefit					47%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
16	**Annual Benefit**	**0**	**0**	**0**	**0**	**458**	**1,525**	**1,586**	**1,586**	**1,586**	**1,586**	**1,586**	**1,586**	**1,586**	**1,190**	**14,275**
17	Capital	$0	$0	$0	$0	$215	$717	$745	$745	$745	$745	$745	$745	$745	$559	$6,707
18	Expense Incl. NEE	$0	$0	$0	$0	$243	$809	$841	$841	$841	$841	$841	$841	$841	$631	$7,568

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$215	$717	$745	$745	$745	$745	$745	$745	$745	$559	$6,707
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$243	$809	$841	$841	$841	$841	$841	$841	$841	$631	$7,568
21	Capital escalation rate	1.0781489	1.0990111	1.1202771	1.1419545	1.1612539	1.1821567	1.2040268	1.2271439	1.2516869	1.2768456	1.3026381	1.3289514	1.3557961	1.3831832	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$558**	**$1,914**	**$2,049**	**$2,109**	**$2,172**	**$2,237**	**$2,305**	**$2,375**	**$2,446**	**$1,891**	**$20,057**
24	Capital benefit, escalated	$0	$0	$0	$0	$250	$847	$897	$914	$933	$952	$971	$990	$1,010	$773	$8,537
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$309	$1,067	$1,152	$1,195	$1,239	$1,286	$1,334	$1,384	$1,436	$1,117	$11,519
26	Cumulative, escalated	$0	$0	$0	$0	$558	$2,472	$4,521	$6,630	$8,803	$11,040	$13,345	$15,720	$18,166	$20,057	

27	Peak Annual Benefit, before escalation	$1,586	The highest year of the before-escalation Capital + Expense rows above.
28	Peak Annual Benefit, Escalated	2,446	The highest year on the Escalated Annual Benefit row above.
29	Uplift on the highest year	$0	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AD
Pacific Gas and Electric Company
ERP and GIS Transformation
Telecomm Field Worker - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Telecomm Field Worker

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Telecommunications x Telecomm Field Worker

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	0.00%
31	Additional Business Enhancements Impact %	6.67%
32	**Improvement Range %' (combined)**	**6.67%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	5.00%	5.00%	5.00%
37	ERP Persona Adjustment	5.00%	5.00%	5.00%
38	**Total Realization Rate**	**60.00%**	**35.00%**	**35.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17AE
Pacific Gas and Electric Company
ERP and GIS Transformation
Telecomm Product Owner - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Telecomm Product Owner

STEP 1 OF 3: DIRECT TIME + OH ALLOCATION

Direct time is standard time, overtime and double time for applicable job titles. Management overhead (Management OH) and benefits overhead (Benefits OH) are then applied to reach total addressable spend.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E*	*F*	*G = A+C+E*	*H=B+D+F*
		Direct Time		**Management Overhead (OH)**		**Benefits Overhead (OH)**		**Total Addressable Spend**	
Line No.	**Operating Area**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**	**Capital**	**Expense**
1	Telecommunications	$3,798	$4,285	$1,771	$1,997	$632	$713	$6,201	$6,996
2	**TOTAL**	**$3,798**	**$4,285**	**$1,771**	**$1,997**	**$632**	**$713**	**$6,201**	**$6,996**

STEP 2 OF 3: APPLY IMPROVEMENT RANGE[1]

The improvement range is set by role and operating area on the Assumptions workpaper. It is the same for all three spend layers, so each layer is shown against the spend it carries.
The Improvement Range[1] comes from the Assumptions section at the bottom of this workpaper.

	Formula Walkthrough	*A*	*B*	*C*	*D = A X C*	*E = B X C*
		Spend			**Gross Benefits**	
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Improvement Range %[1]**	**Capital**	**Expense**
3	Telecommunications	Direct Time	$3,797	$4,283	8.33%	$316	$357
4		Management OH	$1,770	$1,997	8.33%	$147	$166
5		Benefits OH	$632	$713	8.33%	$53	$59
6		**Telecommunications Total**	**$6,199**	**$6,993**	**8.33%**	**$517**	**$583**
7		**TOTAL**	**$6,199**	**$6,993**		**$517**	**$583**

STEP 3 OF 3: APPLY CONFIDENCE FACTOR (REALIZATION × EXCLUSIVITY)

A Confidence Factor is then applied to each spend layer. The factor is the Realization Rate multiplied by Exclusivity Rate (See Assumptions by Operating Area starting on line 30). Direct Time retains the most of the gross benefit, while the two overhead layers retain less benefit, as there is more uncertainty.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C X D*	*F = A X E*	*G = B X E*
	Operating Area	**Cost Type**	**Capital**	**Expense**	**Realization Rate %**	**Exclusivity %**	**Confidence Factor %**	**Capital**	**Expense**
8	Telecommunications	Direct Time	$316	$357	55.00%	75.00%	41.25%	$131	$147
9		Management OH	$147	$166	30.00%	75.00%	22.50%	$33	$37
10		Benefits OH	$53	$59	30.00%	75.00%	22.50%	$12	$13
11		**Telecommunications Total**	**$517**	**$583**				**$176**	**$198**
12		**TOTAL**	**$517**	**$583**				**$176**	**$198**

YEAR-OVER-YEAR SCHEDULE

Each component earns its peak monthly benefit once it reaches its run rate. While a component ramps, its nth month earns n ÷ (Time to Max + 1) of the peak monthly benefit: from

Telecommunications

	Component	**Benefit Starts**	**Time to Max (months)**	**Run Rate Reached**	**Benefits Stop**	**Peak Monthly (post-confidence)**
13	Additional Business Enhancements	Apr 2030	12	Apr 2031	Sep 2039	$31
14	Capital share of benefit					47%

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Months Realized - Additional Business Enhancements	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
16	**Annual Benefit**	**0**	**0**	**0**	**0**	**108**	**359**	**374**	**374**	**374**	**374**	**374**	**374**	**374**	**280**	**3,362**
17	Capital	$0	$0	$0	$0	$51	$169	$176	$176	$176	$176	$176	$176	$176	$132	$1,580
18	Expense Incl. NEE	$0	$0	$0	$0	$57	$190	$198	$198	$198	$198	$198	$198	$198	$149	$1,782

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
19	Capital benefit, before escalation	$0	$0	$0	$0	$51	$169	$176	$176	$176	$176	$176	$176	$176	$132	$1,580
20	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$57	$190	$198	$198	$198	$198	$198	$198	$198	$149	$1,782
21	Capital escalation rate	1.0781489	1.0990111	1.1202771	1.1419545	1.1612539	1.1821567	1.2040268	1.2271439	1.2516869	1.2768456	1.3026381	1.3289514	1.3557961	1.3831832	
22	Expense escalation rate	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976	
23	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$131**	**$451**	**$483**	**$497**	**$512**	**$527**	**$543**	**$559**	**$576**	**$445**	**$4,724**
24	Capital benefit, escalated	$0	$0	$0	$0	$59	$200	$211	$215	$220	$224	$229	$233	$238	$182	$2,011
25	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$73	$251	$271	$281	$292	$303	$314	$326	$338	$263	$2,713
26	Cumulative, escalated	$0	$0	$0	$0	$131	$582	$1,065	$1,562	$2,073	$2,600	$3,143	$3,703	$4,279	$4,724	
27	Peak Annual Benefit, before escalation	$374	The highest year of the before-escalation Capital + Expense rows above.													
28	Peak Annual Benefit, Escalated	576	The highest year on the Escalated Annual Benefit row above.													
29	Uplift on the highest year	$0	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17AE
Pacific Gas and Electric Company
ERP and GIS Transformation
Telecomm Product Owner - Internal Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Telecomm Product Owner

ASSUMPTIONS BY OPERATING AREA

Assumptions & Reference Rates - Telecommunications x Telecomm Product Owner

A. BENEFIT PERCENTAGES

		Benefit %
30	Core Enhancements Improvement %	0.00%
31	Additional Business Enhancements Impact %	8.33%
32	**Improvement Range %' (combined)**	**8.33%**

B. CONFIDENCE FACTORS

		Direct Time	Mgmt OH	Benefits OH
33	Phase 0 Confidence	50.00%		
34	ED O&M / Medical Confidence		25.00%	25.00%
35	Value Validation Adjustment	0.00%	0.00%	0.00%
36	Value Lever Adjustment	5.00%	5.00%	5.00%
37	ERP Persona Adjustment	0.00%	0.00%	0.00%
38	**Total Realization Rate**	**55.00%**	**30.00%**	**30.00%**

C. EXCLUSIVITY %

		Exclusivity %
39	Exclusivity %	75.00%

GLOSSARY

40	Benefits OH	Employee benefit costs (e.g., health, pension) recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
41	Capital % / Expense %	Each Workpaper 3-17AY row's share of benefit that is Capital or Expense (0% Capital on Vegetation Management rows). Every step above splits each row's benefit by these two columns.
42	Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
43	Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
44	Exclusivity	Percentage of the benefit attributable to GIS, excluding benefits associated with other initiatives.
45	Gross Benefit	Total Addressable Spend multiplied by the applicable improvement rate, before applying the confidence factor.
46	Improvement Range %'	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
47	Management OH	Indirect labor costs associated with manager overheads recorded in the General Ledger (GL) and allocated to roles charging direct time within the same budget organization and cost category (capital or expense).
48	Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on Workpaper 3-17AW.
49	Total Addressable Spend	Direct time plus management overhead plus benefits overhead. The fully burdened cost of the worker, and the base the Improvement Range % is applied to.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-17AF
Pacific Gas and Electric Company
ERP and GIS Transformation
Modernized GIS Technology - External Labor
(Thousands of Dollars - Escalated)

External Labor - Modernized GIS Technology

ROLLUP, ESCALATED

Line No.	Role	Operating Area	Peak - Capital	Peak - Expense	Peak Annual	Life-of-Project
1	Corrosion Field Technician	Gas Distribution	$34	$1,104	$1,138	$9,117
2	Corrosion Field Technician	Gas Transmission	$39	$1,262	$1,300	$9,327
3	Engineer	Electric Transmission & Distribution	$544	$789	$1,333	$10,990
4	Engineer	Power Generation	$0	$0	$0	$0
5	Estimator	Electric Transmission & Distribution	$3,359	$1,190	$4,549	$37,597
6	Estimator	Power Generation	$0	$0	$0	$0
9	Gas Distribution Engineering & Design (GDED) Engineer	Gas Distribution	$48	$757	$804	$7,141
10	Gas Distribution Engineering & Design (GDED) Engineer	Gas Transmission	$0	$0	$0	$0
11	Gas Transmission Engineering & Design (GTED) Engineer	Gas Distribution	$0	$0	$0	$0
12	Gas Transmission Engineering & Design (GTED) Engineer	Gas Transmission	$41	$649	$690	$6,121
13	LEAPS Specialist (Biology, Cultural, Environment)	LEAPS	$0	$0	$0	$0
14	Land Planner	Land, Environmental & Permitting Services (LEAPS)	$1,130	$8,354	$9,484	$78,007
15	Land Technician	Land, Environmental & Permitting Services (LEAPS)	$237	$1,470	$1,708	$13,696
17	Planner	Land, Environmental & Permitting Services (LEAPS)	$812	$8,282	$9,095	$74,793
18	**TOTAL**		**$6,244**	**$23,857**	**$30,100**	**$246,790**

TOTAL NET BENEFIT BY YEAR, ESCALATED

	Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
19	**Total Net Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$278**	**$7,161**	**$23,292**	**$25,763**	**$26,476**	**$27,060**	**$27,640**	**$28,236**	**$28,844**	**$29,466**	**$22,575**
20	Capital	$0	$0	$0	$0	$0	$17	$1,508	$5,084	$5,431	$5,540	$5,650	$5,764	$5,880	$5,999	$6,120	$4,683
21	Expense Incl. NEE	$0	$0	$0	$0	$0	$261	$5,653	$18,208	$20,332	$20,936	$21,410	$21,876	$22,355	$22,845	$23,345	$17,892

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
22	Capital benefit, before escalation	$0	$0	$0	$15	$1,299	$4,301	$4,510	$4,514	$4,514	$4,514	$4,514	$4,514	$4,514	$3,386	$40,595
23	Expense benefit incl. NEE, before escalation	$0	$0	$0	$233	$4,932	$15,554	$16,985	$17,107	$17,107	$17,107	$17,107	$17,107	$17,107	$12,830	$153,173
24	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
25	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
26	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$278**	**$7,161**	**$23,292**	**$25,763**	**$26,476**	**$27,060**	**$27,640**	**$28,236**	**$28,844**	**$29,466**	**$22,575**	**$246,790**
27	Capital benefit, escalated	$0	$0	$0	$17	$1,508	$5,084	$5,431	$5,540	$5,650	$5,764	$5,880	$5,999	$6,120	$4,683	$51,676
28	Expense benefit incl. NEE, escalated	$0	$0	$0	$261	$5,653	$18,208	$20,332	$20,936	$21,410	$21,876	$22,355	$22,845	$23,345	$17,892	$195,114
29	Check: Escalated Annual less Total Net Benefit above	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
30	Cumulative, escalated	$0	$0	$0	$278	$7,439	$30,731	$56,493	$82,969	$110,029	$137,669	$165,905	$194,749	$224,215	$246,790	

31	Peak Annual Benefit, before escalation	$21,621	The highest year of the before-escalation Capital + Expense rows above.
32	Peak Annual Benefit, Escalated	$29,466	The highest year on the Escalated Annual Benefit row above.
33	Uplift on the highest year	36.28%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AG
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Field Technician - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Field Technician

OPERATING AREA DETAIL: Corrosion Field Technician × Gas Distribution
External Labor Benefit Walkthrough - Gas Distribution x Corrosion Field Technician

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$15,546

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	20.00%	$3,109

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	35.00%	75.00%	$816

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	100.00%	$816	$68
5	Additional Business Enhancements	0.00%	$0	$0
6	**Combined Peak Annual Benefit**		**$816**	**$68**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	ERP	ERP
9	First month earning benefit	Jul 2030	Apr 2030
10	Full run-rate reached	Jul 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$68	$0
14	Monthly increment during ramp	$5	$0
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**TOTAL**
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	1.62	10.38	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	105.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$110	$706	$816	$816	$816	$816	$816	$816	$816	$612	$7,141
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$110**	**$706**	**$816**	**$816**	**$816**	**$816**	**$816**	**$816**	**$816**	**$612**	**$7,141**
21	Capital	$0	$0	$0	$0	$0	$0	$3	$21	$24	$24	$24	$24	$24	$24	$24	$18	$214
22	Expense	$0	$0	$0	$0	$0	$0	$107	$685	$792	$792	$792	$792	$792	$792	$792	$594	$6,927
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$146	$942	$1,088	$1,088	$1,088	$1,088	$1,088	$1,088	$1,088	$816	$9,522
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$37	$235	$272	$272	$272	$272	$272	$272	$272	$204	$2,380
25	Cumulative	$0	$0	$0	$0	$0	$0	$110	$816	$1,632	$2,448	$3,265	$4,081	$4,897	$5,713	$6,529	$7,141	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
26	Capital benefit, before escalation	$0	$0	$0	$0	$3	$21	$24	$24	$24	$24	$24	$24	$24	$18	$214
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$107	$685	$792	$792	$792	$792	$792	$792	$792	$594	$6,927
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$126**	**$827**	**$977**	**$999**	**$1,021**	**$1,044**	**$1,066**	**$1,090**	**$1,114**	**$853**	**$9,117**
31	Capital benefit, escalated	$0	$0	$0	$0	$4	$25	$29	$30	$31	$31	$32	$33	$33	$25	$273
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$122	$802	$948	$969	$991	$1,012	$1,035	$1,057	$1,080	$828	$8,844
33	Cumulative, escalated	$0	$0	$0	$0	$126	$953	$1,930	$2,929	$3,951	$4,994	$6,061	$7,150	$8,264	$9,117	

34	Peak Annual Benefit, before escalation	$816	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$1,114	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	36.44%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AG
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Field Technician - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Field Technician

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$816**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$7,141**	**Sum of the Step 6 combined row**
39	Capital	$214	Sum of the Step 6 Capital row
40	Expense	$6,927	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$24	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$792	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Optimized Backlog, Routing and Work Bundling
Ramp Schedule - Gas Distribution x Corrosion Field Technician
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Jul 2030	Apr 2030
44	Month Index	67	0
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	1.62
56	2031	0.54	0.62	0.69	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	10.38
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**105.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	**TOTAL**													**0.00**

Workpaper 3-17AG
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Field Technician - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Field Technician

OPERATING AREA DETAIL: Corrosion Field Technician × Gas Transmission
External Labor Benefit Walkthrough - Gas Transmission x Corrosion Field Technician

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

	Item	Amount
83	Addressable spend (excl. Transformation rows)	$15,546

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
84	Gross benefit	20.00%	$3,109

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
85	Confidence-adjusted benefit	40.00%	75.00%	$933

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
86	Core Enhancements	100.00%	$933	$78
87	Additional Business Enhancements	0.00%	$0	$0
88	**Combined Peak Annual Benefit**		**$933**	**$78**

STEP 5: Ramp Parameters

		Core Enhancements	Additional Business Enhancements
89	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
90	Ramp driven by	ERP	ERP
91	First month earning benefit	Jul 2031	Apr 2030
92	Full run-rate reached	Jul 2032	Apr 2031
93	Ramp length (months)	12	12
94	Ramp steps (length + 1)	13	13
95	Peak monthly benefit (post-exclusivity)	$78	$0
96	Monthly increment during ramp	$6	$0
97	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
98	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62	10.38	12.00	12.00	12.00	12.00	12.00	12.00	9.00	93.00
99	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$126	$807	$933	$933	$933	$933	$933	$933	$700	$7,229
101	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
102	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$126**	**$807**	**$933**	**$933**	**$933**	**$933**	**$933**	**$933**	**$700**	**$7,229**
103	Capital	$0	$0	$0	$0	$0	$0	$0	$4	$24	$28	$28	$28	$28	$28	$28	$21	$217
104	Expense	$0	$0	$0	$0	$0	$0	$0	$122	$783	$905	$905	$905	$905	$905	$905	$679	$7,012
105	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$0	$167	$1,076	$1,244	$1,244	$1,244	$1,244	$1,244	$1,244	$933	$9,638
106	Exclusivity taken	$0	$0	$0	$0	$0	$0	$0	$42	$269	$311	$311	$311	$311	$311	$311	$233	$2,410
107	Cumulative	$0	$0	$0	$0	$0	$0	$0	$126	$933	$1,865	$2,798	$3,731	$4,664	$5,596	$6,529	$7,229	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
108	Capital benefit, before escalation	$0	$0	$0	$0	$0	$4	$24	$28	$28	$28	$28	$28	$28	$21	$217
109	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$122	$783	$905	$905	$905	$905	$905	$905	$679	$7,012
110	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
111	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
112	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$147**	**$966**	**$1,142**	**$1,167**	**$1,193**	**$1,219**	**$1,245**	**$1,273**	**$975**	**$9,327**
113	Capital benefit, escalated	$0	$0	$0	$0	$0	$4	$29	$34	$35	$36	$36	$37	$38	$29	$279
114	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$143	$937	$1,107	$1,132	$1,157	$1,182	$1,208	$1,235	$946	$9,048
115	Cumulative, escalated	$0	$0	$0	$0	$0	$147	$1,113	$2,255	$3,422	$4,615	$5,834	$7,079	$8,352	$9,327	

116	Peak Annual Benefit, before escalation	$933	The highest year of the before-escalation Capital + Expense rows above.
117	Peak Annual Benefit, Escalated	$1,273	The highest year on the Escalated Annual Benefit row above.
118	Uplift on the highest year	36.44%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AG
Pacific Gas and Electric Company
ERP and GIS Transformation
Corrosion Field Technician - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Corrosion Field Technician

RESULT

	Measure	Amount	Formula
119	**Peak Annual Benefit**	**$933**	**Step 4 combined**
120	**Total Benefit - Life of Project, 2024–2039**	**$7,229**	**Sum of the Step 6 combined row**
121	Capital	$217	Sum of the Step 6 Capital row
122	Expense	$7,012	Sum of the Step 6 Expense row
123	Peak Annual - Capital	$28	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
124	Peak Annual - Expense	$905	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Optimized Backlog, Routing and Work Bundling
Ramp Schedule - Gas Transmission x Corrosion Field Technician
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
125	First month earning benefit	Jul 2031	Apr 2030
126	Month Index	79	0
127	Ramp length (months to full rate)	12	12
128	Benefits stop	Sep 2039	Sep 2039
129	Month Index	177	177
130	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
131	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	1.62
139	2032	0.54	0.62	0.69	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	10.38
140	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
141	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
142	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
143	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
144	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
145	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
146	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
147	**TOTAL**													**93.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
148	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
158	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
161	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
164	**TOTAL**													**0.00**

Workpaper 3-17AH
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

OPERATING AREA DETAIL: Engineer × Electric Transmission & Distribution
External Labor Benefit Walkthrough - Electric Transmission & Distribution x Engineer

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$23,251

STEP 2: Apply Benefit %

		A	*B = Step 1 Amount x A*
	Formula Walkthrough		
	Item	**Rate**	**Amount**
2	Gross benefit	18.33%	$4,263

STEP 3: Apply Confidence Factor

		A	*B*	*C = Step 2 Amount x A x B*
	Formula Walkthrough			
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	30.00%	75.00%	$959

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	54.55%	$523	$44
5	Additional Business Enhancements	45.45%	$436	$36
6	**Combined Peak Annual Benefit**		**$959**	**$80**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transfo	Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2030	Apr 2030
10	Full run-rate reached	Apr 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$44	$36
14	Monthly increment during ramp	$3	$3
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
16 Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
17 Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18 Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$151	$503	$523	$523	$523	$523	$523	$523	$523	$392	$4,708
19 Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$126	$419	$436	$436	$436	$436	$436	$436	$436	$327	$3,924
20 Combined annual benefit	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$277**	**$922**	**$959**	**$959**	**$959**	**$959**	**$959**	**$959**	**$959**	**$719**	**$8,632**
21 Capital	$0	$0	$0	$0	$0	$0	$113	$378	$393	$393	$393	$393	$393	$393	$393	$295	$3,539
22 Expense	$0	$0	$0	$0	$0	$0	$163	$544	$566	$566	$566	$566	$566	$566	$566	$424	$5,093
23 Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$369	$1,230	$1,279	$1,279	$1,279	$1,279	$1,279	$1,279	$1,279	$959	$11,509
24 Exclusivity taken	$0	$0	$0	$0	$0	$0	$92	$307	$320	$320	$320	$320	$320	$320	$320	$240	$2,877
25 Cumulative	$0	$0	$0	$0	$0	$0	$277	$1,199	$2,158	$3,117	$4,076	$5,035	$5,994	$6,954	$7,913	$8,632	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
26 Capital benefit, before escalation	$0	$0	$0	$0	$113	$378	$393	$393	$393	$393	$393	$393	$393	$295	$3,539
27 Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$163	$544	$566	$566	$566	$566	$566	$566	$566	$424	$5,093
28 Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29 Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30 Escalated Annual Benefit	**$0**	**$0**	**$0**	**$0**	**$319**	**$1,084**	**$1,151**	**$1,175**	**$1,200**	**$1,226**	**$1,252**	**$1,278**	**$1,305**	**$1,000**	**$10,990**
31 Capital benefit, escalated	$0	$0	$0	$0	$132	$447	$473	$483	$492	$502	$512	$523	$533	$408	$4,505
32 Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$187	$637	$677	$693	$708	$724	$740	$756	$772	$592	$6,485
33 Cumulative, escalated	$0	$0	$0	$0	$319	$1,403	$2,554	$3,729	$4,929	$6,155	$7,407	$8,685	$9,990	$10,990	

34	Peak Annual Benefit, before escalation	$959	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$1,305	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	36.10%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AH
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$959**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$8,632**	**Sum of the Step 6 combined row**
39	Capital	$3,539	Sum of the Step 6 Capital row
40	Expense	$5,093	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$393	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$566	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - Electric Transmission & Distribution x Engineer
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2030	Apr 2030
44	Month Index	64	64
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
56	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**108.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
73	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
74	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
75	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
76	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
77	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
78	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
79	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
80	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
81	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
82	**TOTAL**													**108.00**

Workpaper 3-17AH
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

OPERATING AREA DETAIL: Engineer × Power Generation
External Labor Benefit Walkthrough - Power Generation x Engineer

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

	Item	Amount
83	Addressable spend (excl. Transformation rows)	$11,716

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
84	Gross benefit	10.00%	$1,172

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
85	Confidence-adjusted benefit	0.00%	75.00%	$0

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
86	Core Enhancements	100.00%	$0	$0
87	Additional Business Enhancements	0.00%	$0	$0
88	**Combined Peak Annual Benefit**		**$0**	**$0**

STEP 5: Ramp Parameters

		Core Enhancements	Additional Business Enhancements
89	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
90	Ramp driven by	GIS	GIS
91	First month earning benefit	Apr 2029	Apr 2030
92	Full run-rate reached	Apr 2030	Apr 2031
93	Ramp length (months)	12	12
94	Ramp steps (length + 1)	13	13
95	Peak monthly benefit (post-exclusivity)	$0	$0
96	Monthly increment during ramp	$0	$0
97	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
98	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
101	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
102	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
103	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
104	Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
105	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
106	Exclusivity taken	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
107	Cumulative	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
108	Capital benefit, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
109	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
110	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
111	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
112	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
113	Capital benefit, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
114	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
115	Cumulative, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

116	Peak Annual Benefit, before escalation	$0	The highest year of the before-escalation Capital + Expense rows above.
117	Peak Annual Benefit, Escalated	$0	The highest year on the Escalated Annual Benefit row above.
118	Uplift on the highest year	0.00%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AH
Pacific Gas and Electric Company
ERP and GIS Transformation
Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Engineer

RESULT

	Measure	Amount	Formula
119	**Peak Annual Benefit**	**$0**	**Step 4 combined**
120	**Total Benefit - Life of Project, 2024–2039**	**$0**	**Sum of the Step 6 combined row**
121	Capital	$0	Sum of the Step 6 Capital row
122	Expense	$0	Sum of the Step 6 Expense row
123	Peak Annual - Capital	$0	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
124	Peak Annual - Expense	$0	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - Power Generation x Engineer
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
125	First month earning benefit	Apr 2029	Apr 2030
126	Month Index	0	0
127	Ramp length (months to full rate)	12	12
128	Benefits stop	Sep 2039	Sep 2039
129	Month Index	177	177
130	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
131	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
143	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	**TOTAL**													**0.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
148	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
158	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
161	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
164	**TOTAL**													**0.00**

Workpaper 3-17AI
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Estimator

OPERATING AREA DETAIL: Estimator × Electric Transmission & Distribution
External Labor Benefit Walkthrough - Electric Transmission & Distribution x Estimator

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$109,385

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	13.33%	$14,585

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	30.00%	75.00%	$3,282

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	37.50%	$1,231	$103
5	Additional Business Enhancements	62.50%	$2,051	$171
6	**Combined Peak Annual Benefit**		**$3,282**	**$273**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2030	Apr 2030
10	Full run-rate reached	Apr 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$103	$171
14	Monthly increment during ramp	$8	$13
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$355	$1,183	$1,231	$1,231	$1,231	$1,231	$1,231	$1,231	$1,231	$923	$11,075
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$592	$1,972	$2,051	$2,051	$2,051	$2,051	$2,051	$2,051	$2,051	$1,538	$18,459
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$947**	**$3,155**	**$3,282**	**$3,282**	**$3,282**	**$3,282**	**$3,282**	**$3,282**	**$3,282**	**$2,461**	**$29,534**
21	Capital	$0	$0	$0	$0	$0	$0	$700	$2,335	$2,428	$2,428	$2,428	$2,428	$2,428	$2,428	$2,428	$1,821	$21,855
22	Expense	$0	$0	$0	$0	$0	$0	$246	$820	$853	$853	$853	$853	$853	$853	$853	$640	$7,679
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$1,262	$4,207	$4,375	$4,375	$4,375	$4,375	$4,375	$4,375	$4,375	$3,282	$39,378
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$316	$1,052	$1,094	$1,094	$1,094	$1,094	$1,094	$1,094	$1,094	$820	$9,845
25	Cumulative	$0	$0	$0	$0	$0	$0	$947	$4,102	$7,383	$10,665	$13,947	$17,228	$20,510	$23,791	$27,073	$29,534	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
26	Capital benefit, before escalation	$0	$0	$0	$0	$700	$2,335	$2,428	$2,428	$2,428	$2,428	$2,428	$2,428	$2,428	$1,821	$21,855
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$246	$820	$853	$853	$853	$853	$853	$853	$853	$640	$7,679
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$1,096**	**$3,721**	**$3,945**	**$4,024**	**$4,107**	**$4,192**	**$4,278**	**$4,367**	**$4,457**	**$3,412**	**$37,597**
31	Capital benefit, escalated	$0	$0	$0	$0	$813	$2,760	$2,924	$2,980	$3,040	$3,101	$3,163	$3,227	$3,292	$2,519	$27,819
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$282	$960	$1,021	$1,044	$1,068	$1,091	$1,115	$1,139	$1,164	$892	$9,778
33	Cumulative, escalated	$0	$0	$0	$0	$1,096	$4,816	$8,761	$12,785	$16,893	$21,084	$25,363	$29,729	$34,186	$37,597	

34	Peak Annual Benefit, before escalation	$3,282	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$4,457	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	35.81%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AI
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Estimator

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$3,282**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$29,534**	**Sum of the Step 6 combined row**
39	Capital	$21,855	Sum of the Step 6 Capital row
40	Expense	$7,679	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$2,428	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$853	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Enhanced Design Management / Drawing Tools
Ramp Schedule - Electric Transmission & Distribution x Estimator
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2030	Apr 2030
44	Month Index	64	64
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
56	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**108.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
73	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
74	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
75	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
76	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
77	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
78	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
79	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
80	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
81	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
82	**TOTAL**													**108.00**

Workpaper 3-17AI
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Estimator

OPERATING AREA DETAIL: Estimator × Power Generation
External Labor Benefit Walkthrough - Power Generation x Estimator

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

	Item	Amount
83	Addressable spend (excl. Transformation rows)	$87

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
84	Gross benefit	9.99%	$9

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
85	Confidence-adjusted benefit	0.00%	75.00%	$0

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
86	Core Enhancements	100.00%	$0	$0
87	Additional Business Enhancements	0.00%	$0	$0
88	**Combined Peak Annual Benefit**		**$0**	**$0**

STEP 5: Ramp Parameters

		Core Enhancements	Additional Business Enhancements
89	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
90	Ramp driven by	GIS	GIS
91	First month earning benefit	Apr 2029	Apr 2030
92	Full run-rate reached	Apr 2030	Apr 2031
93	Ramp length (months)	12	12
94	Ramp steps (length + 1)	13	13
95	Peak monthly benefit (post-exclusivity)	$0	$0
96	Monthly increment during ramp	$0	$0
97	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
98	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
101	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
102	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
103	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
104	Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
105	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
106	Exclusivity taken	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
107	Cumulative	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
108	Capital benefit, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
109	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
110	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
111	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
112	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
113	Capital benefit, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
114	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
115	Cumulative, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

116	Peak Annual Benefit, before escalation	$0	The highest year of the before-escalation Capital + Expense rows above.
117	Peak Annual Benefit, Escalated	$0	The highest year on the Escalated Annual Benefit row above.
118	Uplift on the highest year	0.00%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AI
Pacific Gas and Electric Company
ERP and GIS Transformation
Estimator - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Estimator

RESULT

	Measure	Amount	Formula
119	**Peak Annual Benefit**	**$0**	**Step 4 combined**
120	**Total Benefit - Life of Project, 2024–2039**	**$0**	**Sum of the Step 6 combined row**
121	Capital	$0	Sum of the Step 6 Capital row
122	Expense	$0	Sum of the Step 6 Expense row
123	Peak Annual - Capital	$0	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
124	Peak Annual - Expense	$0	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Enhanced Design Management / Drawing Tools
Ramp Schedule - Power Generation x Estimator
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
125	First month earning benefit	Apr 2029	Apr 2030
126	Month Index	0	0
127	Ramp length (months to full rate)	12	12
128	Benefits stop	Sep 2039	Sep 2039
129	Month Index	177	177
130	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
131	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
143	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	**TOTAL**													**0.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
148	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
158	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
161	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
164	**TOTAL**													**0.00**

Workpaper 3-17AJ
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Distribution Engineering & Design (GDED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Distribution Engineering & Design (GDED) Engineer

OPERATING AREA DETAIL: Gas Distribution Engineering & Design (GDED) Engineer × Gas Distribution
External Labor Benefit Walkthrough - Gas Distribution x Gas Distribution Engineering & Design (GDED) Engineer

STEP 1: Addressable Spend
A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$8,795

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	25.00%	$2,199

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	35.00%	75.00%	$577

STEP 4: Peak Annual Benefit by Component
The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	80.00%	$462	$38
5	Additional Business Enhancements	20.00%	$115	$10
6	**Combined Peak Annual Benefit**		**$577**	**$48**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2029	Apr 2030
10	Full run-rate reached	Apr 2030	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$38	$10
14	Monthly increment during ramp	$3	$1
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit
Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	120.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$133	$444	$462	$462	$462	$462	$462	$462	$462	$462	$346	$4,617
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$33	$111	$115	$115	$115	$115	$115	$115	$115	$87	$1,039
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$133**	**$477**	**$573**	**$577**	**$577**	**$577**	**$577**	**$577**	**$577**	**$577**	**$433**	**$5,656**
21	Capital	$0	$0	$0	$0	$0	$8	$29	$34	$35	$35	$35	$35	$35	$35	$35	$26	$339
22	Expense	$0	$0	$0	$0	$0	$125	$449	$538	$543	$543	$543	$543	$543	$543	$543	$407	$5,317
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$178	$636	$764	$770	$770	$770	$770	$770	$770	$770	$577	$7,541
24	Exclusivity taken	$0	$0	$0	$0	$0	$44	$159	$191	$192	$192	$192	$192	$192	$192	$192	$144	$1,885
25	Cumulative	$0	$0	$0	$0	$0	$133	$610	$1,183	$1,760	$2,337	$2,915	$3,492	$4,069	$4,646	$5,223	$5,656	

STEP 7: Apply Annual Escalation
A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
26	Capital benefit, before escalation	$0	$0	$0	$8	$29	$34	$35	$35	$35	$35	$35	$35	$35	$26	$339
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$125	$449	$538	$543	$543	$543	$543	$543	$543	$543	$407	$5,317
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$150**	**$547**	**$671**	**$691**	**$706**	**$722**	**$738**	**$754**	**$771**	**$787**	**$603**	**$7,141**
31	Capital benefit, escalated	$0	$0	$0	$9	$33	$41	$42	$42	$43	$44	$45	$46	$47	$36	$429
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$141	$514	$630	$649	$664	$679	$694	$709	$725	$740	$567	$6,712
33	Cumulative, escalated	$0	$0	$0	$150	$697	$1,368	$2,059	$2,766	$3,488	$4,226	$4,980	$5,750	$6,538	$7,141	

34	Peak Annual Benefit, before escalation	$577	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$787	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	36.42%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AJ
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Distribution Engineering & Design (GDED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Distribution Engineering & Design (GDED) Engineer

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$577**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$5,656**	**Sum of the Step 6 combined row**
39	Capital	$339	Sum of the Step 6 Capital row
40	Expense	$5,317	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$35	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$543	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - Gas Distribution x Gas Distribution Engineering & Design (GDED) Engineer
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2029	Apr 2030
44	Month Index	52	64
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
55	2030	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
56	2031	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**120.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
73	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
74	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
75	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
76	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
77	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
78	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
79	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
80	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
81	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
82	**TOTAL**													**108.00**

Workpaper 3-17AJ
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Distribution Engineering & Design (GDED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Distribution Engineering & Design (GDED) Engineer

OPERATING AREA DETAIL: Gas Distribution Engineering & Design (GDED) Engineer × Gas Transmission
External Labor Benefit Walkthrough - Gas Transmission x Gas Distribution Engineering & Design (GDED) Engineer

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

	Item	Amount
83	Addressable spend (excl. Transformation rows)	$8,795

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
84	Gross benefit	0.00%	$0

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
85	Confidence-adjusted benefit	25.00%	75.00%	$0

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
86	Core Enhancements	100.00%	$0	$0
87	Additional Business Enhancements	0.00%	$0	$0
88	**Combined Peak Annual Benefit**		**$0**	**$0**

STEP 5: Ramp Parameters

		Core Enhancements	Additional Business Enhancements
89	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
90	Ramp driven by	GIS	GIS
91	First month earning benefit	Apr 2029	Apr 2030
92	Full run-rate reached	Apr 2030	Apr 2031
93	Ramp length (months)	12	12
94	Ramp steps (length + 1)	13	13
95	Peak monthly benefit (post-exclusivity)	$0	$0
96	Monthly increment during ramp	$0	$0
97	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
98	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
101	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
102	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
103	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
104	Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
105	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
106	Exclusivity taken	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
107	Cumulative	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
108	Capital benefit, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
109	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
110	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
111	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
112	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
113	Capital benefit, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
114	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
115	Cumulative, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

116	Peak Annual Benefit, before escalation	$0	The highest year of the before-escalation Capital + Expense rows above.
117	Peak Annual Benefit, Escalated	$0	The highest year on the Escalated Annual Benefit row above.
118	Uplift on the highest year	0.00%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AJ
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Distribution Engineering & Design (GDED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Distribution Engineering & Design (GDED) Engineer

RESULT

	Measure	Amount	Formula
119	**Peak Annual Benefit**	**$0**	**Step 4 combined**
120	**Total Benefit - Life of Project, 2024–2039**	**$0**	**Sum of the Step 6 combined row**
121	Capital	$0	Sum of the Step 6 Capital row
122	Expense	$0	Sum of the Step 6 Expense row
123	Peak Annual - Capital	$0	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
124	Peak Annual - Expense	$0	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): -
Ramp Schedule - Gas Transmission x Gas Distribution Engineering & Design (GDED) Engineer
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
125	First month earning benefit	Apr 2029	Apr 2030
126	Month Index	0	0
127	Ramp length (months to full rate)	12	12
128	Benefits stop	Sep 2039	Sep 2039
129	Month Index	177	177
130	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
131	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
143	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	**TOTAL**													**0.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
148	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
158	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
161	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
164	**TOTAL**													**0.00**

Workpaper 3-17AK
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Transmission Engineering & Design (GTED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Transmission Engineering & Design (GTED) Engineer

OPERATING AREA DETAIL: Gas Transmission Engineering & Design (GTED) Engineer × Gas Distribution
External Labor Benefit Walkthrough - Gas Distribution x Gas Transmission Engineering & Design (GTED) Engineer

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$8,795

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	0.00%	$0

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	25.00%	75.00%	$0

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	100.00%	$0	$0
5	Additional Business Enhancements	0.00%	$0	$0
6	**Combined Peak Annual Benefit**		**$0**	**$0**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2029	Apr 2030
10	Full run-rate reached	Apr 2030	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$0	$0
14	Monthly increment during ramp	$0	$0
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**TOTAL**
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
21	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Cumulative	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
26	Capital benefit, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
31	Capital benefit, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
33	Cumulative, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

34	Peak Annual Benefit, before escalation	$0	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$0	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	0.00%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AK
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Transmission Engineering & Design (GTED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Transmission Engineering & Design (GTED) Engineer

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$0**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$0**	**Sum of the Step 6 combined row**
39	Capital	$0	Sum of the Step 6 Capital row
40	Expense	$0	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$0	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$0	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): -
Ramp Schedule - Gas Distribution x Gas Transmission Engineering & Design (GTED) Engineer
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2029	Apr 2030
44	Month Index	0	0
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements
A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
62	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	**TOTAL**													**0.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements
A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	**TOTAL**													**0.00**

Workpaper 3-17AK
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Transmission Engineering & Design (GTED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Transmission Engineering & Design (GTED) Engineer

OPERATING AREA DETAIL: Gas Transmission Engineering & Design (GTED) Engineer × Gas Transmission
External Labor Benefit Walkthrough - Gas Transmission x Gas Transmission Engineering & Design (GTED) Engineer

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

	Item	Amount
83	Addressable spend (excl. Transformation rows)	$8,795

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
84	Gross benefit	25.00%	$2,199

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
85	Confidence-adjusted benefit	30.00%	75.00%	$495

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
86	Core Enhancements	80.00%	$396	$33
87	Additional Business Enhancements	20.00%	$99	$8
88	**Combined Peak Annual Benefit**		**$495**	**$41**

STEP 5: Ramp Parameters

		Core Enhancements	Additional Business Enhancements
89	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
90	Ramp driven by	GIS	GIS
91	First month earning benefit	Apr 2029	Apr 2030
92	Full run-rate reached	Apr 2030	Apr 2031
93	Ramp length (months)	12	12
94	Ramp steps (length + 1)	13	13
95	Peak monthly benefit (post-exclusivity)	$33	$8
96	Monthly increment during ramp	$3	$1
97	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
98	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	120.00
99	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
100	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$114	$381	$396	$396	$396	$396	$396	$396	$396	$396	$297	$3,958
101	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$29	$95	$99	$99	$99	$99	$99	$99	$99	$74	$890
102	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$114**	**$409**	**$491**	**$495**	**$495**	**$495**	**$495**	**$495**	**$495**	**$495**	**$371**	**$4,848**
103	Capital	$0	$0	$0	$0	$0	$7	$25	$29	$30	$30	$30	$30	$30	$30	$30	$22	$291
104	Expense	$0	$0	$0	$0	$0	$107	$385	$461	$465	$465	$465	$465	$465	$465	$465	$349	$4,557
105	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$152	$545	$655	$660	$660	$660	$660	$660	$660	$660	$495	$6,464
106	Exclusivity taken	$0	$0	$0	$0	$0	$38	$136	$164	$165	$165	$165	$165	$165	$165	$165	$124	$1,616
107	Cumulative	$0	$0	$0	$0	$0	$114	$523	$1,014	$1,509	$2,004	$2,498	$2,993	$3,488	$3,982	$4,477	$4,848	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
108	Capital benefit, before escalation	$0	$0	$0	$7	$25	$29	$30	$30	$30	$30	$30	$30	$30	$22	$291
109	Expense benefit incl. NEE, before escalation	$0	$0	$0	$107	$385	$461	$465	$465	$465	$465	$465	$465	$465	$349	$4,557
110	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
111	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
112	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$128**	**$469**	**$575**	**$592**	**$606**	**$619**	**$633**	**$646**	**$660**	**$675**	**$517**	**$6,121**
113	Capital benefit, escalated	$0	$0	$0	$8	$29	$35	$36	$36	$37	$38	$39	$39	$40	$31	$368
114	Expense benefit incl. NEE, escalated	$0	$0	$0	$120	$441	$540	$557	$569	$582	$595	$608	$621	$635	$486	$5,753
115	Cumulative, escalated	$0	$0	$0	$128	$598	$1,173	$1,765	$2,370	$2,990	$3,622	$4,269	$4,929	$5,604	$6,121	

116	Peak Annual Benefit, before escalation	$495	The highest year of the before-escalation Capital + Expense rows above.
117	Peak Annual Benefit, Escalated	$675	The highest year on the Escalated Annual Benefit row above.
118	Uplift on the highest year	36.42%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AK
Pacific Gas and Electric Company
ERP and GIS Transformation
Gas Transmission Engineering & Design (GTED) Engineer - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Gas Transmission Engineering & Design (GTED) Engineer

RESULT

	Measure	Amount	Formula
119	**Peak Annual Benefit**	**$495**	**Step 4 combined**
120	**Total Benefit - Life of Project, 2024–2039**	**$4,848**	**Sum of the Step 6 combined row**
121	Capital	$291	Sum of the Step 6 Capital row
122	Expense	$4,557	Sum of the Step 6 Expense row
123	Peak Annual - Capital	$30	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
124	Peak Annual - Expense	$465	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - Gas Transmission x Gas Transmission Engineering & Design (GTED) Engineer
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
125	First month earning benefit	Apr 2029	Apr 2030
126	Month Index	52	64
127	Ramp length (months to full rate)	12	12
128	Benefits stop	Sep 2039	Sep 2039
129	Month Index	177	177
130	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
131	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	2029	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
137	2030	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
138	2031	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
139	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
140	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
141	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
142	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
143	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
144	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
145	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
146	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
147	**TOTAL**													**120.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
148	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
155	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
156	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
157	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
158	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
159	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
160	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
161	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
162	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
163	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
164	**TOTAL**													**108.00**

Workpaper 3-17AL
Pacific Gas and Electric Company
ERP and GIS Transformation
LEAPS Specialist (Biology, Cultural, Environment) - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	LEAPS Specialist (Biology, Cultural, Environment)

OPERATING AREA DETAIL: LEAPS Specialist (Biology, Cultural, Environment) × LEAPS
External Labor Benefit Walkthrough - LEAPS x LEAPS Specialist (Biology, Cultural, Environment)

STEP 1: Addressable Spend
A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$0

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	0.00%	$0

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	35.00%	75.00%	$0

STEP 4: Peak Annual Benefit by Component
The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	100.00%	$0	$0
5	Additional Business Enhancements	0.00%	$0	$0
6	**Combined Peak Annual Benefit**		**$0**	**$0**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2030	Apr 2030
10	Full run-rate reached	Apr 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$0	$0
14	Monthly increment during ramp	$0	$0
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit
Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
21	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Cumulative	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

STEP 7: Apply Annual Escalation
A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
26	Capital benefit, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
31	Capital benefit, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
33	Cumulative, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

34	Peak Annual Benefit, before escalation	$0	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$0	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	0.00%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AL
Pacific Gas and Electric Company
ERP and GIS Transformation
LEAPS Specialist (Biology, Cultural, Environment) - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	LEAPS Specialist (Biology, Cultural, Environment)

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$0**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$0**	**Sum of the Step 6 combined row**
39	Capital	$0	Sum of the Step 6 Capital row
40	Expense	$0	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$0	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$0	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - LEAPS x LEAPS Specialist (Biology, Cultural, Environment)
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2030	Apr 2030
44	Month Index	0	0
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
62	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	**TOTAL**													**0.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	**TOTAL**													**0.00**

Workpaper 3-17AM
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Planner - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Planner

OPERATING AREA DETAIL: Land Planner × Land, Environmental & Permitting Services (LEAPS)
External Labor Benefit Walkthrough - Land, Environmental & Permitting Services (LEAPS) x Land Planner

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$121,012

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	25.00%	$30,253

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	30.00%	75.00%	$6,807

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	100.00%	$6,807	$567
5	Additional Business Enhancements	0.00%	$0	$0
6	**Combined Peak Annual Benefit**		**$6,807**	**$567**

STEP 5: Ramp Parameters

		Core Enhancements	Additional Business Enhancements
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2030	Apr 2030
10	Full run-rate reached	Apr 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$567	$0
14	Monthly increment during ramp	$44	$0
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$1,964	$6,545	$6,807	$6,807	$6,807	$6,807	$6,807	$6,807	$6,807	$5,105	$61,263
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,964**	**$6,545**	**$6,807**	**$6,807**	**$6,807**	**$6,807**	**$6,807**	**$6,807**	**$6,807**	**$5,105**	**$61,263**
21	Capital	$0	$0	$0	$0	$0	$0	$236	$785	$817	$817	$817	$817	$817	$817	$817	$613	$7,352
22	Expense	$0	$0	$0	$0	$0	$0	$1,728	$5,760	$5,990	$5,990	$5,990	$5,990	$5,990	$5,990	$5,990	$4,493	$53,911
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$2,618	$8,727	$9,076	$9,076	$9,076	$9,076	$9,076	$9,076	$9,076	$6,807	$81,683
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$655	$2,182	$2,269	$2,269	$2,269	$2,269	$2,269	$2,269	$2,269	$1,702	$20,421
25	Cumulative	$0	$0	$0	$0	$0	$0	$1,964	$8,509	$15,316	$22,123	$28,930	$35,736	$42,543	$49,350	$56,157	$61,263	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
26	Capital benefit, before escalation	$0	$0	$0	$0	$236	$785	$817	$817	$817	$817	$817	$817	$817	$613	$7,352
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$1,728	$5,760	$5,990	$5,990	$5,990	$5,990	$5,990	$5,990	$5,990	$4,493	$53,911
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$2,254**	**$7,671**	**$8,154**	**$8,334**	**$8,519**	**$8,703**	**$8,892**	**$9,085**	**$9,282**	**$7,113**	**$78,007**
31	Capital benefit, escalated	$0	$0	$0	$0	$274	$928	$983	$1,002	$1,022	$1,043	$1,064	$1,086	$1,107	$847	$9,358
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$1,981	$6,742	$7,171	$7,331	$7,497	$7,660	$7,828	$7,999	$8,175	$6,265	$68,649
33	Cumulative, escalated	$0	$0	$0	$0	$2,254	$9,925	$18,079	$26,413	$34,932	$43,635	$52,527	$61,612	$70,894	$78,007	

34	Peak Annual Benefit, before escalation	$6,807	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$9,282	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	36.36%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AM
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Planner - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Planner

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$6,807**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$61,263**	**Sum of the Step 6 combined row**
39	Capital	$7,352	Sum of the Step 6 Capital row
40	Expense	$53,911	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$817	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$5,990	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - Land, Environmental & Permitting Services (LEAPS) x Land Planner
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2030	Apr 2030
44	Month Index	64	0
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
56	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**108.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	**TOTAL**													**0.00**

Workpaper 3-17AN
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Technician - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Technician

OPERATING AREA DETAIL: Land Technician × Land, Environmental & Permitting Services (LEAPS)
External Labor Benefit Walkthrough - Land, Environmental & Permitting Services (LEAPS) x Land Technician

STEP 1: Addressable Spend
A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$31,138

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	15.00%	$4,671

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	35.00%	75.00%	$1,226

STEP 4: Peak Annual Benefit by Component
The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	100.00%	$1,226	$102
5	Additional Business Enhancements	0.00%	$0	$0
6	**Combined Peak Annual Benefit**		**$1,226**	**$102**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	ERP	ERP
9	First month earning benefit	Jul 2030	Apr 2030
10	Full run-rate reached	Jul 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$102	$0
14	Monthly increment during ramp	$8	$0
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit
Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	TOTAL
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	1.62	10.38	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	105.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$165	$1,061	$1,226	$1,226	$1,226	$1,226	$1,226	$1,226	$1,226	$920	$10,728
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$165**	**$1,061**	**$1,226**	**$1,226**	**$1,226**	**$1,226**	**$1,226**	**$1,226**	**$1,226**	**$920**	**$10,728**
21	Capital	$0	$0	$0	$0	$0	$0	$23	$149	$172	$172	$172	$172	$172	$172	$172	$129	$1,502
22	Expense	$0	$0	$0	$0	$0	$0	$142	$912	$1,054	$1,054	$1,054	$1,054	$1,054	$1,054	$1,054	$791	$9,226
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$220	$1,415	$1,635	$1,635	$1,635	$1,635	$1,635	$1,635	$1,635	$1,226	$14,304
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$55	$354	$409	$409	$409	$409	$409	$409	$409	$307	$3,576
25	Cumulative	$0	$0	$0	$0	$0	$0	$165	$1,226	$2,452	$3,678	$4,904	$6,130	$7,356	$8,582	$9,808	$10,728	

STEP 7: Apply Annual Escalation
A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
26	Capital benefit, before escalation	$0	$0	$0	$0	$23	$149	$172	$172	$172	$172	$172	$172	$172	$129	$1,502
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$142	$912	$1,054	$1,054	$1,054	$1,054	$1,054	$1,054	$1,054	$791	$9,226
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$190**	**$1,244**	**$1,469**	**$1,501**	**$1,534**	**$1,568**	**$1,602**	**$1,636**	**$1,672**	**$1,281**	**$13,696**
31	Capital benefit, escalated	$0	$0	$0	$0	$27	$176	$207	$211	$215	$219	$224	$228	$233	$178	$1,916
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$163	$1,068	$1,262	$1,290	$1,320	$1,348	$1,378	$1,408	$1,439	$1,103	$11,779
33	Cumulative, escalated	$0	$0	$0	$0	$190	$1,433	$2,902	$4,403	$5,938	$7,505	$9,107	$10,743	$12,415	$13,696	

34	Peak Annual Benefit, before escalation	$1,226	The highest year of the before-escalation Capital + Expense rows above.
35	Peak Annual Benefit, Escalated	$1,672	The highest year on the Escalated Annual Benefit row above.
36	Uplift on the highest year	36.34%	The % increase of peak annual benefit due to escalation.

Workpaper 3-17AN
Pacific Gas and Electric Company
ERP and GIS Transformation
Land Technician - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Land Technician

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$1,226**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$10,728**	**Sum of the Step 6 combined row**
39	Capital	$1,502	Sum of the Step 6 Capital row
40	Expense	$9,226	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$172	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$1,054	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Consolidated GIS Data Retrieval
Ramp Schedule - Land, Environmental & Permitting Services (LEAPS) x Land Technician
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Jul 2030	Apr 2030
44	Month Index	67	0
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	1.62
56	2031	0.54	0.62	0.69	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	10.38
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**105.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	**TOTAL**													**0.00**

Workpaper 3-17AO
Pacific Gas and Electric Company
ERP and GIS Transformation
Planner - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planner

OPERATING AREA DETAIL: Planner × Land, Environmental & Permitting Services (LEAPS)
External Labor Benefit Walkthrough - Land, Environmental & Permitting Services (LEAPS) x Planner

STEP 1: Addressable Spend

A single spend figure per Operating Area × Persona - contractor spend attributed to the work this persona performs. No Direct Time / Mgmt OH / Benefits OH buildup: contractor rates already carry the vendor's own overhead.

Line No.	Item	Amount
1	Addressable spend (excl. Transformation rows)	$193,375

STEP 2: Apply Benefit %

	Formula Walkthrough	*A*	*B = Step 1 Amount x A*
	Item	**Rate**	**Amount**
2	Gross benefit	15.00%	$29,006

STEP 3: Apply Confidence Factor

	Formula Walkthrough	*A*	*B*	*C = Step 2 Amount x A x B*
	Item	**Realization Rate %**	**Exclusivity %**	**Amount**
3	Confidence-adjusted benefit	30.00%	75.00%	$6,526

STEP 4: Peak Annual Benefit by Component

The net benefit is split into its two components using the share from Workpaper 3-17AX, section D.

	Formula Walkthrough	*A*	*B = Step 3 Amount x A*	*C = B / 12*
	Component	**Share**	**Peak Annual**	**Peak Monthly**
4	Core Enhancements	100.00%	$6,526	$544
5	Additional Business Enhancements	0.00%	$0	$0
6	**Combined Peak Annual Benefit**		**$6,526**	**$544**

STEP 5: Ramp Parameters

		Core Enhancements	**Additional Business Enhancements**
7	Sub-Release(s)	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom,	Power Generation (PGEN), Enterprise, Gas, Electric, Telecom, Transformation
8	Ramp driven by	GIS	GIS
9	First month earning benefit	Apr 2030	Apr 2030
10	Full run-rate reached	Apr 2031	Apr 2031
11	Ramp length (months)	12	12
12	Ramp steps (length + 1)	13	13
13	Peak monthly benefit (post-exclusivity)	$544	$0
14	Monthly increment during ramp	$42	$0
15	Benefits stop	Sep 2039	Sep 2039

STEP 6: Year-by-Year Annual Benefit

Months earned come from the Ramp Schedule section of this workpaper, derived from the published start, max-reached and stop dates. Each dollar figure is Peak Monthly (Step 4) × months earned.

	Line	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**TOTAL**
16	Core Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	3.46	11.54	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	108.00
17	Additional Business Enhancements - full-rate months earned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Core Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$1,883	$6,275	$6,526	$6,526	$6,526	$6,526	$6,526	$6,526	$6,526	$4,895	$58,738
19	Additional Business Enhancements annual benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**Combined annual benefit**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,883**	**$6,275**	**$6,526**	**$6,526**	**$6,526**	**$6,526**	**$6,526**	**$6,526**	**$6,526**	**$4,895**	**$58,738**
21	Capital	$0	$0	$0	$0	$0	$0	$169	$565	$587	$587	$587	$587	$587	$587	$587	$441	$5,286
22	Expense	$0	$0	$0	$0	$0	$0	$1,713	$5,711	$5,939	$5,939	$5,939	$5,939	$5,939	$5,939	$5,939	$4,454	$53,451
23	Combined, pre-exclusivity	$0	$0	$0	$0	$0	$0	$2,510	$8,367	$8,702	$8,702	$8,702	$8,702	$8,702	$8,702	$8,702	$6,526	$78,317
24	Exclusivity taken	$0	$0	$0	$0	$0	$0	$628	$2,092	$2,175	$2,175	$2,175	$2,175	$2,175	$2,175	$2,175	$1,632	$19,579
25	Cumulative	$0	$0	$0	$0	$0	$0	$1,883	$8,158	$14,684	$21,211	$27,737	$34,264	$40,790	$47,317	$53,843	$58,738	

STEP 7: Apply Annual Escalation

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-17AW, section F.

	Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
26	Capital benefit, before escalation	$0	$0	$0	$0	$169	$565	$587	$587	$587	$587	$587	$587	$587	$441	$5,286
27	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$1,713	$5,711	$5,939	$5,939	$5,939	$5,939	$5,939	$5,939	$5,939	$4,454	$53,451
28	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
29	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
30	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$2,160**	**$7,353**	**$7,817**	**$7,989**	**$8,168**	**$8,345**	**$8,526**	**$8,712**	**$8,901**	**$6,821**	**$74,793**
31	Capital benefit, escalated	$0	$0	$0	$0	$197	$668	$707	$721	$735	$750	$765	$781	$796	$609	$6,729
32	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$1,964	$6,685	$7,109	$7,269	$7,433	$7,595	$7,761	$7,931	$8,105	$6,212	$68,064
33	Cumulative, escalated	$0	$0	$0	$0	$2,160	$9,513	$17,330	$25,319	$33,487	$41,832	$50,359	$59,070	$67,972	$74,793	
34	Peak Annual Benefit, before escalation	$6,526	The highest year of the before-escalation Capital + Expense rows above.													
35	Peak Annual Benefit, Escalated	$8,901	The highest year on the Escalated Annual Benefit row above.													
36	Uplift on the highest year	36.39%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-17AO
Pacific Gas and Electric Company
ERP and GIS Transformation
Planner - External Labor Benefit Walkthrough
(Thousands of Dollars - Escalated)

Benefit Category	Asset Reliability and Work Execution Effectiveness
Value Driver	Modernized GIS Technology
Role	Planner

RESULT

	Measure	Amount	Formula
37	**Peak Annual Benefit**	**$6,526**	**Step 4 combined**
38	**Total Benefit - Life of Project, 2024–2039**	**$58,738**	**Sum of the Step 6 combined row**
39	Capital	$5,286	Sum of the Step 6 Capital row
40	Expense	$53,451	Sum of the Step 6 Expense row
41	Peak Annual - Capital	$587	Peak Annual Benefit × Capital % (Workpaper 3-17AX, section C)
42	Peak Annual - Expense	$5,939	Peak Annual Benefit × Expense % (Workpaper 3-17AX, section C)

Value Driver(s): Advanced Network Modeling and Simulation
Ramp Schedule - Land, Environmental & Permitting Services (LEAPS) x Planner
Monthly ramp fractions, computed from the parameters below.

A. BASE PARAMETERS

		Core Enhancements	Additional Business Enhancements
43	First month earning benefit	Apr 2030	Apr 2030
44	Month Index	64	0
45	Ramp length (months to full rate)	12	12
46	Benefits stop	Sep 2039	Sep 2039
47	Month Index	177	177
48	**Ramp divisor (ramp length + 1)**	**13**	**13**

B1. MONTHLY RAMP FRACTION - Core Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
49	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	2030	0.00	0.00	0.00	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	3.46
56	2031	0.77	0.85	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11.54
57	2032	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
58	2033	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
59	2034	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
60	2035	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
61	2036	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
62	2037	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
63	2038	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
64	2039	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	9.00
65	**TOTAL**													**108.00**

B2. MONTHLY RAMP FRACTION - Additional Business Enhancements

A value of 1.00 means that month earns the full monthly run-rate; a fraction means the month is still ramping; 0 means outside the active window.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months earned
66	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	**TOTAL**													**0.00**

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Assumptions & Reference Rates - Internal Labor
(Thousands of Dollars - Escalated)

A. EXCLUSIVITY % BY ROLE

Line No.	Role	Combined Exclusivity %	Exclusivity % - Capital	Exclusivity % - Expense Incl. NEE
1	Asset Knowledge Manager	75.00%	75.00%	75.00%
2	Asset Strategy	75.00%	75.00%	75.00%
3	Control Center	75.00%	75.00%	75.00%
4	Corrosion Engineering	75.00%	75.00%	75.00%
5	Corrosion Field Technician	75.00%	75.00%	75.00%
6	Distribution Integrity Management Program (DIMP) Engineers	75.00%	75.00%	75.00%
7	Distribution Integrity Management Program (DIMP) GIS Technician	75.00%	75.00%	75.00%
8	Electric Substation - Asset Strategy	75.00%	75.00%	75.00%
9	Electric Substation - Engineer	75.00%	75.00%	75.00%
10	Electric Substation - Project Engineer	75.00%	75.00%	75.00%
11	Engineer	75.00%	75.00%	75.00%
12	Estimator	75.00%	75.00%	75.00%
13	FIMP Engineers & Technicians	75.00%	75.00%	75.00%
14	Field Engineer	75.00%	75.00%	75.00%
15	Gas Distribution Engineering & Design (GDED) Engineer	75.00%	75.00%	75.00%
16	Gas Project & Outage Management (GPOM)	75.00%	75.00%	75.00%
17	Gas Transmission Engineering & Design (GTED) Engineer	75.00%	75.00%	75.00%
18	LEAPS Specialist (Biology, Cultural, Environment)	75.00%	75.00%	75.00%
19	Land Agent/Consultant	75.00%	75.00%	75.00%
20	Land Planner	75.00%	75.00%	75.00%
21	Land Technician	75.00%	75.00%	75.00%
22	Planner	75.00%	75.00%	75.00%
23	Planning Engineer	75.00%	75.00%	75.00%
24	Project Engineer	75.00%	75.00%	75.00%
25	Right of Way / Natural Resource Management	75.00%	75.00%	75.00%
26	System Operator	75.00%	75.00%	75.00%
27	Transmission Integrity Management Program (TIMP) Engineer	75.00%	75.00%	75.00%
28	Transmission Integrity Management Program (TIMP) GIS Technician	75.00%	75.00%	75.00%
29	Telecomm Field Worker	75.00%	75.00%	75.00%
30	Telecomm Product Owner	75.00%	75.00%	75.00%

B. IMPROVEMENT RANGE %[1] BY ROLE AND OPERATING AREA

	Role	Operating Area	Improvement Range %
31	Asset Knowledge Manager	Electric Transmission & Distribution	18.33%
32	Asset Knowledge Manager	Gas Transmission & Distribution	10.00%
33	Asset Strategy	Electric Transmission & Distribution	18.33%
34	Control Center	Gas Transmission & Distribution	10.00%
35	Corrosion Engineering	Gas Transmission & Distribution	18.33%
36	Corrosion Field Technician	Gas Transmission & Distribution	28.33%
37	Distribution Integrity Management Program (DIMP) Engineers	Gas Distribution	25.00%
38	Distribution Integrity Management Program (DIMP) GIS Technician	Gas Distribution	20.00%
39	Electric Substation - Asset Strategy	Electric Transmission & Distribution	20.00%
40	Electric Substation - Engineer	Electric Transmission	20.00%
41	Electric Substation - Project Engineer	Electric Transmission	25.00%
42	Engineer	Electric Distribution	16.67%
43	Engineer	Electric Transmission	18.33%
44	Engineer	Electric Transmission & Distribution	18.33%
45	Engineer	Power Generation	10.00%
46	Estimator	Electric Transmission & Distribution	13.33%
47	Estimator	Gas Transmission & Distribution	13.33%
48	FIMP Engineers & Technicians	Gas Transmission & Distribution	35.00%
49	Field Engineer	Electric Transmission & Distribution	15.00%
50	Field Engineer	Gas Transmission & Distribution	0.00%
51	Gas Distribution Engineering & Design (GDED) Engineer	Gas Distribution	25.00%
52	Gas Project & Outage Management (GPOM)	Gas Transmission & Distribution	5.00%
53	Gas Transmission Engineering & Design (GTED) Engineer	Gas Transmission	25.00%
54	LEAPS Specialist (Biology, Cultural, Environment)	LEAPS	15.00%
55	Land Agent/Consultant	Land, Environmental & Permitting Services (LEAPS)	15.00%
56	Land Planner	Land, Environmental & Permitting Services (LEAPS)	25.00%
57	Land Technician	Land, Environmental & Permitting Services (LEAPS)	15.00%
58	Planner	Land, Environmental & Permitting Services (LEAPS)	15.00%
59	Planning Engineer	Electric Distribution	15.00%
60	Planning Engineer	Electric Transmission	21.67%
61	Planning Engineer	Gas Transmission & Distribution	10.00%
62	Planning Engineer	Power Generation	10.00%
63	Project Engineer	Electric Distribution	20.00%
64	Project Engineer	Electric Transmission	21.67%
65	Right of Way / Natural Resource Management	Land, Environmental & Permitting Services (LEAPS)	15.00%
66	System Operator	Electric Distribution	10.00%
67	System Operator	Electric Transmission	16.67%
68	Transmission Integrity Management Program (TIMP) Engineer	Gas Transmission	35.00%
69	Transmission Integrity Management Program (TIMP) GIS Technician	Gas Transmission	20.00%
70	Telecomm Field Worker	Telecommunications	6.67%
71	Telecomm Product Owner	Telecommunications	8.33%

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

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C. CONFIDENCE FACTOR BY ROLE AND OPERATING AREA

	Role	Operating Area	Direct Time (Direct Time) Confidence %	Mgmt OH + Benefits OH (Mgmt + Benefits OH) Confidence %
72	Asset Knowledge Manager	Electric Transmission & Distribution	55.00%	30.00%
73	Asset Knowledge Manager	Gas Transmission & Distribution	60.00%	35.00%
74	Asset Strategy	Electric Transmission & Distribution	55.00%	30.00%
75	Control Center	Gas Transmission & Distribution	55.00%	30.00%
76	Corrosion Engineering	Gas Transmission & Distribution	65.00%	40.00%
77	Corrosion Field Technician	Gas Transmission & Distribution	65.00%	40.00%
78	Distribution Integrity Management Program (DIMP) Engineers	Gas Distribution	50.00%	25.00%
79	Distribution Integrity Management Program (DIMP) GIS Technician	Gas Distribution	50.00%	25.00%
80	Electric Substation - Asset Strategy	Electric Transmission & Distribution	55.00%	30.00%
81	Electric Substation - Engineer	Electric Transmission	60.00%	35.00%
82	Electric Substation - Project Engineer	Electric Transmission	60.00%	35.00%
83	Engineer	Electric Distribution	55.00%	30.00%
84	Engineer	Electric Transmission	60.00%	35.00%
85	Engineer	Electric Transmission & Distribution	55.00%	30.00%
86	Engineer	Power Generation	0.00%	0.00%
87	Estimator	Electric Transmission & Distribution	55.00%	30.00%
88	Estimator	Gas Transmission & Distribution	55.00%	30.00%
89	FIMP Engineers & Technicians	Gas Transmission & Distribution	60.00%	35.00%
90	Field Engineer	Electric Transmission & Distribution	60.00%	35.00%
91	Field Engineer	Gas Transmission & Distribution	60.00%	35.00%
92	Gas Distribution Engineering & Design (GDED) Engineer	Gas Distribution	60.00%	35.00%
93	Gas Project & Outage Management (GPOM)	Gas Transmission & Distribution	60.00%	35.00%
94	Gas Transmission Engineering & Design (GTED) Engineer	Gas Transmission	55.00%	30.00%
95	LEAPS Specialist (Biology, Cultural, Environment)	LEAPS	60.00%	35.00%
96	Land Agent/Consultant	Land, Environmental & Permitting Services (LEAPS)	60.00%	35.00%
97	Land Planner	Land, Environmental & Permitting Services (LEAPS)	55.00%	30.00%
98	Land Technician	Land, Environmental & Permitting Services (LEAPS)	60.00%	35.00%
99	Planner	Land, Environmental & Permitting Services (LEAPS)	55.00%	30.00%
100	Planning Engineer	Electric Distribution	60.00%	35.00%
101	Planning Engineer	Electric Transmission	60.00%	35.00%
102	Planning Engineer	Gas Transmission & Distribution	60.00%	35.00%
103	Planning Engineer	Power Generation	0.00%	0.00%
104	Project Engineer	Electric Distribution	60.00%	35.00%
105	Project Engineer	Electric Transmission	60.00%	35.00%
106	Right of Way / Natural Resource Management	Land, Environmental & Permitting Services (LEAPS)	55.00%	30.00%
107	System Operator	Electric Distribution	65.00%	40.00%
108	System Operator	Electric Transmission	55.00%	30.00%
109	Transmission Integrity Management Program (TIMP) Engineer	Gas Transmission	65.00%	40.00%
110	Transmission Integrity Management Program (TIMP) GIS Technician	Gas Transmission	65.00%	40.00%
111	Telecomm Field Worker	Telecommunications	60.00%	35.00%
112	Telecomm Product Owner	Telecommunications	55.00%	30.00%

D. ESCALATION BASIS

The calculation in this workpaper is in nominal dollars of the year the benefit is earned. A benefit earned in a given year is multiplied by the cumulative rate for that year and cost type. Capital and expense escalate at different rates, and internal labour expense escalates faster than other expense.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
113	Capital, all benefit types	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183
114	Expense, internal labor	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976
115	Non-earnings expense, internal labor	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976
116	Expense, all other benefit types	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580
117	Non-earnings expense, all other benefit types	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580

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A. ROLE / OPERATING AREA RATES

Line No.	Role	Operating Area	Improvement Range %
1	Corrosion Field Technician	Gas Distribution	20.00%
2	Corrosion Field Technician	Gas Transmission	20.00%
3	Engineer	Electric Transmission & Distribution	18.33%
4	Engineer	Power Generation	10.00%
5	Estimator	Electric Transmission & Distribution	13.33%
6	Estimator	Power Generation	9.99%
7	Gas Distribution Engineering & Design (GDED) Engineer	Gas Distribution	25.00%
8	Gas Distribution Engineering & Design (GDED) Engineer	Gas Transmission	0.00%
9	Gas Transmission Engineering & Design (GTED) Engineer	Gas Distribution	0.00%
10	Gas Transmission Engineering & Design (GTED) Engineer	Gas Transmission	25.00%
11	LEAPS Specialist (Biology, Cultural, Environment)	LEAPS	0.00%
12	Land Planner	Land, Environmental & Permitting Services (LEAPS)	25.00%
13	Land Technician	Land, Environmental & Permitting Services (LEAPS)	15.00%
14	Planner	Land, Environmental & Permitting Services (LEAPS)	15.00%

B. CONFIDENCE FACTOR BY ROLE AND OPERATING AREA

	Role	Operating Area	Phase 0 Confidence	ED Confidence	Value Lever Adjustment	ERP Persona Adjustment	Final Confidence Factor
15	Corrosion Field Technician	Gas Distribution	25.00%	5.00%	5.00%	0.00%	35.00%
16	Corrosion Field Technician	Gas Transmission	25.00%	5.00%	10.00%	0.00%	40.00%
17	Engineer	Electric Transmission & Distribution	25.00%	5.00%	0.00%	0.00%	30.00%
18	Engineer	Power Generation	25.00%	0.00%	-25.00%	0.00%	0.00%
19	Estimator	Electric Transmission & Distribution	25.00%	5.00%	0.00%	0.00%	30.00%
20	Estimator	Power Generation	25.00%	0.00%	-25.00%	0.00%	0.00%
21	Gas Distribution Engineering & Design (GDED) Engineer	Gas Distribution	25.00%	5.00%	5.00%	0.00%	35.00%
22	Gas Distribution Engineering & Design (GDED) Engineer	Gas Transmission	25.00%	0.00%	0.00%	0.00%	25.00%
23	Gas Transmission Engineering & Design (GTED) Engineer	Gas Distribution	25.00%	0.00%	0.00%	0.00%	25.00%
24	Gas Transmission Engineering & Design (GTED) Engineer	Gas Transmission	25.00%	5.00%	0.00%	0.00%	30.00%
25	LEAPS Specialist (Biology, Cultural, Environment)	LEAPS	25.00%	0.00%	10.00%	0.00%	35.00%
26	Land Planner	Land, Environmental & Permitting Services (LEAPS)	25.00%	0.00%	5.00%	0.00%	30.00%
27	Land Technician	Land, Environmental & Permitting Services (LEAPS)	25.00%	0.00%	10.00%	0.00%	35.00%
28	Planner	Land, Environmental & Permitting Services (LEAPS)	25.00%	0.00%	5.00%	0.00%	30.00%

Corrosion Field Technician × Gas Distribution
Assumptions & Reference Rates - Gas Distribution x Corrosion Field Technician

A. BENEFIT PERCENTAGE

		Value	Source
29	Benefit % (Core Enhancements + Additional Business Enhancements)	20.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
30	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
31	ED Confidence	5.00%	Enterprise Design confidence overlay
32	Value Lever Adjustment	5.00%	Strength of this persona's value lever
33	ERP Persona Adjustment	0.00%	
34	**Final Confidence Factor - EL**	**35.00%**	**Sum of the components above, floored at 0%**
35	Exclusivity %	75.00%	
36	Discount factor for double-counting	0.00%	

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C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
37	Capital %	3.00%	
38	**Expense %**	**97.00%**	**1 − Capital %**

Non-earnings expense is reported within Expense, as it is an expense category.

D. COMPONENT SPLIT

		Value	Source
39	Core Enhancements share of peak benefit	100.00%	
40	**Additional Business Enhancements share**	**0.00%**	**Derived**

Corrosion Field Technician × Gas Transmission

Assumptions & Reference Rates - Gas Transmission x Corrosion Field Technician

A. BENEFIT PERCENTAGE

		Value	Source
41	Benefit % (Core Enhancements + Additional Business Enhancements)	20.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
42	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
43	ED Confidence	5.00%	Enterprise Design confidence overlay
44	Value Lever Adjustment	10.00%	Strength of this persona's value lever
45	ERP Persona Adjustment	0.00%	
46	**Final Confidence Factor - EL**	**40.00%**	**Sum of the components above, floored at 0%**
47	Exclusivity %	75.00%	
48	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
49	Capital %	3.00%	
50	**Expense %**	**97.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
51	Core Enhancements share of peak benefit	100.00%	
52	**Additional Business Enhancements share**	**0.00%**	**Derived**

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Engineer × Electric Transmission & Distribution

Assumptions & Reference Rates - Electric Transmission & Distribution x Engineer

A. BENEFIT PERCENTAGE

		Value	Source
53	Benefit % (Core Enhancements + Additional Business Enhancements)	18.33%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
54	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
55	ED Confidence	5.00%	Enterprise Design confidence overlay
56	Value Lever Adjustment	0.00%	Strength of this persona's value lever
57	ERP Persona Adjustment	0.00%	
58	**Final Confidence Factor - EL**	**30.00%**	**Sum of the components above, floored at 0%**
59	Exclusivity %	75.00%	
60	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
61	Capital %	41.00%	
62	**Expense %**	**59.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
63	Core Enhancements share of peak benefit	54.55%	
64	**Additional Business Enhancements share**	**45.45%**	**Derived**

Engineer × Power Generation

Assumptions & Reference Rates - Power Generation x Engineer

A. BENEFIT PERCENTAGE

		Value	Source
65	Benefit % (Core Enhancements + Additional Business Enhancements)	10.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
66	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
67	ED Confidence	0.00%	Enterprise Design confidence overlay
68	Value Lever Adjustment	-25.00%	Strength of this persona's value lever
69	ERP Persona Adjustment	0.00%	
70	**Final Confidence Factor - EL**	**0.00%**	**Sum of the components above, floored at 0%**
71	Exclusivity %	75.00%	
72	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
73	Capital %	54.00%	
74	**Expense %**	**46.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
75	Core Enhancements share of peak benefit	100.00%	
76	**Additional Business Enhancements share**	**0.00%**	**Derived**

Workpaper 3-17AX
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - External Labor
(Thousands of Dollars - Escalated)

Estimator × Electric Transmission & Distribution

Assumptions & Reference Rates - Electric Transmission & Distribution x Estimator

A. BENEFIT PERCENTAGE

		Value	Source
77	Benefit % (Core Enhancements + Additional Business Enhancements)	13.33%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
78	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
79	ED Confidence	5.00%	Enterprise Design confidence overlay
80	Value Lever Adjustment	0.00%	Strength of this persona's value lever
81	ERP Persona Adjustment	0.00%	
82	**Final Confidence Factor - EL**	**30.00%**	**Sum of the components above, floored at 0%**
83	Exclusivity %	75.00%	
84	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
85	Capital %	74.00%	
86	**Expense %**	**26.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
87	Core Enhancements share of peak benefit	37.50%	
88	**Additional Business Enhancements share**	**62.50%**	**Derived**

Estimator × Power Generation

Assumptions & Reference Rates - Power Generation x Estimator

A. BENEFIT PERCENTAGE

		Value	Source
89	Benefit % (Core Enhancements + Additional Business Enhancements)	9.99%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
90	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
91	ED Confidence	0.00%	Enterprise Design confidence overlay
92	Value Lever Adjustment	-25.00%	Strength of this persona's value lever
93	ERP Persona Adjustment	0.00%	
94	**Final Confidence Factor - EL**	**0.00%**	**Sum of the components above, floored at 0%**
95	Exclusivity %	75.00%	
96	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
97	Capital %	12.00%	
98	**Expense %**	**88.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
99	Core Enhancements share of peak benefit	100.00%	
100	**Additional Business Enhancements share**	**0.00%**	**Derived**

Workpaper 3-17AX
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - External Labor
(Thousands of Dollars - Escalated)

Gas Distribution Engineering & Design (GDED) Engineer × Gas Distribution

Assumptions & Reference Rates - Gas Distribution x Gas Distribution Engineering & Design (GDED) Engineer

A. BENEFIT PERCENTAGE

		Value	Source
101	Benefit % (Core Enhancements + Additional Business Enhancements)	25.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
102	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
103	ED Confidence	5.00%	Enterprise Design confidence overlay
104	Value Lever Adjustment	5.00%	Strength of this persona's value lever
105	ERP Persona Adjustment	0.00%	
106	**Final Confidence Factor - EL**	**35.00%**	**Sum of the components above, floored at 0%**
107	Exclusivity %	75.00%	
108	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
109	Capital %	6.00%	
110	**Expense %**	**94.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
111	Core Enhancements share of peak benefit	80.00%	
112	**Additional Business Enhancements share**	**20.00%**	**Derived**

Gas Distribution Engineering & Design (GDED) Engineer × Gas Transmission

Assumptions & Reference Rates - Gas Transmission x Gas Distribution Engineering & Design (GDED) Engineer

A. BENEFIT PERCENTAGE

		Value	Source
113	Benefit % (Core Enhancements + Additional Business Enhancements)	0.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
114	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
115	ED Confidence	0.00%	Enterprise Design confidence overlay
116	Value Lever Adjustment	0.00%	Strength of this persona's value lever
117	ERP Persona Adjustment	0.00%	
118	**Final Confidence Factor - EL**	**25.00%**	**Sum of the components above, floored at 0%**
119	Exclusivity %	75.00%	
120	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
121	Capital %	6.00%	
122	**Expense %**	**94.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
123	Core Enhancements share of peak benefit	100.00%	
124	**Additional Business Enhancements share**	**0.00%**	**Derived**

Workpaper 3-17AX
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - External Labor
(Thousands of Dollars - Escalated)

Gas Transmission Engineering & Design (GTED) Engineer × Gas Distribution

Assumptions & Reference Rates - Gas Distribution x Gas Transmission Engineering & Design (GTED) Engineer

A. BENEFIT PERCENTAGE

		Value	Source
125	Benefit % (Core Enhancements + Additional Business Enhancements)	0.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
126	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
127	ED Confidence	0.00%	Enterprise Design confidence overlay
128	Value Lever Adjustment	0.00%	Strength of this persona's value lever
129	ERP Persona Adjustment	0.00%	
130	**Final Confidence Factor - EL**	**25.00%**	**Sum of the components above, floored at 0%**
131	Exclusivity %	75.00%	
132	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
133	Capital %	6.00%	
134	**Expense %**	**94.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
135	Core Enhancements share of peak benefit	100.00%	
136	**Additional Business Enhancements share**	**0.00%**	**Derived**

Gas Transmission Engineering & Design (GTED) Engineer × Gas Transmission

Assumptions & Reference Rates - Gas Transmission x Gas Transmission Engineering & Design (GTED) Engineer

A. BENEFIT PERCENTAGE

		Value	Source
137	Benefit % (Core Enhancements + Additional Business Enhancements)	25.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
138	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
139	ED Confidence	5.00%	Enterprise Design confidence overlay
140	Value Lever Adjustment	0.00%	Strength of this persona's value lever
141	ERP Persona Adjustment	0.00%	
142	**Final Confidence Factor - EL**	**30.00%**	**Sum of the components above, floored at 0%**
143	Exclusivity %	75.00%	
144	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
145	Capital %	6.00%	
146	**Expense %**	**94.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
147	Core Enhancements share of peak benefit	80.00%	
148	**Additional Business Enhancements share**	**20.00%**	**Derived**

LEAPS Specialist (Biology, Cultural, Environment) × LEAPS

Assumptions & Reference Rates - LEAPS x LEAPS Specialist (Biology, Cultural, Environment)

A. BENEFIT PERCENTAGE

		Value	Source
149	Benefit % (Core Enhancements + Additional Business Enhancements)	0.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
150	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
151	ED Confidence	0.00%	Enterprise Design confidence overlay
152	Value Lever Adjustment	10.00%	Strength of this persona's value lever
153	ERP Persona Adjustment	0.00%	
154	**Final Confidence Factor - EL**	**35.00%**	**Sum of the components above, floored at 0%**
155	Exclusivity %	75.00%	
156	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
157	Capital %	0.00%	
158	**Expense %**	**100.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
159	Core Enhancements share of peak benefit	100.00%	
160	**Additional Business Enhancements share**	**0.00%**	**Derived**

Land Planner × Land, Environmental & Permitting Services (LEAPS)

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Land Planner

A. BENEFIT PERCENTAGE

		Value	Source
161	Benefit % (Core Enhancements + Additional Business Enhancements)	25.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
162	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
163	ED Confidence	0.00%	Enterprise Design confidence overlay
164	Value Lever Adjustment	5.00%	Strength of this persona's value lever
165	ERP Persona Adjustment	0.00%	
166	**Final Confidence Factor - EL**	**30.00%**	**Sum of the components above, floored at 0%**
167	Exclusivity %	75.00%	
168	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
169	Capital %	12.00%	
170	**Expense %**	**88.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
171	Core Enhancements share of peak benefit	100.00%	
172	**Additional Business Enhancements share**	**0.00%**	**Derived**

Land Technician × Land, Environmental & Permitting Services (LEAPS)

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Land Technician

A. BENEFIT PERCENTAGE

		Value	Source
173	Benefit % (Core Enhancements + Additional Business Enhancements)	15.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
174	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
175	ED Confidence	0.00%	Enterprise Design confidence overlay
176	Value Lever Adjustment	10.00%	Strength of this persona's value lever
177	ERP Persona Adjustment	0.00%	
178	**Final Confidence Factor - EL**	**35.00%**	**Sum of the components above, floored at 0%**
179	Exclusivity %	75.00%	
180	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
181	Capital %	14.00%	
182	**Expense %**	**86.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
183	Core Enhancements share of peak benefit	100.00%	
184	**Additional Business Enhancements share**	**0.00%**	**Derived**

Planner × Land, Environmental & Permitting Services (LEAPS)

Assumptions & Reference Rates - Land, Environmental & Permitting Services (LEAPS) x Planner

A. BENEFIT PERCENTAGE

		Value	Source
185	Benefit % (Core Enhancements + Additional Business Enhancements)	15.00%	

External Labor applies one blended Benefit % to the whole spend figure so there is no Direct Time / Mgmt OH / Benefits OH split.

B. CONFIDENCE FACTOR

	Component	Value	What it represents
186	Phase 0 Confidence	25.00%	Base confidence rate for contractor-spend
187	ED Confidence	0.00%	Enterprise Design confidence overlay
188	Value Lever Adjustment	5.00%	Strength of this persona's value lever
189	ERP Persona Adjustment	0.00%	
190	**Final Confidence Factor - EL**	**30.00%**	**Sum of the components above, floored at 0%**
191	Exclusivity %	75.00%	
192	Discount factor for double-counting	0.00%	

C. CAPITAL / EXPENSE SPLIT

Capital and Expense follow the Capital % for this Role × Operating Area: Capital = net benefit × Capital %, Expense = net benefit × (1 − Capital %).

		Value	Source
193	Capital %	9.00%	
194	**Expense %**	**91.00%**	**1 − Capital %**

D. COMPONENT SPLIT

		Value	Source
195	Core Enhancements share of peak benefit	100.00%	
196	**Additional Business Enhancements share**	**0.00%**	**Derived**

Workpaper 3-18
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Supply Chain Optimization and Materials Availability
Value Driver - Forecasting and Demand Planning

WP#	Workpaper Name
	Summary WPs
3-18	Testimony Table
3-18A	Forecasting and Demand Planning Summary
	Detail WPs
3-18B	Forecasting and Demand Planning Walkthrough
	Assumptions & Reference Rates WPs
3-18C	Assumptions & Reference Rates - Forecasting and Demand Planning Non-Labor

Workpaper 3-18
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Supply Chain Optimization and Materials Availability Benefits - Testimony Table

TABLE 3-38
SUPPLY CHAIN OPTIMIZATION AND MATERIALS AVAILABILITY BENEFIT CATEOGRY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Forecasting and Demand Planning	$ 0.6	$ 5.8	$ 47.4	$ 164.1	$ 249.6	$ 251.7	$ 249.1	$ 63.6	$ -	$ -	$ -	$ -	$ 1,031.9
2	Standardized Contract Management	0.3	3.2	30.2	107.6	164.4	166.4	165.6	42.3	-	-	-	-	680.1
3	Streamlined Supplier Management	0.2	1.5	16.5	60.0	91.9	93.4	93.3	23.8	-	-	-	-	380.5
4	Streamlined Warehouse Management	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.3	1.4	9.6
5	Inventory Optimization and Materials Mgmt	0.0	0.1	2.2	8.4	13.0	13.3	13.5	3.4	-	-	-	-	54.0
6	**ERP Total**	**$ 1.1**	**$ 10.7**	**$ 96.3**	**$ 340.2**	**$ 519.6**	**$ 526.0**	**$ 522.7**	**$ 134.3**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,156.2**
7	Better Rates and Terms	$ -	$ -	$ 1.7	$ 7.2	$ 11.6	$ 12.1	$ 12.3	$ 3.1	$ -	$ -	$ -	$ -	$ 48.0
8	**GIS Total**	**$ -**	**$ -**	**$ 1.7**	**$ 7.2**	**$ 11.6**	**$ 12.1**	**$ 12.3**	**$ 3.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48.0**
9	**Total**	**$ 1.1**	**$ 10.7**	**$ 98.0**	**$ 347.4**	**$ 531.2**	**$ 538.0**	**$ 535.0**	**$ 137.5**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,204.2**

Workpaper 3-18A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Forecasting and Demand Planning
(Thousands of Dollars - Escalated)

Benefit Category	Supply Chain Optimization and Materials Availability
Value Driver	Forecasting and Demand Planning
Calculation Method	Non-Labor

DEFINITION

Better rates achieved on targeted spend categories due to an advanced planning tool that generates automated demand forecasts and auto-MRP that creates purchase orders from real demand signals. Accurate forecasting enables procurement at market pricing and reduces expedited shipping costs by ordering ahead of need rather than reacting to shortages.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

Line No.	Component	Un-escalated			Escalated		
		Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
1	**Internal Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3	**Non-Labor Sourcing**	**$146,758**	**$62,955**	**$209,713**	**$176,130**	**$75,555**	**$251,685**
4	**TOTAL VALUE DRIVER BENEFIT**	**$146,758**	**$62,955**	**$209,713**	**$176,130**	**$75,555**	**$251,685**
5	**Peak Annual Benefit, Un-escalated**	**$207,640**					
6	**Peak Benefit Reached**	**2032**					

YEAR OVER YEAR, UN-ESCALATED

	Component	2028	2029	2030	2031	Peak Benefit Reached 2032	2033	2034	2035	2036	2037	2038	2039	Total
7	Non-labor sourcing	$556	$5,118	$41,001	$139,222	$207,640	$205,263	$199,032	$49,758	$0	$0	$0	$0	$847,590
8	**TOTAL: ALL COMPONENTS**	**$556**	**$5,118**	**$41,001**	**$139,222**	**$207,640**	**$205,263**	**$199,032**	**$49,758**	**$0**	**$0**	**$0**	**$0**	**$847,590**
9	Capital	$409	$3,765	$28,988	$97,564	$145,311	$143,484	$138,900	$34,725	$0	$0	$0	$0	$593,146
10	Expense incl. NEE	$147	$1,353	$12,013	$41,658	$62,329	$61,779	$60,132	$15,033	$0	$0	$0	$0	$254,444
11	**CUMULATIVE**	**$556**	**$5,674**	**$46,675**	**$185,898**	**$393,537**	**$598,800**	**$797,832**	**$847,590**	**$847,590**	**$847,590**	**$847,590**	**$847,590**	
12	**CUMULATIVE BENEFITS**	**$847,590**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
13	Non-labor sourcing	$621	$5,818	$47,432	$164,102	$249,570	$251,685	$249,117	$63,563	$0	$0	$0	$0	$1,031,907
14	**TOTAL, ALL COMPONENTS, ESCALATED**	**$621**	**$5,818**	**$47,432**	**$164,102**	**$249,570**	**$251,685**	**$249,117**	**$63,563**	**$0**	**$0**	**$0**	**$0**	**$1,031,907**
15	Capital	$459	$4,300	$33,662	$115,336	$174,958	$176,075	$173,859	$44,338	$0	$0	$0	$0	$722,988
16	Expense incl. NEE	$162	$1,518	$13,769	$48,766	$74,612	$75,610	$75,258	$19,225	$0	$0	$0	$0	$308,919
17	**CUMULATIVE, ESCALATED**	**$621**	**$6,439**	**$53,871**	**$217,972**	**$467,542**	**$719,227**	**$968,344**	**$1,031,907**	**$1,031,907**	**$1,031,907**	**$1,031,907**	**$1,031,907**	

Workpaper 3-18B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Forecasting and Demand Planning Non-Labor
(Thousands of Dollars - Escalated)

STEP 1 OF 4: ADDRESSABLE SPEND

The analysis starts with General Ledger spend, keeps only spend tied to addressable commodity codes, and allocates each material group across its commodity codes based on purchase-order spend.

Line No.	Buildup	Amount
1	Total GL non-labor spend (2024)	$11,457,000
2	On commodity codes Demand Planning can improve	$7,372,823
3	**Addressable spend, allocated to commodity code**	**$6,824,529**

	Split	Addressable Spend
4	Materials	$26,340
5	Other	$1,185,790
6	Services	$5,612,399
7	**TOTAL ADDRESSABLE**	**$6,824,529**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Every commodity code is classified High, Medium or Low by how much improvement ERP enables, and the rate also depends on whether the spend is materials or services. The rate table is on Assumptions section D; the Improvement Range % shown here is the blended result across the codes in each split.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Split	**Addressable Spend**	**Improvement Range %[1] (blended)**	**Gross Benefit**
8	Materials	$26,340	2.00%	$527
9	Other	$1,185,790	2.00%	$23,716
10	Services	$5,612,399	6.28%	$352,707
11	**TOTAL RAW BENEFIT**	**$6,824,529**	**5.52%**	**$376,950**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor is applied to the whole pool. No overhead is included. The factor is the Realization Rate multiplied by Exclusivity, both set on the Assumptions workpaper.

	HOW THE CONFIDENCE FACTOR IS BUILT	
12	Starting realization rate	75.00%
13	+ Maturity adjustment (percentage points)	10.00%
14	Held at ceiling	80.00%
15	Realization Rate	80.00%
16	x Exclusivity %	75.00%
17	**CONFIDENCE FACTOR**	**60.00%**

	Formula Walkthrough	*A*	*B*	*C*	*D = B x C*	*E = A x D*
	Traceability	**Gross Benefit**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Benefit**
18	Commodity code and material group combined	$376,950	80.00%	75.00%	60.00%	$226,170
19	**Pre-Erosion Net**					**$226,170**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*	*D*	*E*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**	**Capital**	**Expense incl. NEE**
20	All other orgs	$225,185	92.93%	$209,255	$146,758	$62,498
21	Nuclear Generation	$985	46.46%	$458	$0	$458
22	**TOTAL**	**$226,170**	**92.72%**	**$209,713**	**$146,758**	**$62,955**

23	**NET BENEFIT (POST-EROSION)**	**$209,713**	
24	**Capital**	**$146,758**	**69.98%**
25	**Expense incl. NEE**	**$62,955**	**30.02%**

Workpaper 3-18B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Forecasting and Demand Planning Non-Labor
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
26	Release 1	Jul 2027	Aug 2028	Jul 2030	$10,681	$7,858	$779
27	Release 2	Mar 2029	Apr 2030	Mar 2032	$199,032	$138,900	$41,324
28	**Total**				**$209,713**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $10,680,999 = $556,302.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
29	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	58.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
31	Release 1 Benefit	$556	$5,118	$9,902	$10,681	$10,681	$6,231	$0	$0	$0	$0	$0	$0
32	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	25.00%	0.00%	0.00%	0.00%	0.00%
33	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	3.00	0.00	0.00	0.00	0.00
34	Release 2 Benefit	$0	$0	$31,099	$128,541	$196,959	$199,032	$199,032	$49,758	$0	$0	$0	$0
35	**Annual Benefit**	**$556**	**$5,118**	**$41,001**	**$139,222**	**$207,640**	**$205,263**	**$199,032**	**$49,758**	**$0**	**$0**	**$0**	**$0**
36	**CUMULATIVE**	**$556**	**$5,674**	**$46,675**	**$185,898**	**$393,537**	**$598,800**	**$797,832**	**$847,590**	**$847,590**	**$847,590**	**$847,590**	**$847,590**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
37	Capital benefit	$409	$3,765	$28,988	$97,564	$145,311	$143,484	$138,900	$34,725	$0	$0	$0	$0
38	Expense benefit	$106	$980	$4,834	$14,191	$20,656	$20,000	$18,808	$4,702	$0	$0	$0	$0
39	Non-earnings expense benefit	$41	$373	$7,179	$27,467	$41,673	$41,779	$41,324	$10,331	$0	$0	$0	$0
40	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
41	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
42	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
43	**Escalated Annual Benefit**	**$621**	**$5,818**	**$47,432**	**$164,102**	**$249,570**	**$251,685**	**$249,117**	**$63,563**	**$0**	**$0**	**$0**	**$0**
44	**Escalated Cumulative**	**$621**	**$6,439**	**$53,871**	**$217,972**	**$467,542**	**$719,227**	**$968,344**	**$1,031,907**	**$1,031,907**	**$1,031,907**	**$1,031,907**	**$1,031,907**

45	Peak annual benefit, as modeled	$207,640	The highest year on the Annual Benefit row above.
46	**Peak annual benefit, escalated**	**$251,685**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
47	**Uplift on peak**	**21.21%**	The % increase of peak annual benefit due to escalation.

GLOSSARY

Addressable Spend	General Ledger spend multiplied by the commodity code's share of its material group. The base the Improvement Range % is applied to.
Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Two factors apply in Step 4: E1 and E2, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the improvement. Assigned by commodity code and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation and was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-18C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Forecasting and Demand Planning Non-Labor

Assumptions & Reference Rates
Demand Planning - Earlier visibility into demand, simpler and more standard requirements

Line No.			Notes
	A. CONFIDENCE RATES		
1	Starting realization rate	75.00%	Contracted services and materials start at 75% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate ceiling	80.00%	Maximum realization rate allowed in the model. If the calculated rate exceeds the ceiling, it is capped at this level.
4	Realization rate	80.00%	Percentage of the improvement range expected to be captured.
5	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
6	**Confidence Factor (Realization × Exclusivity %)**	60.00%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION		
7	E1 - Value Driver scope	92.93%	Share of the value driver that remains in ERP scope after Enterprise Design.
8	E_MAB - Mobile as Built	N/A	Mobile As Built erosion is not applicable to this value driver.
9	E2 - Nuclear Generation	50.00%	Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
10	**Combined erosion factor**	92.72%	
	C. SPEND BASE		
11	Total GL non-labor spend (2024)	$11,457,000	Total non-labor General Ledger spend before any exclusions.
12	On commodity codes Demand Planning can improve	$7,372,823	Spend on commodity codes affected by Demand Planning.
13	Traced to a commodity code - benefit	$196,500	Benefit tied to a specific commodity code.
14	Traced to a material group - benefit	$13,223	Benefit tied to a material group, but not a specific commodity code.

D. IMPROVEMENT RANGE %[1]

	Level	Services Rate	Materials Rate	
15	High	8.00%	5.00%	Each impacted commodity code or spend class is assigned a tier (High, Medium, or Low) based on how directly Forecasting and Demand Planning can impact the commodity code. Codes that are directly impacted by capital and maintenance work planning are assigned High, such as construction, maintenance services, and associated services such as traffic control and permitting. Codes in the Medium tier include rentals and trucking. Low tier includes corporate services. Emergency work cannot be planned, and therefore is not in-scope for this driver.
16	Medium	6.00%	4.00%	
17	Low	4.00%	2.00%	

	E. ADOPTION SCHEDULE		
18	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
19	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
20	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
21	Capital, all benefit types	1.071704	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
22	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
23	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
24	Expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
25	Non-earnings expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-19
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Supply Chain Optimization and Materials Availability
Value Driver - Standardized Contract Management

WP#	Workpaper Name
	Summary WPs
3-19	Testimony Table
3-19A	Standardized Contract Management Summary
	Detail WPs
3-19B	Standardized Contract Management Non-Labor
	Assumptions & Reference Rates WPs
3-19C	Assumptions & Reference Rates - Standardized Contract Management Non-Labor

Workpaper 3-19
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Supply Chain Optimization and Materials Availability Benefits - Testimony Table

TABLE 3-38
SUPPLY CHAIN OPTIMIZATION AND MATERIALS AVAILABILITY BENEFIT CATEOGRY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Forecasting and Demand Planning	$ 0.6	$ 5.8	$ 47.4	$ 164.1	$ 249.6	$ 251.7	$ 249.1	$ 63.6	$ -	$ -	$ -	$ -	$ 1,031.9
2	Standardized Contract Management	0.3	3.2	30.2	107.6	164.4	166.4	165.6	42.3	-	-	-	-	680.1
3	Streamlined Supplier Management	0.2	1.5	16.5	60.0	91.9	93.4	93.3	23.8	-	-	-	-	380.5
4	Streamlined Warehouse Management	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.3	1.4	9.6
5	Inventory Optimization and Materials Mgmt	0.0	0.1	2.2	8.4	13.0	13.3	13.5	3.4	-	-	-	-	54.0
6	**ERP Total**	**$ 1.1**	**$ 10.7**	**$ 96.3**	**$ 340.2**	**$ 519.6**	**$ 526.0**	**$ 522.7**	**$ 134.3**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,156.2**
7	Better Rates and Terms	$ -	$ -	$ 1.7	$ 7.2	$ 11.6	$ 12.1	$ 12.3	$ 3.1	$ -	$ -	$ -	$ -	$ 48.0
8	**GIS Total**	**$ -**	**$ -**	**$ 1.7**	**$ 7.2**	**$ 11.6**	**$ 12.1**	**$ 12.3**	**$ 3.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48.0**
9	**Total**	**$ 1.1**	**$ 10.7**	**$ 98.0**	**$ 347.4**	**$ 531.2**	**$ 538.0**	**$ 535.0**	**$ 137.5**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,204.2**

Workpaper 3-19A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Contract Management
(Thousands of Dollars - Escalated)

Benefit Category	Supply Chain Optimization and Materials Availability
Value Driver	Standardized Contract Management
Calculation Method	Non-Labor

DEFINITION

Better terms achieved on targeted spend categories through standardized pricing terms, general terms and conditions, and supplier pre-registration in a single contract management system (SAP Ariba CLM). Standardized documentation and digitally stored rates give PG&E better data to incrementally improve the terms being agreed to, resulting in more favorable rates over time.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

Line No.	Component	Un-escalated			Escalated		
		Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
1	**Internal Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3	**Non-Labor Sourcing**	**$89,303**	**$48,913**	**$138,216**	**$107,541**	**$58,903**	**$166,444**
4	**TOTAL VALUE DRIVER BENEFIT**	**$89,303**	**$48,913**	**$138,216**	**$107,541**	**$58,903**	**$166,444**
5	**Peak Annual Benefit, Un-escalated**	**$136,838**					
6	**Peak Benefit Reached**	**2032**					

YEAR OVER YEAR, UN-ESCALATED

	Component	2028	2029	2030	2031	Peak Benefit Reached 2032	2033	2034	2035	2036	2037	2038	2039	Total
7	Non-labor sourcing	$307	$2,820	$26,133	$91,349	$136,838	$135,764	$132,330	$33,083	$0	$0	$0	$0	$558,623
8	**TOTAL: ALL COMPONENTS**	**$307**	**$2,820**	**$26,133**	**$91,349**	**$136,838**	**$135,764**	**$132,330**	**$33,083**	**$0**	**$0**	**$0**	**$0**	**$558,623**
9	Capital	$215	$1,982	$17,142	$59,140	$88,416	$87,579	$85,166	$21,292	$0	$0	$0	$0	$360,932
10	Expense incl. NEE	$91	$838	$8,991	$32,210	$48,422	$48,184	$47,164	$11,791	$0	$0	$0	$0	$197,692
11	**CUMULATIVE**	**$307**	**$3,127**	**$29,260**	**$120,609**	**$257,447**	**$393,211**	**$525,541**	**$558,623**	**$558,623**	**$558,623**	**$558,623**	**$558,623**	
12	**CUMULATIVE BENEFITS**	**$558,623**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
13	Non-labor sourcing	$342	$3,204	$30,212	$107,617	$164,419	$166,444	$165,629	$42,265	$0	$0	$0	$0	$680,132
14	**TOTAL, ALL COMPONENTS, ESCALATED**	**$342**	**$3,204**	**$30,212**	**$107,617**	**$164,419**	**$166,444**	**$165,629**	**$42,265**	**$0**	**$0**	**$0**	**$0**	**$680,132**
15	Capital	$242	$2,263	$19,906	$69,912	$106,455	$107,472	$106,602	$27,186	$0	$0	$0	$0	$440,038
16	Expense incl. NEE	$100	$941	$10,306	$37,705	$57,964	$58,972	$59,027	$15,079	$0	$0	$0	$0	$240,094
17	**CUMULATIVE, ESCALATED**	**$342**	**$3,546**	**$33,758**	**$141,375**	**$305,794**	**$472,238**	**$637,867**	**$680,132**	**$680,132**	**$680,132**	**$680,132**	**$680,132**	

Workpaper 3-19B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Contract Management Non-Labor
(Thousands of Dollars - Escalated)

STEP 1 OF 4: ADDRESSABLE SPEND

The analysis starts with General Ledger spend, keeps only spend tied to addressable commodity codes, and allocates each material group across its commodity codes based on purchase-order spend.

Line No.	Buildup	Amount
1	Total GL non-labor spend (2024)	$11,457,000
2	On commodity codes Contract Management can improve	$7,372,823
3	**Addressable spend, allocated to commodity code**	**$7,037,047**

	Split	Addressable Spend
4	Materials	$26,340
5	Other	$1,185,790
6	Services	$5,824,917
7	**TOTAL ADDRESSABLE**	**$7,037,047**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Every commodity code is classified High, Medium or Low by how much improvement ERP enables, and the rate also depends on whether the spend is materials or services. The rate table is on Assumptions section D; the Improvement Range % shown here is the blended result across the codes in each split.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Split	**Addressable Spend**	**Improvement Range %[1] (blended)**	**Gross Benefit**
8	Materials	$26,340	2.00%	$527
9	Other	$1,185,790	2.00%	$23,716
10	Services	$5,824,917	4.68%	$272,611
11	**TOTAL RAW BENEFIT**	**$7,037,047**	**4.22%**	**$296,853**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor is applied to the whole pool. No overhead is included. The factor is the Realization Rate multiplied by Exclusivity, both set on the Assumptions workpaper.

	HOW THE CONFIDENCE FACTOR IS BUILT	
12	Starting realization rate	75.00%
13	+ Maturity adjustment (percentage points)	5.00%
14	Held at ceiling	80.00%
15	Realization Rate	80.00%
16	x Exclusivity %	75.00%
17	**CONFIDENCE FACTOR**	**60.00%**

	Formula Walkthrough	*A*	*B*	*C*	*D = B x C*	*E = A x D*
	Traceability	**Gross Benefit**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Benefit**
18	Commodity code and material group combined	$296,853	80.00%	75.00%	60.00%	$178,112
19	**Pre-Erosion Net**					**$178,112**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*	*D*	*E*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**	**Capital**	**Expense incl. NEE**
20	All other orgs	$177,095	77.82%	$137,820	$89,303	$48,518
21	Nuclear Generation	$1,017	38.91%	$396	$0	$396
22	**TOTAL**	**$178,112**	**77.60%**	**$138,216**	**$89,303**	**$48,913**

23	**NET BENEFIT (POST-EROSION)**	**$138,216**	
24	**Capital**	**$89,303**	**64.61%**
25	**Expense incl. NEE**	**$48,913**	**35.39%**

Workpaper 3-19B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Contract Management Non-Labor
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
26	Release 1	Jul 2027	Aug 2028	Jul 2030	$5,886	$4,136	$489
27	Release 2	Mar 2029	Apr 2030	Mar 2032	$132,330	$85,166	$31,552
28	**Total**				**$138,216**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $5,885,853 = $306,555.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
29	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	58.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
31	Release 1 Benefit	$307	$2,820	$5,457	$5,886	$5,886	$3,433	$0	$0	$0	$0	$0	$0
32	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	25.00%	0.00%	0.00%	0.00%	0.00%
33	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	3.00	0.00	0.00	0.00	0.00
34	Release 2 Benefit	$0	$0	$20,677	$85,463	$130,952	$132,330	$132,330	$33,083	$0	$0	$0	$0
35	**Annual Benefit**	**$307**	**$2,820**	**$26,133**	**$91,349**	**$136,838**	**$135,764**	**$132,330**	**$33,083**	**$0**	**$0**	**$0**	**$0**
36	**CUMULATIVE**	**$307**	**$3,127**	**$29,260**	**$120,609**	**$257,447**	**$393,211**	**$525,541**	**$558,623**	**$558,623**	**$558,623**	**$558,623**	**$558,623**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
37	Capital benefit	$215	$1,982	$17,142	$59,140	$88,416	$87,579	$85,166	$21,292	$0	$0	$0	$0
38	Expense benefit	$66	$604	$3,608	$11,343	$16,709	$16,347	$15,612	$3,903	$0	$0	$0	$0
39	Non-earnings expense benefit	$25	$235	$5,384	$20,867	$31,713	$31,838	$31,552	$7,888	$0	$0	$0	$0
40	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
41	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
42	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
43	**Escalated Annual Benefit**	**$342**	**$3,204**	**$30,212**	**$107,617**	**$164,419**	**$166,444**	**$165,629**	**$42,265**	**$0**	**$0**	**$0**	**$0**
44	**Escalated Cumulative**	**$342**	**$3,546**	**$33,758**	**$141,375**	**$305,794**	**$472,238**	**$637,867**	**$680,132**	**$680,132**	**$680,132**	**$680,132**	**$680,132**

45	Peak annual benefit, as modeled	$136,838	The highest year on the Annual Benefit row above.
46	**Peak annual benefit, escalated**	**$166,444**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
47	**Uplift on peak**	**21.64%**	The % increase of peak annual benefit due to escalation.

Workpaper 3-19B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Contract Management Non-Labor
(Thousands of Dollars - Escalated)

GLOSSARY

Addressable Spend	General Ledger spend multiplied by the commodity code's share of its material group. The base the Improvement Range % is applied to.
Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Two factors apply in Step 4: E1 and E2, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the improvement. Assigned by commodity code and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation and was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-19C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Contract Management Non-Labor

Line No.			Notes
	A. CONFIDENCE RATES		
1	Starting realization rate	75.00%	Contracted services and materials start at 75% before applying any other adjustments.
2	Maturity adjustment (percentage points)	5.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate ceiling	80.00%	Maximum realization rate allowed in the model. If the calculated rate exceeds the ceiling, it is capped at this level.
4	Realization rate	80.00%	Percentage of the improvement range expected to be captured.
5	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
6	**Confidence Factor (Realization × Exclusivity %)**	60.00%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION		
7	E1 - Value Driver scope	77.82%	Share of the value driver that remains in ERP scope after Enterprise Design.
8	E_MAB - Mobile as Built	N/A	Mobile As Built erosion is not applicable to this value driver.
9	E2 - Nuclear Generation	50.00%	Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
10	**Combined erosion factor**	77.60%	
	C. SPEND BASE		
11	Total GL non-labor spend (2024)	$11,457,000	Total non-labor General Ledger spend before any exclusions.
12	On commodity codes Contract Management can improve	$7,372,823	Spend on commodity codes affected by Contract Management.
13	Traced to a commodity code - benefit	$127,154	Benefit tied to a specific commodity code.
14	Traced to a material group - benefit	$11,074	Benefit tied to a material group, but not a specific commodity code.

D. IMPROVEMENT RANGE %[1]

Line No.	Level	Services Rate	Materials Rate	
15	High	9.00%	5.00%	Each impacted commodity code or spend class is assigned a tier (High, Medium, or Low) based on how directly Standardized Contract Management can impact the commodity code. No commodity code is assigned High for this driver. Codes assigned Medium are those purchased by the hour or on rate cards, such as professional and technical services, and certain constructrion services. Other categories of spend are rated Low.
16	Medium	7.00%	3.00%	
17	Low	4.00%	2.00%	

	E. ADOPTION SCHEDULE		
18	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
19	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
20	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Capital, all benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
Expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
Non-earnings expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-20
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Supply Chain Optimization and Materials Availability
Value Driver - Streamlined Supplier Management

WP#	Workpaper Name
	Summary WPs
3-20	Testimony Table
3-20A	Streamlined Supplier Management Summary
	Detail WPs
3-20B	Streamlined Supplier Management Non-Labor
	Assumptions & Reference Rates WPs
3-20C	Assumptions & Reference Rates - Streamlined Supplier Management Non-Labor

Supply Chain Optimization and Materials Availability Benefits - Testimony Table

TABLE 3-38
SUPPLY CHAIN OPTIMIZATION AND MATERIALS AVAILABILITY BENEFIT CATEOGRY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Forecasting and Demand Planning	$ 0.6	$ 5.8	$ 47.4	$ 164.1	$ 249.6	$ 251.7	$ 249.1	$ 63.6	$ -	$ -	$ -	$ -	$ 1,031.9
2	Standardized Contract Management	0.3	3.2	30.2	107.6	164.4	166.4	165.6	42.3	-	-	-	-	680.1
3	Streamlined Supplier Management	0.2	1.5	16.5	60.0	91.9	93.4	93.3	23.8	-	-	-	-	380.5
4	Streamlined Warehouse Management	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.3	1.4	9.6
5	Inventory Optimization and Materials Mgmt	0.0	0.1	2.2	8.4	13.0	13.3	13.5	3.4	-	-	-	-	54.0
6	**ERP Total**	**$ 1.1**	**$ 10.7**	**$ 96.3**	**$ 340.2**	**$ 519.6**	**$ 526.0**	**$ 522.7**	**$ 134.3**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,156.2**
7	Better Rates and Terms	$ -	$ -	$ 1.7	$ 7.2	$ 11.6	$ 12.1	$ 12.3	$ 3.1	$ -	$ -	$ -	$ -	$ 48.0
8	**GIS Total**	**$ -**	**$ -**	**$ 1.7**	**$ 7.2**	**$ 11.6**	**$ 12.1**	**$ 12.3**	**$ 3.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48.0**
9	**Total**	**$ 1.1**	**$ 10.7**	**$ 98.0**	**$ 347.4**	**$ 531.2**	**$ 538.0**	**$ 535.0**	**$ 137.5**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,204.2**

Workpaper 3-20A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Supplier Management
(Thousands of Dollars - Escalated)

Benefit Category	Supply Chain Optimization and Materials Availability
Value Driver	Streamlined Supplier Management
Calculation Method	Non-Labor

DEFINITION

Savings achieved by ensuring suppliers perform the way they should, through standardized supplier performance scorecards, supplier risk assessment, and tools to enforce contracted terms. Holding suppliers accountable to agreed service levels and having the data and systems to identify underperformance drives cost avoidance and improved delivery outcomes.

Benefit Build: Peak Benefits in a Year
The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
1	**Internal Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3	**Non-Labor Sourcing**	**$39,312**	**$38,050**	**$77,363**	**$47,444**	**$45,921**	**$93,365**
4	**TOTAL VALUE DRIVER BENEFIT**	**$39,312**	**$38,050**	**$77,363**	**$47,444**	**$45,921**	**$93,365**
5	**Peak Annual Benefit, Un-escalated**	**$76,586**					
6	**Peak Benefit Reached**	**2032**					

YEAR OVER YEAR, UN-ESCALATED

					Peak Benefit Reached								
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
7	Non-labor sourcing	$147	$1,356	$14,270	$50,966	$76,586	$76,183	$74,532	$18,633	$0	$0	$0	$0	$312,674
8	**TOTAL: ALL COMPONENTS**	**$147**	**$1,356**	**$14,270**	**$50,966**	**$76,586**	**$76,183**	**$74,532**	**$18,633**	**$0**	**$0**	**$0**	**$0**	**$312,674**
9	Capital	$103	$950	$7,671	$26,091	$38,924	$38,486	$37,330	$9,332	$0	$0	$0	$0	$158,888
10	Expense incl. NEE	$44	$406	$6,599	$24,874	$37,663	$37,697	$37,202	$9,301	$0	$0	$0	$0	$153,786
11	**CUMULATIVE**	**$147**	**$1,504**	**$15,774**	**$66,739**	**$143,326**	**$219,509**	**$294,041**	**$312,674**	**$312,674**	**$312,674**	**$312,674**	**$312,674**	
12	**CUMULATIVE BENEFITS**	**$312,674**												

YEAR OVER YEAR, ESCALATED
The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
13	Non-labor sourcing	$165	$1,541	$16,471	$59,962	$91,950	$93,365	$93,285	$23,810	$0	$0	$0	$0	$380,548
14	**TOTAL, ALL COMPONENTS, ESCALATED**	**$165**	**$1,541**	**$16,471**	**$59,962**	**$91,950**	**$93,365**	**$93,285**	**$23,810**	**$0**	**$0**	**$0**	**$0**	**$380,548**
15	Capital	$116	$1,085	$8,908	$30,844	$46,865	$47,228	$46,725	$11,916	$0	$0	$0	$0	$193,687
16	Expense incl. NEE	$49	$456	$7,564	$29,118	$45,085	$46,136	$46,560	$11,894	$0	$0	$0	$0	$186,861
17	**CUMULATIVE, ESCALATED**	**$165**	**$1,705**	**$18,177**	**$78,139**	**$170,089**	**$263,453**	**$356,739**	**$380,548**	**$380,548**	**$380,548**	**$380,548**	**$380,548**	

Workpaper 3-20B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Supplier Management Non-Labor
(Thousands of Dollars - Escalated)

STEP 1 OF 4: ADDRESSABLE SPEND

The analysis starts with General Ledger spend, keeps only spend tied to addressable commodity codes, and allocates each material group across its commodity codes based on purchase-order spend.

Line No.	Buildup	Amount
1	Total GL non-labor spend (2024)	$11,457,000
2	On commodity codes Supplier Management can improve	$7,372,823
3	**Addressable spend, allocated to commodity code**	**$7,037,047**

	Split	Addressable Spend
4	Materials	$26,340
5	Other	$1,185,790
6	Services	$5,824,917
7	**TOTAL ADDRESSABLE**	**$7,037,047**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Every commodity code is classified High, Medium or Low by how much improvement ERP enables, and the rate also depends on whether the spend is materials or services. The rate table is on Assumptions section D; the Improvement Range % shown here is the blended result across the codes in each split.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Split	**Addressable Spend**	**Improvement Range %[1] (blended)**	**Gross Benefit**
8	Materials	$26,340	1.50%	$395
9	Other	$1,185,790	3.00%	$35,574
10	Services	$5,824,917	1.60%	$93,236
11	**TOTAL RAW BENEFIT**	**$7,037,047**	**1.84%**	**$129,205**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor is applied to the whole pool. No overhead is included. The factor is the Realization Rate multiplied by Exclusivity, both set on the Assumptions workpaper.

	HOW THE CONFIDENCE FACTOR IS BUILT	
12	Starting realization rate	75.00%
13	+ Maturity adjustment (percentage points)	5.00%
14	Held at ceiling	80.00%
15	Realization Rate	80.00%
16	x Exclusivity %	75.00%
17	**CONFIDENCE FACTOR**	**60.00%**

	Formula Walkthrough	*A*	*B*	*C*	*D = B x C*	*E = A x D*
	Traceability	**Gross Benefit**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Benefit**
18	Commodity code and material group combined	$129,205	80.00%	75.00%	60.00%	$77,523
19	**Pre-Erosion Net**					**$77,523**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*	*D*	*E*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**	**Capital**	**Expense incl. NEE**
20	All other orgs	$77,202	100.00%	$77,202	$39,312	$37,890
21	Nuclear Generation	$321	50.00%	$160	$0	$160
22	**TOTAL**	**$77,523**	**99.79%**	**$77,363**	**$39,312**	**$38,050**

23	**NET BENEFIT (POST-EROSION)**	**$77,363**	
24	**Capital**	**$39,312**	**50.82%**
25	**Expense incl. NEE**	**$38,050**	**49.18%**

Workpaper 3-20B
Pacific Gas and Electric Company
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Value Driver - Streamlined Supplier Management Non-Labor
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
26	Release 1	Jul 2027	Aug 2028	Jul 2030	$2,831	$1,983	$252
27	Release 2	Mar 2029	Apr 2030	Mar 2032	$74,532	$37,330	$30,474
28	**Total**				**$77,363**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $2,830,569 = $147,425.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
29	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	58.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
31	Release 1 Benefit	$147	$1,356	$2,624	$2,831	$2,831	$1,651	$0	$0	$0	$0	$0	$0
32	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	25.00%	0.00%	0.00%	0.00%	0.00%
33	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	3.00	0.00	0.00	0.00	0.00
34	Release 2 Benefit	$0	$0	$11,646	$48,135	$73,756	$74,532	$74,532	$18,633	$0	$0	$0	$0
35	**Annual Benefit**	**$147**	**$1,356**	**$14,270**	**$50,966**	**$76,586**	**$76,183**	**$74,532**	**$18,633**	**$0**	**$0**	**$0**	**$0**
36	**CUMULATIVE**	**$147**	**$1,504**	**$15,774**	**$66,739**	**$143,326**	**$219,509**	**$294,041**	**$312,674**	**$312,674**	**$312,674**	**$312,674**	**$312,674**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
37	Capital benefit	$103	$950	$7,671	$26,091	$38,924	$38,486	$37,330	$9,332	$0	$0	$0	$0
38	Expense benefit	$31	$285	$1,603	$4,941	$7,254	$7,076	$6,729	$1,682	$0	$0	$0	$0
39	Non-earnings expense benefit	$13	$121	$4,995	$19,933	$30,409	$30,621	$30,474	$7,618	$0	$0	$0	$0
40	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
41	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
42	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
43	**Escalated Annual Benefit**	**$165**	**$1,541**	**$16,471**	**$59,962**	**$91,950**	**$93,365**	**$93,285**	**$23,810**	**$0**	**$0**	**$0**	**$0**
44	**Escalated Cumulative**	**$165**	**$1,705**	**$18,177**	**$78,139**	**$170,089**	**$263,453**	**$356,739**	**$380,548**	**$380,548**	**$380,548**	**$380,548**	**$380,548**

45	Peak annual benefit, as modeled	$76,586	The highest year on the Annual Benefit row above.
46	**Peak annual benefit, escalated**	**$93,365**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
47	**Uplift on peak**	**21.91%**	The % increase of peak annual benefit due to escalation.

GLOSSARY

Addressable Spend	General Ledger spend multiplied by the commodity code's share of its material group. The base the Improvement Range % is applied to.
Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Two factors apply in Step 4: E1 and E2, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the improvement. Assigned by commodity code and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation and was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-20C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Streamlined Supplier Management Non-Labor

Assumptions & Reference Rates
Supplier Management - Better planning enables us to streamline suppliers ahead of time

Line No.			Notes
	A. CONFIDENCE RATES		
1	Starting realization rate	75.00%	Contracted services and materials start at 75% before applying any other adjustments.
2	Maturity adjustment (percentage points)	5.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate ceiling	80.00%	Maximum realization rate allowed in the model. If the calculated rate exceeds the ceiling, it is capped at this level.
4	Realization rate	80.00%	Percentage of the improvement range expected to be captured.
5	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
6	**Confidence Factor (Realization × Exclusivity %)**	60.00%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION		
7	E1 - Value Driver scope	100.00%	Share of the value driver that remains in ERP scope after Enterprise Design.
8	E_MAB - Mobile as Built	N/A	Mobile As Built erosion is not applicable to this value driver.
9	E2 - Nuclear Generation	50.00%	Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
10	**Combined erosion factor**	99.79%	
	C. SPEND BASE		
11	Total GL non-labor spend (2024)	$11,457,000	Total non-labor General Ledger spend before any exclusions.
12	On commodity codes Supplier Management can improve	$7,372,823	Spend on commodity codes affected by Supplier Management.
13	Traced to a commodity code - benefit	$56,022	Benefit tied to a specific commodity code.
14	Traced to a material group - benefit	$21,344	Benefit tied to a material group, but not a specific commodity code.

D. IMPROVEMENT RANGE %[1]

	Level	Services Rate	Materials Rate	
15	High	3.00%	3.00%	Each impacted commodity code is assigned a tier (High, Medium, or Low) based on how directly Streamlined Supplier Management can impact the commodity code. No commodity code is assigned High for this driver. Examples of codes assigned Medium include professional services and veg management.
16	Medium	2.00%	2.00%	
17	Low	1.50%	1.50%	

	E. ADOPTION SCHEDULE		
18	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
19	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
20	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
21	Capital, all benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
22	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
23	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
24	Expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
25	Non-earnings expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-21
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Supply Chain Optimization and Materials Availability
Value Driver - Streamlined Warehouse Management

WP#	Workpaper Name
	Summary WPs
3-21	Testimony Table
3-21A	Streamlined Warehouse Management Summary
	Detail WPs
3-21B	Streamlined Warehouse Management Walkthrough
	Assumptions & Reference Rates WPs
3-21C	Assumptions & Reference Rates - Streamlined Warehouse Management

Workpaper 3-21
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Supply Chain Optimization and Materials Availability Benefits - Testimony Table

TABLE 3-38
SUPPLY CHAIN OPTIMIZATION AND MATERIALS AVAILABILITY BENEFIT CATEOGRY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Forecasting and Demand Planning	$ 0.6	$ 5.8	$ 47.4	$ 164.1	$ 249.6	$ 251.7	$ 249.1	$ 63.6	$ -	$ -	$ -	$ -	$ 1,031.9
2	Standardized Contract Management	0.3	3.2	30.2	107.6	164.4	166.4	165.6	42.3	-	-	-	-	680.1
3	Streamlined Supplier Management	0.2	1.5	16.5	60.0	91.9	93.4	93.3	23.8	-	-	-	-	380.5
4	Streamlined Warehouse Management	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.3	1.4	9.6
5	Inventory Optimization and Materials Mgmt	0.0	0.1	2.2	8.4	13.0	13.3	13.5	3.4	-	-	-	-	54.0
6	**ERP Total**	**$ 1.1**	**$ 10.7**	**$ 96.3**	**$ 340.2**	**$ 519.6**	**$ 526.0**	**$ 522.7**	**$ 134.3**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,156.2**
7	Better Rates and Terms	$ -	$ -	$ 1.7	$ 7.2	$ 11.6	$ 12.1	$ 12.3	$ 3.1	$ -	$ -	$ -	$ -	$ 48.0
8	**GIS Total**	**$ -**	**$ -**	**$ 1.7**	**$ 7.2**	**$ 11.6**	**$ 12.1**	**$ 12.3**	**$ 3.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48.0**
9	**Total**	**$ 1.1**	**$ 10.7**	**$ 98.0**	**$ 347.4**	**$ 531.2**	**$ 538.0**	**$ 535.0**	**$ 137.5**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,204.2**

Workpaper 3-21A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Warehouse Management
(Thousands of Dollars - Escalated)

Benefit Category	Supply Chain Optimization and Materials Availability
Value Driver	Streamlined Warehouse Management
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to warehouse operations due to standardized warehouse structure (EWM with defined storage types, bins, and activity areas), automated receiving via process-oriented storage control (POSC), warehouse-driven replenishment, and serial/batch traceability, improving picking, packing, shipment, and material accountability across Gas, Electric, Wildfire, and Major Emergency operations.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Streamlined Warehouse Management	602	308	911	$912	$467	$1,379
2	**Subtotal: Internal Labor**	**$602**	**$308**	**$911**	**$912**	**$467**	**$1,379**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$602**	**$308**	**$911**	**$912**	**$467**	**$1,379**
6	**Peak Annual Benefit, Un-escalated**	**$911**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Streamlined Warehouse Management	$0	$0	$0	$89	$512	$879	$911	$911	$911	$911	$911	$911	$6,944
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$89**	**$512**	**$879**	**$911**	**$911**	**$911**	**$911**	**$911**	**$911**	**$6,944**
10	Capital	$0	$0	$0	$59	$339	$581	$602	$602	$602	$602	$602	$602	$4,592
11	Expense incl. NEE	$0	$0	$0	$30	$173	$298	$308	$308	$308	$308	$308	$308	$2,351
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$89**	**$601**	**$1,480**	**$2,390**	**$3,301**	**$4,212**	**$5,122**	**$6,033**	**$6,944**	
13	**CUMULATIVE BENEFITS**	**$6,944**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Streamlined Warehouse Management	$0	$0	$0	$109	$645	$1,136	$1,208	$1,241	$1,274	$1,308	$1,343	$1,379	$9,644
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$109**	**$645**	**$1,136**	**$1,208**	**$1,241**	**$1,274**	**$1,308**	**$1,343**	**$1,379**	**$9,644**
16	Capital	$0	$0	$0	$69	$408	$713	$754	$769	$785	$800	$817	$833	$5,948
17	Expense incl. NEE	$0	$0	$0	$40	$238	$423	$455	$472	$489	$508	$527	$546	$3,696
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$109**	**$754**	**$1,891**	**$3,099**	**$4,340**	**$5,613**	**$6,921**	**$8,265**	**$9,644**	

Workpaper 3-21B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Warehouse Management
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	Electric Distribution Major Emergency	615	882
2	Electric Operations	12,118	2,968
3	Gas Operations	**3,292**	2,864
4	Wildfire Emergency & Operations	705	1,851
5	**TOTAL DIRECT TIME**	**$16,730**	**$8,565**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 8% applied to direct time for all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
6	Electric Distribution Major Emergency	615	882	8.00%	49	71	120
7	Electric Operations	12,118	2,968	8.00%	969	237	1,207
8	Gas Operations	3,292	2,864	8.00%	263	229	492
9	Wildfire Emergency & Operations	705	1,851	8.00%	56	148	205
10	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$16,730**	**$8,565**		**$1,338**	**$685**	**$2,024**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
11	Electric Distribution Major Emergency	49	71	60.00%	75.00%	45.00%	22	32	54
12	Electric Operations	969	237	60.00%	75.00%	45.00%	436	107	543
13	Gas Operations	263	229	60.00%	75.00%	45.00%	119	103	222
14	Wildfire Emergency & Operations	56	148	60.00%	75.00%	45.00%	25	67	92
15	**Pre-Erosion Net**	**$1,338**	**$685**				**$602**	**$308**	**$911**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
16	Capital	602	100.00%	602
17	Expense incl. NEE	308	100.00%	308
18	**TOTAL**	**$911**	**100.00%**	**$911**
19	**NET BENEFIT (POST-EROSION)**	**$911**		
20	**Capital**	**$602**		**66.14%**
21	**Expense incl. NEE**	**$308**		**33.86%**

Workpaper 3-21B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Warehouse Management
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
22	Release 3	May 2030	Jun 2031	May 2033	911
23	**Total**				**$911**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $910,630 = $88,534.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
22	Release 3 Ramp %	0.0%	0.0%	0.0%	9.7%	56.3%	96.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
23	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
24	Release 3 Benefit	$0	$0	$0	$89	$512	$879	$911	$911	$911	$911	$911	$911
25	**Annual Benefit**	**$0**	**$0**	**$0**	**$89**	**$512**	**$879**	**$911**	**$911**	**$911**	**$911**	**$911**	**$911**
26	**CUMULATIVE**	**$0**	**$0**	**$0**	**$89**	**$601**	**$1,480**	**$2,390**	**$3,301**	**$4,212**	**$5,122**	**$6,033**	6,944

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
27	Capital Benefit	$0	$0	$0	$59	$339	$581	$602	$602	$602	$602	$602	$602
28	Expense incl. NEE Benefit	$0	$0	$0	$30	$173	$298	$308	$308	$308	$308	$308	$308
29	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
30	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
31	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$109**	**$645**	**$1,136**	**$1,208**	**$1,241**	**$1,274**	**$1,308**	**$1,343**	**$1,379**
32	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$109**	**$754**	**$1,891**	**$3,099**	**$4,340**	**$5,613**	**$6,921**	**$8,265**	**$9,644**

33	Peak annual Benefit, as modeled	911	The highest year on the Annual Benefit row above.
34	**Peak annual Benefit, escalated**	**$1,379**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
35	**Uplift on peak**	**51.48%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-21C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Streamlined Warehouse Management

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management Overhead	Benefits Overhead	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization x Exclusivity)**	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity), multiplied together.

B. BENEFIT %

			Notes
6	**Improvement Range %[1] (flat, direct time)**	8.00%	One flat rate applied uniformly across the in-scope departments. There is no per-Functional-Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.

C. PROCESS SCOPE %

7	**Process Scope %**	1.20%	The share of a department's internal labor spend that this process touches.

D. EROSION

8	E1 - Value Driver scope	100.00%	Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A	Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A	Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%	
12	**Erosion factor - Capital**	100.00%	
13	**Erosion factor - Expense incl. NEE**	100.00%	

E. ADOPTION SCHEDULE

14	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36	Stabilization plus ramp. A release realizes its full annual amount from this month on. No release ramps for more than 36 months, whatever year it lands in.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-22
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Supply Chain Optimization and Materials Availability
Value Driver - Inventory Optimization and Materials Management

WP#	Workpaper Name
	Summary WPs
3-22	Testimony Table
3-22A	Inventory Optimization and Materials Management Summary
	Detail WPs
3-22B	Inventory Optimization and Materials Management Non-Labor
	Assumptions & Reference Rates WPs
3-22C	Assumptions & Reference Rates - Inventory Optimization and Materials Management Non-Labor

Workpaper 3-22
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Supply Chain Optimization and Materials Availability Benefits - Testimony Table

TABLE 3-38
SUPPLY CHAIN OPTIMIZATION AND MATERIALS AVAILABILITY BENEFIT CATEOGRY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Forecasting and Demand Planning	$ 0.6	$ 5.8	$ 47.4	$ 164.1	$ 249.6	$ 251.7	$ 249.1	$ 63.6	$ -	$ -	$ -	$ -	$ 1,031.9
2	Standardized Contract Management	0.3	3.2	30.2	107.6	164.4	166.4	165.6	42.3	-	-	-	-	680.1
3	Streamlined Supplier Management	0.2	1.5	16.5	60.0	91.9	93.4	93.3	23.8	-	-	-	-	380.5
4	Streamlined Warehouse Management	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.3	1.4	9.6
5	Inventory Optimization and Materials Mgmt	0.0	0.1	2.2	8.4	13.0	13.3	13.5	3.4	-	-	-	-	54.0
6	**ERP Total**	**$ 1.1**	**$ 10.7**	**$ 96.3**	**$ 340.2**	**$ 519.6**	**$ 526.0**	**$ 522.7**	**$ 134.3**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,156.2**
7	Better Rates and Terms	$ -	$ -	$ 1.7	$ 7.2	$ 11.6	$ 12.1	$ 12.3	$ 3.1	$ -	$ -	$ -	$ -	$ 48.0
8	**GIS Total**	**$ -**	**$ -**	**$ 1.7**	**$ 7.2**	**$ 11.6**	**$ 12.1**	**$ 12.3**	**$ 3.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48.0**
9	**Total**	**$ 1.1**	**$ 10.7**	**$ 98.0**	**$ 347.4**	**$ 531.2**	**$ 538.0**	**$ 535.0**	**$ 137.5**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,204.2**

Workpaper 3-22A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Inventory Optimization and Materials Management
(Thousands of Dollars - Escalated)

Benefit Category	Supply Chain Optimization and Materials Availability
Value Driver	Inventory Optimization and Materials Management
Calculation Method	Non-Labor

DEFINITION

Reduced material spend by reducing overall inventory levels and carrying cost through standardized master data (correct classification for inspection, stocking, handling, and planning), SAP standard inventory processes replacing custom programs, system-generated cycle counts, and improved demand visibility from MRP-generated procurement.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
1	**Internal Labor**	**$0**	**$0**	**$0**			
2	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3	**Non-Labor Sourcing**	**$10,098**	**$846**	**$10,944**	**$12,423**	**$1,041**	**$13,464**
4	**TOTAL VALUE DRIVER BENEFIT**	**$10,098**	**$846**	**$10,944**	**$12,423**	**$1,041**	**$13,464**
5	**Peak Annual Benefit, Un-escalated**	**$10,866**					
6	**Peak Benefit Reached**	**2033**					

YEAR OVER YEAR, UN-ESCALATED

							Peak Benefit Reached							
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
7	Non-labor sourcing	$10	$90	$1,855	$7,134	$10,832	$10,866	$10,756	$2,689	$0	$0	$0	$0	$44,232
8	**TOTAL: ALL COMPONENTS**	**$10**	**$90**	**$1,855**	**$7,134**	**$10,832**	**$10,866**	**$10,756**	**$2,689**	**$0**	**$0**	**$0**	**$0**	**$44,232**
9	Capital	$7	$66	$1,685	$6,571	$9,994	$10,040	$9,959	$2,490	$0	$0	$0	$0	$40,813
10	Expense incl. NEE	$3	$23	$170	$564	$838	$826	$797	$199	$0	$0	$0	$0	$3,419
11	**CUMULATIVE**	**$10**	**$100**	**$1,954**	**$9,089**	**$19,921**	**$30,787**	**$41,543**	**$44,232**	**$44,232**	**$44,232**	**$44,232**	**$44,232**	
12	**CUMULATIVE BENEFITS**	**$44,232**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
13	Non-labor sourcing	$11	$102	$2,151	$8,428	$13,036	$13,331	$13,464	$3,434	$0	$0	$0	$0	$53,957
14	**TOTAL, ALL COMPONENTS, ESCALATED**	**$11**	**$102**	**$2,151**	**$8,428**	**$13,036**	**$13,331**	**$13,464**	**$3,434**	**$0**	**$0**	**$0**	**$0**	**$53,957**
15	Capital	$8	$76	$1,956	$7,768	$12,033	$12,321	$12,466	$3,179	$0	$0	$0	$0	$49,807
16	Expense incl. NEE	$3	$26	$195	$660	$1,003	$1,010	$998	$255	$0	$0	$0	$0	$4,150
17	**CUMULATIVE, ESCALATED**	**$11**	**$113**	**$2,264**	**$10,692**	**$23,728**	**$37,059**	**$50,523**	**$53,957**	**$53,957**	**$53,957**	**$53,957**	**$53,957**	

Workpaper 3-22B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Inventory Optimization and Materials Management Non-Labor
(Thousands of Dollars - Escalated)

STEP 1 OF 4: ADDRESSABLE SPEND

The analysis starts with General Ledger spend, keeps only spend tied to addressable commodity codes, and allocates each material group across its commodity codes based on purchase-order spend.

Line No.	Buildup	Amount
1	Total GL non-labor spend (2024)	$11,457,000
2	On commodity codes Inventory Management can improve	$1,425,366
3	**Addressable spend, allocated to commodity code**	**$944,544**

	Split	Addressable Spend
4	Materials	$944,544
5	**TOTAL ADDRESSABLE**	**$944,544**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

Every commodity code is classified High, Medium or Low by how much improvement ERP enables, and the rate also depends on whether the spend is materials or services. The rate table is on Assum

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Split	**Addressable Spend**	**Improvement Range %[1] (blended)**	**Gross Benefit**
6	Materials	$944,544	2.00%	$18,858
7	**TOTAL RAW BENEFIT**	**$944,544**	**2.00%**	**$18,858**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY)

A single confidence factor is applied to the whole pool. No overhead is included. The factor is the Realization Rate multiplied by Exclusivity, both set on the Assumptions workpaper.

HOW THE CONFIDENCE FACTOR IS BUILT

8	Starting realization rate	75.00%
9	+ Maturity adjustment (percentage points)	10.00%
10	Held at ceiling	80.00%
11	Realization Rate	80.00%
12	x Exclusivity %	75.00%
13	**CONFIDENCE FACTOR**	**60.00%**

	Formula Walkthrough	*A*	*B*	*C*	*D = B x C*	*E = A x D*
	Traceability	**Gross Benefit**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Benefit**
14	Commodity code and material group combined	$18,858	80.00%	75.00%	60.00%	$11,315
15	**Pre-Erosion Net**					**$11,315**

STEP 4 OF 4: EROSION

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*	*D*	*E*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**	**Capital**	**Expense incl. NEE**
16	All other orgs	$10,573	100.00%	$10,573	$10,098	$475
17	Nuclear Generation	$741	50.00%	$371	$0	$371
18	**TOTAL**	**$11,315**	**96.72%**	**$10,944**	**$10,098**	**$846**

19	**NET BENEFIT (POST-EROSION)**	**$10,944**	
20	**Capital**	**$10,098**	**92.27%**
21	**Expense incl. NEE**	**$846**	**7.73%**

Workpaper 3-22B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Inventory Optimization and Materials Management Non-Labor
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate	Capital	Non-earnings expense
22	Release 1	Jul 2027	Aug 2028	Jul 2030	$188	$139	$1
23	Release 2	Mar 2029	Apr 2030	Mar 2032	$10,756	$9,959	$453
24	**Total**				**$10,944**		

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $187,546 = $9,768.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
25	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	58.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
26	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
27	Release 1 Benefit	$10	$90	$174	$188	$188	$109	$0	$0	$0	$0	$0	$0
28	Release 2 Ramp %	0.00%	0.00%	15.63%	64.58%	98.96%	100.00%	100.00%	25.00%	0.00%	0.00%	0.00%	0.00%
29	Release 2 Months Realized	0.00	0.00	1.88	7.75	11.88	12.00	12.00	3.00	0.00	0.00	0.00	0.00
30	Release 2 Benefit	$0	$0	$1,681	$6,947	$10,644	$10,756	$10,756	$2,689	$0	$0	$0	$0
31	**Annual Benefit**	**$10**	**$90**	**$1,855**	**$7,134**	**$10,832**	**$10,866**	**$10,756**	**$2,689**	**$0**	**$0**	**$0**	**$0**
32	**CUMULATIVE**	**$10**	**$100**	**$1,954**	**$9,089**	**$19,921**	**$30,787**	**$41,543**	**$44,232**	**$44,232**	**$44,232**	**$44,232**	**$44,232**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
33	Capital Benefit	$7	$66	$1,685	$6,571	$9,994	$10,040	$9,959	$2,490	$0	$0	$0	$0
34	Expense Benefit	$3	$23	$98	$270	$388	$372	$344	$86	$0	$0	$0	$0
35	Non-earnings Expense Benefit	$0	$0	$71	$293	$449	$454	$453	$113	$0	$0	$0	$0
36	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
37	Expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
38	Non-earnings expense escalation rate	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
39	**Escalated Annual Benefit**	**$11**	**$102**	**$2,151**	**$8,428**	**$13,036**	**$13,331**	**$13,464**	**$3,434**	**$0**	**$0**	**$0**	**$0**
40	**Escalated Cumulative**	**$11**	**$113**	**$2,264**	**$10,692**	**$23,728**	**$37,059**	**$50,523**	**$53,957**	**$53,957**	**$53,957**	**$53,957**	**$53,957**

41	Peak annual Benefit, as modeled	$10,866	The highest year on the Annual Benefit row above.
42	**Peak annual Benefit, escalated**	**$13,464**	The highest year on the Escalated Annual Benefit row. Escalation can move which year that is, so this is not simply the peak above times one rate.
43	**Uplift on peak**	**23.91%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Addressable Spend	General Ledger spend multiplied by the commodity code's share of its material group. The base the Improvement Range % is applied to.
Commodity Code	The spend cube code that identifies what was purchased. Codes are also used to map spend to external labor roles
Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Erosion	An adjustment applied to remove benefits associated with out-of-scope activities. Two factors apply in Step 4: E1 and E2, each defined on the Assumptions workpaper.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Addressable spend multiplied by the applicable improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of addressable spend expected to be reduced through the improvement. Assigned by commodity code and applied in Step 2.
Material Group	A purchasing category used to record third-party spend in the General Ledger; it may include multiple commodity codes.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation and was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.
Spend Cube	PG&E third-party spend by commodity code. Used to allocate each GL line across the commodities purchased.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-22C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Inventory Optimization and Materials Management Non-Labor

Assumptions & Reference Rates

Inventory Management - Better visibility into parts usage reduces the need to carry unnecessary stock

Line No.			Notes
	A. CONFIDENCE RATES		
1	Starting realization rate	75.00%	Contracted services and materials start at 75% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate ceiling	80.00%	Maximum realization rate allowed in the model. If the calculated rate exceeds the ceiling, it is capped at this level.
4	Realization rate	80.00%	Percentage of the improvement range expected to be captured.
5	Exclusivity %	75.00%	Share attributable to ERP rather than to other work already under way.
6	**Confidence Factor (Realization × Exclusivity %)**	60.00%	The two rows above (Realization Rate and Exclusivity %), multiplied together. It is set for the benefit pool rather than for each role.
	B. EROSION		
7	E1 - Value Driver scope	100.00%	Share of the value driver that remains in ERP scope after Enterprise Design.
8	E_MAB - Mobile as Built	N/A	Mobile As Built erosion is not applicable to this value driver.
9	E2 - Nuclear Generation	50.00%	Non-Labor Sourcing retains 50% of net Benefit for the in-scope supply-chain work.
10	**Combined erosion factor**	96.72%	
	C. SPEND BASE		
11	Total GL non-labor spend (2024)	$11,457,000	Total non-labor General Ledger spend before any exclusions.
12	On commodity codes Inventory Management can improve	$1,425,366	Spend on commodity codes affected by Inventory Management.
13	Traced to a commodity code - Benefit	$0	Benefit tied to a specific commodity code.
14	Traced to a material group - Benefit	$10,954	Benefit tied to a material group, but not a specific commodity code.

D. IMPROVEMENT RANGE %[1]

Line No.	Level	Services Rate	Materials Rate	
15	High	3.00%	3.00%	Each impacted commodity code is assigned a tier (High, Medium, or Low) based on how directly the value driver applies to that commodity code. Higher tiers reflect commodity codes where the value driver has the most direct impact on spend. The applied Improvement Range also varies by whether the spend is services or materials.
16	Medium	2.00%	2.00%	
17	Low	1.50%	1.50%	

	E. ADOPTION SCHEDULE		
18	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
19	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
20	**Full run-rate (months after start of stabilization)**	**36**	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION. The benefit is split between capital and expense before applying their respective escalation rates.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
21	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
22	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
23	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
24	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
25	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-23
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Supply Chain Optimization and Materials Availability
Value Driver - Better Rates & Terms

WP#	Workpaper Name
	Summary WPs
3-23	Testimony Table
3-23A	Better Rates & Terms Summary
	Detail WPs
3-23B	Better Rates & Terms - Non-Labor
	Assumptions & Reference Rates WPs
3-23C	Better Rates & Terms - Assumptions - Non-Labor

Workpaper 3-23
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Supply Chain Optimization and Materials Availability Benefits - Testimony Table

TABLE 3-38
SUPPLY CHAIN OPTIMIZATION AND MATERIALS AVAILABILITY BENEFIT CATEOGRY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Forecasting and Demand Planning	$ 0.6	$ 5.8	$ 47.4	$ 164.1	$ 249.6	$ 251.7	$ 249.1	$ 63.6	$ -	$ -	$ -	$ -	$ 1,031.9
2	Standardized Contract Management	0.3	3.2	30.2	107.6	164.4	166.4	165.6	42.3	-	-	-	-	680.1
3	Streamlined Supplier Management	0.2	1.5	16.5	60.0	91.9	93.4	93.3	23.8	-	-	-	-	380.5
4	Streamlined Warehouse Management	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.3	1.4	9.6
5	Inventory Optimization and Materials Mgmt	0.0	0.1	2.2	8.4	13.0	13.3	13.5	3.4	-	-	-	-	54.0
6	**ERP Total**	**$ 1.1**	**$ 10.7**	**$ 96.3**	**$ 340.2**	**$ 519.6**	**$ 526.0**	**$ 522.7**	**$ 134.3**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,156.2**
7	Better Rates and Terms	$ -	$ -	$ 1.7	$ 7.2	$ 11.6	$ 12.1	$ 12.3	$ 3.1	$ -	$ -	$ -	$ -	$ 48.0
8	**GIS Total**	**$ -**	**$ -**	**$ 1.7**	**$ 7.2**	**$ 11.6**	**$ 12.1**	**$ 12.3**	**$ 3.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48.0**
9	**Total**	**$ 1.1**	**$ 10.7**	**$ 98.0**	**$ 347.4**	**$ 531.2**	**$ 538.0**	**$ 535.0**	**$ 137.5**	**$ 1.3**	**$ 1.3**	**$ 1.3**	**$ 1.4**	**$ 2,204.2**

Workpaper 3-23A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Better Rates & Terms
(Thousands of Dollars - Escalated)

Benefit Category	Supply Chain Optimization and Materials Availability
Value Driver	Better Rates & Terms
Calculation Method	Non-Labor

DEFINITION

Improved commercial terms with remote sensing vendors and reduced data storage cost, achieved through consolidated sourcing.

BENEFIT BUILD: PEAK BENEFITS IN A YEAR

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live and mature.

		Un-Escalated			Escalated		
Line No.	**Component**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Exclusivity)**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Exclusivity)**
1	Internal Labor	$0	$0	$0	$0	$0	$0
2	External Labor	$0	$0	$0	$0	$0	$0
3	Non-Labor Sourcing	$9,832	$0	$9,832	$13,600	$0	$13,600
4	**TOTAL VALUE DRIVER BENEFIT**	**$9,832**	**$0**	**$9,832**	**$13,600**	**$0**	**$13,600**
5	**Peak Annual Benefit**	**$9,832**					
6	**Peak Benefit Reached**	**2033**					

YEAR OVER YEAR, UN-ESCALATED

									Peak Benefit Reached	Peak Benefit					
	Component	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
7	Non-labor sourcing	$0	$0	$0	$0	$1,475	$6,096	$9,636	$9,832	$9,832	$2,458	$0	$0	$0	$0	$39,329
8	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$0**	**$1,475**	**$6,096**	**$9,636**	**$9,832**	**$9,832**	**$2,458**	**$0**	**$0**	**$0**	**$0**	**$39,329**
9	Capital	$0	$0	$0	$0	$1,475	$6,096	$9,636	$9,832	$9,832	$2,458	$0	$0	$0	$0	$39,329
10	Expense Incl. NEE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	**CUMULATIVE**	**$0**	**$0**	**$0**	**$0**	**$1,475**	**$7,571**	**$17,207**	**$27,039**	**$36,871**	**$39,329**	**$39,329**	**$39,329**	**$39,329**	**$39,329**	
12	**CUMULATIVE BENEFITS**	**$39,329**														

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own workpaper, where the rate is shown year by year.

	Component	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
13	Non-labor sourcing	$0	$0	$0	$0	$1,713	$7,206	$11,602	$12,066	$12,307	$3,139	$0	$0	$0	$0	$48,032
14	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$0**	**$1,713**	**$7,206**	**$11,602**	**$12,066**	**$12,307**	**$3,139**	**$0**	**$0**	**$0**	**$0**	**$48,032**
15	Capital, escalated	$0	$0	$0	$0	$1,713	$7,206	$11,602	$12,066	$12,307	$3,139	$0	$0	$0	$0	$48,032
16	Expense Incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$0**	**$1,713**	**$8,919**	**$20,521**	**$32,586**	**$44,893**	**$48,032**	**$48,032**	**$48,032**	**$48,032**	**$48,032**	

Workpaper 3-23B
Pacific Gas and Electric Company
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PEAK ANNUAL BENEFIT, WITH CONFIDENCE ADJUSTMENT

A Confidence Factor is applied to each value lever. The factor is the Realization Rate multiplied by Exclusivity Rate, both set on the Assumptions workpaper.

Line No.	Value Lever	Spend Category	Annual Benefits	Capital %	Realization Rate %	Exclusivity %	Confidence Factor %	Net Annual Savings	Peak Annual Benefit
1	Vendor Optimization	Multi-year contract savings (LiDAR)	$3,772	100.00%	75.00%	75.00%	56.25%	$2,829	$2,122
2	Vendor Optimization	Multi-year contract savings (Non-LiDAR)	$2,286	100.00%	75.00%	75.00%	56.25%	$1,714	$1,286
3	Vendor Optimization	Category Manager - Contract Management and LoB Time Savings	$900	100.00%	75.00%	75.00%	56.25%	$675	$506
4	Data Storage	Annual data storage cost	$1,065	100.00%	100.00%	75.00%	75.00%	$1,065	$799
5	Reduced ad-hoc data collection	Land Management	$492	100.00%	75.00%	75.00%	56.25%	$369	$277
6	Reduced ad-hoc data collection	Electric ad-hoc data collection	$4,920	100.00%	75.00%	75.00%	56.25%	$3,690	$2,768
7	Reduced ad-hoc data collection	Gas ad-hoc data collection	$3,690	100.00%	75.00%	75.00%	56.25%	$2,768	$2,076
8	**TOTAL**							**$13,110**	**$9,832**

YEAR-OVER-YEAR SCHEDULE, UN-ESCALATED

Each line item earns its run-rate benefit once it has finished ramping. The annual

	Line Item	Benefit Starts	Run Rate Reached	Benefits Stop	Annual Benefit at Run Rate
9	Multi-year contract savings (LiDAR)	Apr 2030	Apr 2032	Apr 2035	$2,122
10	Multi-year contract savings (Non-LiDAR)	Apr 2030	Apr 2032	Apr 2035	$1,286
11	Category Manager - Contract Management and LoB Time Savings	Apr 2030	Apr 2032	Apr 2035	$506
12	Annual data storage cost	Apr 2030	Apr 2032	Apr 2035	$799
13	Land Management	Apr 2030	Apr 2032	Apr 2035	$277
14	Electric ad-hoc data collection	Apr 2030	Apr 2032	Apr 2035	$2,768
15	Gas ad-hoc data collection	Apr 2030	Apr 2032	Apr 2035	$2,076
16	**Total**				**$9,832**

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
17	Months Realized	0.00	0.00	0.00	0.00	1.80	7.44	11.76	12.00	12.00	3.00	0.00	0.00	0.00	0.00	48.00
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$1,475**	**$6,096**	**$9,636**	**$9,832**	**$9,832**	**$2,458**	**$0**	**$0**	**$0**	**$0**	**$39,329**
19	Capital	$0	$0	$0	$0	$1,475	$6,096	$9,636	$9,832	$9,832	$2,458	$0	$0	$0	$0	$39,329
20	Expense incl. NEE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	CUMULATIVE	$0	$0	$0	$0	$1,475	$7,571	$17,207	$27,039	$36,871	$39,329	$39,329	$39,329	$39,329	$39,329	

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-23C, Annual Escalation.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
22	Capital benefit, before escalation	$0	$0	$0	$0	$1,475	$6,096	$9,636	$9,832	$9,832	$2,458	$0	$0	$0	$0	$39,329
23	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
25	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
26	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$1,713**	**$7,206**	**$11,602**	**$12,066**	**$12,307**	**$3,139**	**$0**	**$0**	**$0**	**$0**	**$48,032**
27	Capital benefit, escalated	$0	$0	$0	$0	$1,713	$7,206	$11,602	$12,066	$12,307	$3,139	$0	$0	$0	$0	$48,032
28	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
29	Cumulative, escalated	$0	$0	$0	$0	$1,713	$8,919	$20,521	$32,586	$44,893	$48,032	$48,032	$48,032	$48,032	$48,032	
30	Peak Annual Benefit, before escalation	$9,832														
31	Peak Annual Benefit, Escalated	$13,600														

GLOSSARY

Confidence Factor	Realization Rate multiplied by Exclusivity. Applied to gross benefit in Step 3 to calculate net benefit.
Exclusivity	Percentage of the benefit attributable to ERP, excluding benefits associated with other initiatives.
Months Realized	The number of full-rate months of benefit earned in a year. A month that is still ramping counts as a fraction.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Peak Annual Benefit	The full annual benefit once every line item has reached its run rate.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation and was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions tab.
Run Rate	The full annual benefit of a line item once it has finished ramping.

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ERP and GIS Transformation
Better Rates & Terms - Assumptions - Non-Labor
(Thousands of Dollars - Escalated)

Assumptions & Reference Rates - Better Rates & Terms

A. REALIZATION RATE

Line No.		Value
1	Realization Rate for annual data storage cost	100.00%
2	Realization Rate for all other spend categories	75.00%

B. EXCLUSIVITY FACTOR

		Value
3	Exclusivity Factor (program-wide, flat)	75.00%

ANNUAL ESCALATION

~3.6% annual escalation, compounding, applied after exclusivity, at the rates below by year and cost type.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
4	Capital, all benefit types	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183
5	Expense, internal labor	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976
6	Non-earnings expense, internal labor	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976
7	Expense, all other benefit types	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580
8	Non-earnings expense, all other benefit types	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580

C. CAPITAL / EXPENSE SPLIT

		Value
9	Capital %	100.00%
10	Expense %	0.00%

Workpaper 3-24
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Financial Discipline and Performance Management
Value Driver - Standardized Finance Processes and Planning

WP#	Workpaper Name
	Summary WPs
3-24	Testimony Table
3-24A	Standardized Finance Processes and Planning Summary
	Detail WPs
3-24B	Standardized Finance Processes and Planning Walkthrough
	Assumptions & Reference Rates WPs
3-24C	Assumptions & Reference Rates - Standardized Finance Processes and Planning Internal Labor

Financial Discipline and Performance Management Benefits - Testimony Table

TABLE 3-39
FINANCIAL DISCIPLINE AND PERFORMANCE MANAGEMENT BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Standardized Finance Processes and Planning	$ -	$ -	$ -	$ 0.3	$ 2.0	$ 3.6	$ 3.9	$ 4.0	$ 4.2	$ 4.3	$ 4.5	$ 4.7	$ 31.5
2	Standardized Accounting Processes and Planning	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.4	1.4	9.5
3	**ERP Total**	**$ -**	**$ -**	**$ -**	**$ 0.4**	**$ 2.6**	**$ 4.7**	**$ 5.0**	**$ 5.2**	**$ 5.4**	**$ 5.6**	**$ 5.8**	**$ 6.1**	**$ 41.0**

Workpaper 3-24A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Finance Processes and Planning
(Thousands of Dollars - Escalated)

Benefit Category	Financial Discipline and Performance Management
Value Driver	Standardized Finance Processes and Planning
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the Finance organization due to consolidated planning in SAP Analytics Cloud (SAC) with standardized forecasting (auto-calculation with flexible overrides), defined granularity across all FP&A areas, and streamlined overhead allocation, accelerating periodic reporting, revenue planning, income statement planning, and long-term forecasting.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Standardized Finance Processes and Planning	$0	$2,626	$2,626	$0	$4,652	$4,652
2	**Subtotal: Internal Labor**	**$0**	**$2,626**	**$2,626**	**$0**	**$4,652**	**$4,652**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$2,626**	**$2,626**	**$0**	**$4,652**	**$4,652**
6	**Peak Annual Benefit, Un-escalated**	**$2,626**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Standardized Finance Processes and P	$0	$0	$0	$255	$1,477	$2,534	$2,626	$2,626	$2,626	$2,626	$2,626	$2,626	$20,020
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$255**	**$1,477**	**$2,534**	**$2,626**	**$2,626**	**$2,626**	**$2,626**	**$2,626**	**$2,626**	**$20,020**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$0	$0	$0	$255	$1,477	$2,534	$2,626	$2,626	$2,626	$2,626	$2,626	$2,626	$20,020
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$255**	**$1,732**	**$4,266**	**$6,892**	**$9,518**	**$12,143**	**$14,769**	**$17,394**	**$20,020**	
13	**CUMULATIVE BENEFITS**	**$20,020**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Standardized Finance Processes and P	$0	$0	$0	$337	$2,022	$3,601	$3,870	$4,015	$4,166	$4,322	$4,484	$4,652	$31,470
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$337**	**$2,022**	**$3,601**	**$3,870**	**$4,015**	**$4,166**	**$4,322**	**$4,484**	**$4,652**	**$31,470**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Expense incl. NEE	$0	$0	$0	$337	$2,022	$3,601	$3,870	$4,015	$4,166	$4,322	$4,484	$4,652	$31,470
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$337**	**$2,359**	**$5,960**	**$9,830**	**$13,846**	**$18,012**	**$22,334**	**$26,818**	**$31,470**	

Workpaper 3-24B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Finance Processes and Planning
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

	Formula Walkthrough	*A*	*B*
Line No.	**Department**	**Capital Spend**	**Expense incl. NEE Spend**
1	Business Finance and Planning / Business Finance	0	20,998
2	Controller / Finance Syst, Proc. Enablement & Payroll	0	3,478
3	and Corporate Development / Financial Forecasting & Analysis	0	4,696
4	**TOTAL DIRECT SPEND**	**$0**	**$29,173**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 20% applied to direct time for all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
5	Business Finance and Planning / Business Finance	0	20,998	20.00%	0	4,200	4,200
6	Controller / Finance Syst, Proc. Enablement & Payroll	0	3,478	20.00%	0	696	696
7	and Corporate Development / Financial Forecasting & Analysis	0	4,696	20.00%	0	939	939
8	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$0**	**$29,173**		**$0**	**$5,835**	**$5,835**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
9	Business Finance and Planning / Business Finance	0	4,200	60.00%	75.00%	45.00%	0	1,890	1,890
10	Controller / Finance Syst, Proc. Enablement & Payroll	0	696	60.00%	75.00%	45.00%	0	313	313
11	and Corporate Development / Financial Forecasting & Analysis	0	939	60.00%	75.00%	45.00%	0	423	423
12	**Pre-Erosion Net**	**$0**	**$5,835**				**$0**	**$2,626**	**$2,626**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
13	Capital	0	100.00%	0
14	Expense incl. NEE	2,626	100.00%	2,626
15	**TOTAL**	**$2,626**	**100.00%**	**$2,626**
16	**NET BENEFIT (POST-EROSION)**	**$2,626**		
17	Capital	$0		0.00%
18	Expense incl. NEE	$2,626		100.00%

Workpaper 3-24B
Pacific Gas and Electric Company
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Value Driver - Standardized Finance Processes and Planning
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
19	Release 3 Benefit	May 2030	Jun 2031	May 2033	$2,626
20	**Total**				**$2,626**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $2,625,538 = $255,261.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
21	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
22	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
23	Release 3 Benefit	$0	$0	$0	$255	$1,477	$2,534	$2,626	$2,626	$2,626	$2,626	$2,626	$2,626
24	**Annual Benefit**	**$0**	**$0**	**$0**	**$255**	**$1,477**	**$2,534**	**$2,626**	**$2,626**	**$2,626**	**$2,626**	**$2,626**	**$2,626**
25	**CUMULATIVE**	**$0**	**$0**	**$0**	**$255**	**$1,732**	**$4,266**	**$6,892**	**$9,518**	**$12,143**	**$14,769**	**$17,394**	**$20,020**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
26	Expense incl. NEE Benefit	$0	$0	$0	$255	$1,477	$2,534	$2,626	$2,626	$2,626	$2,626	$2,626	$2,626
27	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
28	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$337**	**$2,022**	**$3,601**	**$3,870**	**$4,015**	**$4,166**	**$4,322**	**$4,484**	**$4,652**
29	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$337**	**$2,359**	**$5,960**	**$9,830**	**$13,846**	**$18,012**	**$22,334**	**$26,818**	**$31,470**

30	Peak annual Benefit, as modeled	2,626	The highest year on the Annual Benefit row above.
31	**Peak annual Benefit, escalated**	**$4,652**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
32	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

Workpaper 3-24B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Finance Processes and Planning
(Thousands of Dollars - Escalated)

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-24C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Finance Processes and Planning Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.
	B. BENEFIT %				
6	**Improvement Range %[1] (flat, direct time)**	20.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.
	C. PROCESS SCOPE %				
7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.
	D. EROSION				
8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			
	E. ADOPTION SCHEDULE				
14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-25
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Financial Discipline and Performance Management
Value Driver - Standardized Accounting Processes and Planning

WP#	Workpaper Name
	Summary WPs
3-25	Testimony Table
3-25A	Standardized Accounting Processes and Planning Summary
	Detail WPs
3-25B	Standardized Accounting Processes and Planning Walkthrough
	Assumptions & Reference Rates WPs
3-25C	Assumptions & Reference Rates - Standardized Accounting Processes and Planning Internal Labor

Workpaper 3-25
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Financial Discipline and Performance Management Benefits - Testimony Table

TABLE 3-39
FINANCIAL DISCIPLINE AND PERFORMANCE MANAGEMENT BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Standardized Finance Processes and Planning	$ -	$ -	$ -	$ 0.3	$ 2.0	$ 3.6	$ 3.9	$ 4.0	$ 4.2	$ 4.3	$ 4.5	$ 4.7	$ 31.5
2	Standardized Accounting Processes and Planning	-	-	-	0.1	0.6	1.1	1.2	1.2	1.3	1.3	1.4	1.4	9.5
3	**ERP Total**	**$ -**	**$ -**	**$ -**	**$ 0.4**	**$ 2.6**	**$ 4.7**	**$ 5.0**	**$ 5.2**	**$ 5.4**	**$ 5.6**	**$ 5.8**	**$ 6.1**	**$ 41.0**

Workpaper 3-25A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Accounting Processes and Planning
(Thousands of Dollars - Escalated)

Benefit Category	Financial Discipline and Performance Management
Value Driver	Standardized Accounting Processes and Planning
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the Finance organization due to standardized FERC accounting (custom field on all cost objects and transactions), structured accounting assignments eliminating unknown usage, automated corporate allocations, and real-time budget consumption visibility (AVAC), accelerating accounting close, tax reporting, and capital project accounting.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense	Net Benefit (Post-Erosion)
	Internal Labor						
1	Standardized Accounting Processes and Planning	$0	$796	$796	$0	$1,411	$1,411
2	**Subtotal: Internal Labor**	**$0**	**$796**	**$796**	**$0**	**$1,411**	**$1,411**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$796**	**$796**	**$0**	**$1,411**	**$1,411**
6	**Peak Annual Benefit, Un-escalated**	**$796**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Standardized Accounting Processes and Planning	$0	$0	$0	$77	$448	$769	$796	$796	$796	$796	$796	$796	$6,071
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$77**	**$448**	**$769**	**$796**	**$796**	**$796**	**$796**	**$796**	**$796**	**$6,071**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$0	$0	$0	$77	$448	$769	$796	$796	$796	$796	$796	$796	$6,071
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$77**	**$525**	**$1,294**	**$2,090**	**$2,886**	**$3,682**	**$4,479**	**$5,275**	**$6,071**	
13	**CUMULATIVE BENEFITS**	**$6,071**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Standardized Accounting Processes and Planning	$0	$0	$0	$102	$613	$1,092	$1,174	$1,218	$1,263	$1,311	$1,360	$1,411	$9,544
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$102**	**$613**	**$1,092**	**$1,174**	**$1,218**	**$1,263**	**$1,311**	**$1,360**	**$1,411**	**$9,544**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Expense incl. NEE	$0	$0	$0	$102	$613	$1,092	$1,174	$1,218	$1,263	$1,311	$1,360	$1,411	$9,544
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$102**	**$715**	**$1,807**	**$2,981**	**$4,199**	**$5,462**	**$6,773**	**$8,133**	**$9,544**	

Workpaper 3-25B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Accounting Processes and Planning
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	Controller / Corporate Accounting	0	13,843
2	Controller / Tax	0	3,424
3	Treasury and Internal Audit / Accounts Payable	0	2,035
4	**TOTAL DIRECT SPEND**	**$0**	**$19,302**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 10% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
5	Controller / Corporate Accounting	0	13,843	10.00%	0	1,384	1,384
6	Controller / Tax	0	3,424	10.00%	0	342	342
7	Treasury and Internal Audit / Accounts Payable	0	2,035	10.00%	0	204	204
8	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$0**	**$19,302**		**$0**	**$1,930**	**$1,930**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
9	Controller / Corporate Accounting	0	1,384	55.00%	75.00%	41.25%	0	571	571
10	Controller / Tax	0	342	55.00%	75.00%	41.25%	0	141	141
11	Treasury and Internal Audit / Accounts Payal	0	204	55.00%	75.00%	41.25%	0	84	84
12	**Pre-Erosion Net**	**$0**	**$1,930**				**$0**	**$796**	**$796**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion**
13	Capital	0	100.00%	0
14	Expense incl. NEE	796	100.00%	796
15	**TOTAL**	**$796**	**100.00%**	**$796**
16	**NET BENEFIT (POST-EROSION)**	**$796**		
17	Capital	$0		0.00%
18	Expense incl. NEE	$796		100.00%

Workpaper 3-25B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Accounting Processes and Planning
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
19	Release 3 Benefit	May 2030	Jun 2031	May 2033	$796
20	**Total**				**$796**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $796,208 = $77,409.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
20	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
21	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
22	Release 3 Benefit	$0	$0	$0	$77	$448	$769	$796	$796	$796	$796	$796	$796
23	**Annual Benefit**	**$0**	**$0**	**$0**	**$77**	**$448**	**$769**	**$796**	**$796**	**$796**	**$796**	**$796**	**$796**
24	**CUMULATIVE**	**$0**	**$0**	**$0**	**$77**	**$525**	**$1,294**	**$2,090**	**$2,886**	**$3,682**	**$4,479**	**$5,275**	**$6,071**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
25	Expense Benefit	$0	$0	$0	$77	$448	$769	$796	$796	$796	$796	$796	$796
26	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
27	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$102**	**$613**	**$1,092**	**$1,174**	**$1,218**	**$1,263**	**$1,311**	**$1,360**	**$1,411**
28	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$102**	**$715**	**$1,807**	**$2,981**	**$4,199**	**$5,462**	**$6,773**	**$8,133**	**$9,544**

29	Peak annual Benefit, as modeled	796	The highest year on the Annual Benefit row above.
30	**Peak annual Benefit, escalated**	**$1,411**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
31	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-25C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Accounting Processes and Planning Internal Labor
Assumptions & Reference Rates - Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	5.00%	5.00%	5.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	55.00%	30.00%	30.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	41.25%	22.50%	22.50%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. BENEFIT %

6	**Improvement Range %[1] (flat, direct time)**	10.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.

C. PROCESS SCOPE %

7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.

D. EROSION

8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			

E. ADOPTION SCHEDULE

14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
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21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-26
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Workforce Enablement and HR Process Improvement
Value Driver - Automated Resource Planning

WP#	Workpaper Name
	Summary WPs
3-26	Testimony Table
3-26A	Automated Resource Planning Summary
	Detail WPs
3-26B	Automated Resource Planning Walkthrough
	Assumptions & Reference Rates WPs
3-26C	Assumptions & Reference Rates - Automated Resource Planning Internal Labor

Workpaper 3-26
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Workforce Enablement and HR Process Improvement Benefits - Testimony Table

TABLE 3-40
WORKFORCE ENABLEMENT AND HR PROCESS IMPROVEMENT BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Description	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Automated Resource Planning	$ 0.0	$ 0.3	$ 0.6	$ 0.7	$ 0.7	$ 0.7	$ 0.7	$ 0.8	$ 0.8	$ 0.8	$ 0.9	$ 0.9	$ 7.8
2	Standardized Employee Payroll and Benefits Management	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
3	Standardized Employee Performance Management	-	-	-	0.1	0.4	0.7	0.7	0.8	0.8	0.8	0.9	0.9	6.0
4	Streamlined Employee Attendance Processes	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
5	**ERP Total**	**$ 0.0**	**$ 0.3**	**$ 0.6**	**$ 0.8**	**$ 1.8**	**$ 2.7**	**$ 2.8**	**$ 2.9**	**$ 3.0**	**$ 3.2**	**$ 3.3**	**$ 3.4**	**$ 24.8**

Workpaper 3-26A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Automated Resource Planning
(Thousands of Dollars - Escalated)

Benefit Category	Workforce Enablement and HR Process Improvement
Value Driver	Automated Resource Planning
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the HR organization due to reduced manual validation, reconciliation, and follow-up for People Partners, enabled by an integrated resource planning framework with capacity forecasting tools that align workforce availability to project and operational demand.

Benefit Build: Peak Benefits in a Year
The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
	Component	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**
	Internal Labor						
1	Automated Resource Planning	$0	$500	$500	$0	$886	$886
2	**Subtotal: Internal Labor**	**$0**	**$500**	**$500**	**$0**	**$886**	**$886**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$500**	**$500**	**$0**	**$886**	**$886**
6	**Peak Annual Benefit, Un-escalated**	**$500**					
7	**Peak Benefit Reached**	**2031**					

YEAR OVER YEAR, UN-ESCALATED

					Peak Benefit Reached	**Peak Benefit**								
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Automated Resource Planning	$26	$239	$463	$500	$500	$500	$500	$500	$500	$500	$500	$500	$5,227
9	**TOTAL: ALL COMPONENTS**	**$26**	**$239**	**$463**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$5,227**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$26	$239	$463	$500	$500	$500	$500	$500	$500	$500	$500	$500	$5,227
12	**CUMULATIVE**	**$26**	**$266**	**$729**	**$1,229**	**$1,729**	**$2,228**	**$2,728**	**$3,228**	**$3,728**	**$4,228**	**$4,728**	**$5,227**	
13	**CUMULATIVE BENEFITS**	**$5,227**												

YEAR OVER YEAR, ESCALATED
The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Automated Resource Planning	$31	$294	$590	$660	$684	$710	$737	$764	$793	$823	$854	$886	$7,825
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$31**	**$294**	**$590**	**$660**	**$684**	**$710**	**$737**	**$764**	**$793**	**$823**	**$854**	**$886**	**$7,825**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Expense incl. NEE	$31	$294	$590	$660	$684	$710	$737	$764	$793	$823	$854	$886	$7,825
18	**CUMULATIVE, ESCALATED**	**$31**	**$324**	**$914**	**$1,574**	**$2,258**	**$2,968**	**$3,705**	**$4,470**	**$5,263**	**$6,085**	**$6,939**	**$7,825**	

Workpaper 3-26B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Automated Resource Planning
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

	Formula Walkthrough	*A*	*B*
Line No.	**Department**	**Capital Spend**	**Expense incl. NEE Spend**
1	People	0	27,768
2	**TOTAL DIRECT TIME**	**$0**	**$27,768**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 4% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
3	People	0	27,768	4.00%	0	1,111	1,111
4	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$0**	**$27,768**		**$0**	**$1,111**	**$1,111**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
5	People	0	1,111	60.00%	75.00%	45.00%	0	500	500
6	**Pre-Erosion Net**	**$0**	**$1,111**				**$0**	**$500**	**$500**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
7	Capital	0	100.00%	0
8	Expense incl. NEE	500	100.00%	500
9	**TOTAL**	**$500**	**100.00%**	**$500**
10	**NET BENEFIT (POST-EROSION)**	**$500**		
11	**Capital**	**$0**		**0.00%**
12	**Expense incl. NEE**	**$500**		**100.00%**

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Starts**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**
13	Release 1	Jul 2027	Aug 2028	Jul 2030	$500
	Total				**$500**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $499,825 = $26,033.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
14	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
15	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
16	Release 1 Benefit	$26	$239	$463	$500	$500	$500	$500	$500	$500	$500	$500	$500
17	**Annual Benefit**	**$26**	**$239**	**$463**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**
18	**CUMULATIVE**	**$26**	**$266**	**$729**	**$1,229**	**$1,729**	**$2,228**	**$2,728**	**$3,228**	**$3,728**	**$4,228**	**$4,728**	**$5,227**

Workpaper 3-26B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Automated Resource Planning
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
19	Expense Benefit	$26	$239	$463	$500	$500	$500	$500	$500	$500	$500	$500	$500
20	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	**Escalated Annual Benefit**	**$31**	**$294**	**$590**	**$660**	**$684**	**$710**	**$737**	**$764**	**$793**	**$823**	**$854**	**$886**
22	**Escalated Cumulative**	**$31**	**$324**	**$914**	**$1,574**	**$2,258**	**$2,968**	**$3,705**	**$4,470**	**$5,263**	**$6,085**	**$6,939**	**$7,825**

23	Peak annual Benefit, as modeled	500	The highest year on the Annual Benefit row above.
24	**Peak annual Benefit, escalated**	**$886**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
25	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions workpaper.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as “Expense incl. NEE.”
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions workpaper.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-26C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Automated Resource Planning Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	Confidence Factor (Realization x Exclusivity %)	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.
	B. BENEFIT %				
6	**Improvement Range %[1] (flat, direct time)**	4.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.
	C. PROCESS SCOPE %				
7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.
	D. EROSION				
8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			
	E. ADOPTION SCHEDULE				
14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-27
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Workforce Enablement and HR Process Improvement
Value Driver - Standardized Employee Performance Management

WP#	Workpaper Name
	Summary WPs
3-27	Testimony Table
3-27A	Standardized Employee Performance Management Summary
	Detail WPs
3-27B	Standardized Employee Performance Management Walkthrough
	Assumptions & Reference Rates WPs
3-27C	Assumptions & Reference Rates - Standardized Employee Performance Management Internal Labor

Workforce Enablement and HR Process Improvement Benefits - Testimony Table

TABLE 3-40
WORKFORCE ENABLEMENT AND HR PROCESS IMPROVEMENT BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Description	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Automated Resource Planning	$ 0.0	$ 0.3	$ 0.6	$ 0.7	$ 0.7	$ 0.7	$ 0.7	$ 0.8	$ 0.8	$ 0.8	$ 0.9	$ 0.9	$ 7.8
2	Standardized Employee Payroll and Benefits Management	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
3	Standardized Employee Performance Management	-	-	-	0.1	0.4	0.7	0.7	0.8	0.8	0.8	0.9	0.9	6.0
4	Streamlined Employee Attendance Processes	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
5	**ERP Total**	**$ 0.0**	**$ 0.3**	**$ 0.6**	**$ 0.8**	**$ 1.8**	**$ 2.7**	**$ 2.8**	**$ 2.9**	**$ 3.0**	**$ 3.2**	**$ 3.3**	**$ 3.4**	**$ 24.8**

Workpaper 3-27A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Employee Performance Management
(Thousands of Dollars - Escalated)

Benefit Category	Workforce Enablement and HR Process Improvement
Value Driver	Standardized Employee Performance Management
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the HR organization due to centralized employee performance management in SuccessFactors, including system-enabled talent reviews, talent pools with role-based access, and talent search for managers and direct reports, reducing time spent on manual HR data gathering and template creation in support of performance cycles.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Standardized Employee Performance Management	$0	$500	$500	$0	$886	$886
2	Subtotal: Internal Labor	**$0**	**$500**	**$500**	**$0**	**$886**	**$886**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$500**	**$500**	**$0**	**$886**	**$886**
6	**Peak Annual Benefit, Un-escalated**	**$500**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

							Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Standardized Employee Performance Management	$0	$0	$0	$49	$281	$482	$500	$500	$500	$500	$500	$500	$3,811
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$49**	**$281**	**$482**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$3,811**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$0	$0	$0	$49	$281	$482	$500	$500	$500	$500	$500	$500	$3,811
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$49**	**$330**	**$812**	**$1,312**	**$1,812**	**$2,312**	**$2,812**	**$3,311**	**$3,811**	
13	**CUMULATIVE BENEFITS**	**$3,811**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
14	Internal labor - Standardized Employee Performance Management	$0	$0	$0	$64	$385	$685	$737	$764	$793	$823	$854	$886	$5,991
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$64**	**$385**	**$685**	**$737**	**$764**	**$793**	**$823**	**$854**	**$886**	**$5,991**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Expense incl. NEE	$0	$0	$0	$64	$385	$685	$737	$764	$793	$823	$854	$886	$5,991
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$64**	**$449**	**$1,135**	**$1,871**	**$2,636**	**$3,429**	**$4,252**	**$5,105**	**$5,991**	

Workpaper 3-27B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Employee Performance Management
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	People	$0	$27,768
2	**TOTAL DIRECT SPEND**	**$0**	**$27,768**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 4% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
3	People	$0	$27,768	4.00%	$0	$1,111	$1,111
4	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$0**	**$27,768**		**$0**	**$1,111**	**$1,111**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
5	People	$0	$1,111	60.00%	75.00%	45.00%	$0	$500	$500
6	**Pre-Erosion Net**	**$0**	**$1,111**				**$0**	**$500**	**$500**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
7	Capital	$0	100.00%	$0
8	Expense incl. NEE	$500	100.00%	$500
9	**TOTAL**	**$500**	**100.00%**	**$500**
10	**NET BENEFIT (POST-EROSION)**	**$500**		
11	Capital	$0		0.00%
12	Expense incl. NEE	$500		100.00%

Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Benefit Starts**	**Reaches Run Rate**	**Annual Benefit at Run Rate**
13	Release 3 Benefit	May 2030	Jun 2031	May 2033	$500
14	**Total**				**$500**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $499,825 = $48,594.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
15	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
16	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
17	Release 3 Benefit	$0	$0	$0	$49	$281	$482	$500	$500	$500	$500	$500	$500
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$49**	**$281**	**$482**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**
19	**CUMULATIVE**	**$0**	**$0**	**$0**	**$49**	**$330**	**$812**	**$1,312**	**$1,812**	**$2,312**	**$2,812**	**$3,311**	**$3,811**

Workpaper 3-27B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Employee Performance Management
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
20	Expense Benefit	$0	$0	$0	$49	$281	$482	$500	$500	$500	$500	$500	$500
21	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
22	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$64**	**$385**	**$685**	**$737**	**$764**	**$793**	**$823**	**$854**	**$886**
23	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$64**	**$449**	**$1,135**	**$1,871**	**$2,636**	**$3,429**	**$4,252**	**$5,105**	**$5,991**

24	Peak annual Benefit, as modeled	500	The highest year on the Annual Benefit row above.
25	**Peak annual Benefit, escalated**	**$886**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
26	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-27C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Employee Performance Management Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. BENEFIT %

6	**Improvement Range %[1] (flat, direct time)**	4.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.

C. PROCESS SCOPE %

7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.

D. EROSION

8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			

E. ADOPTION SCHEDULE

14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-28
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Workforce Enablement and HR Process Improvement
Value Driver - Standardized Employee Payroll and Benefits Management

WP#	Workpaper Name
	Summary WPs
3-28	Testimony Table
3-28A	Standardized Employee Payroll and Benefits Management Summary
	Detail WPs
3-28B	Standardized Employee Payroll and Benefits Management Walkthrough
	Assumptions & Reference Rates WPs
3-28C	Assumptions & Reference Rates - Standardized Employee Payroll and Benefits Management Internal Labor

Workpaper 3-28
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Workforce Enablement and HR Process Improvement Benefits - Testimony Table

TABLE 3-40
WORKFORCE ENABLEMENT AND HR PROCESS IMPROVEMENT BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Description	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Automated Resource Planning	$ 0.0	$ 0.3	$ 0.6	$ 0.7	$ 0.7	$ 0.7	$ 0.7	$ 0.8	$ 0.8	$ 0.8	$ 0.9	$ 0.9	$ 7.8
2	Standardized Employee Payroll and Benefits Management	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
3	Standardized Employee Performance Management	-	-	-	0.1	0.4	0.7	0.7	0.8	0.8	0.8	0.9	0.9	6.0
4	Streamlined Employee Attendance Processes	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
5	**ERP Total**	**$ 0.0**	**$ 0.3**	**$ 0.6**	**$ 0.8**	**$ 1.8**	**$ 2.7**	**$ 2.8**	**$ 2.9**	**$ 3.0**	**$ 3.2**	**$ 3.3**	**$ 3.4**	**$ 24.8**

Workpaper 3-28A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Employee Payroll and Benefits Management
(Thousands of Dollars - Escalated)

Benefit Category	Workforce Enablement and HR Process Improvement
Value Driver	Standardized Employee Payroll and Benefits Management
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the HR organization due to standardized compensation data and automated payroll processing, including wage incentive benefits automated in ECC payroll schema, standardized wage types for exception premiums, and direct cost center posting for premium pay.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
	Component	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**
Line No.	**Internal Labor**						
1	Standardized Employee Payroll and Benefits Manager	$0	$458	$458	$0	$812	$812
2	Subtotal: Internal Labor	$0	$458	$458	$0	$812	$812
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$458**	**$458**	**$0**	**$812**	**$812**
6	**Peak Annual Benefit, Un-escalated**	**$458**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Standardized Employee Payroll and Benefits Management	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458	$3,494
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$45**	**$258**	**$442**	**$458**	**$458**	**$458**	**$458**	**$458**	**$458**	**$3,494**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458	$3,494
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$45**	**$302**	**$745**	**$1,203**	**$1,661**	**$2,119**	**$2,577**	**$3,035**	**$3,494**	
13	**CUMULATIVE BENEFITS**	**$3,494**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Standardized Employee Payroll and Benefits Management	$0	$0	$0	$59	$353	$628	$675	$701	$727	$754	$783	$812	$5,492
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$59**	**$353**	**$628**	**$675**	**$701**	**$727**	**$754**	**$783**	**$812**	**$5,492**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Expense incl. NEE	$0	$0	$0	$59	$353	$628	$675	$701	$727	$754	$783	$812	$5,492
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$59**	**$412**	**$1,040**	**$1,715**	**$2,416**	**$3,143**	**$3,897**	**$4,680**	**$5,492**	

Workpaper 3-28B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Employee Payroll and Benefits Management
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	People	0	27,768
2	**TOTAL DIRECT SPEND**	**$0**	**$27,768**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 4% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
3	People	0	27,768	4.00%	0	1,111	1,111
4	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$0**	**$27,768**		**$0**	**$1,111**	**$1,111**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
5	People	0	1,111	55.00%	75.00%	41.25%	0	458	458
6	**Pre-Erosion Net**	**$0**	**$1,111**				**$0**	**$458**	**$458**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
7	Capital	0	100.00%	0
8	Expense incl. NEE	458	100.00%	458
9	**TOTAL**	**$458**	**100.00%**	**$458**
10	**NET BENEFIT (POST-EROSION)**	**$458**		
11	Capital	$0		0.00%
12	Expense incl. NEE	$458		100.00%

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Starts**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**
13	Release 3 Benefit	May 2030	Jun 2031	May 2033	$458
14	**Total**				**$458**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $458,172 = $44,545.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
14	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
15	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
16	Release 3 Benefit	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458
17	**Annual Benefit**	**$0**	**$0**	**$0**	**$45**	**$258**	**$442**	**$458**	**$458**	**$458**	**$458**	**$458**	**$458**
18	**CUMULATIVE**	**$0**	**$0**	**$0**	**$45**	**$302**	**$745**	**$1,203**	**$1,661**	**$2,119**	**$2,577**	**$3,035**	**$3,494**

Workpaper 3-28B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Employee Payroll and Benefits Management
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
19	Expense Benefit	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458
20	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
21	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$59**	**$353**	**$628**	**$675**	**$701**	**$727**	**$754**	**$783**	**$812**
22	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$59**	**$412**	**$1,040**	**$1,715**	**$2,416**	**$3,143**	**$3,897**	**$4,680**	**$5,492**

23	Peak annual Benefit, as modeled	458	The highest year on the Annual Benefit row above.
24	**Peak annual Benefit, escalated**	**$812**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
25	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-28C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Employee Payroll and Benefits Management Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	5.00%	5.00%	5.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	55.00%	30.00%	30.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	41.25%	22.50%	22.50%	The two rows above (Realization Rate and Exclusivity %), multiplied together.
	B. BENEFIT %				
6	**Improvement Range %[1] (flat, direct time)**	4.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating-Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.
	C. PROCESS SCOPE %				
7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.
	D. EROSION				
8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			
	E. ADOPTION SCHEDULE				
14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-29
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Workforce Enablement and HR Process Improvement
Value Driver - Streamlined Employee Attendance Processes

WP#	Workpaper Name
	Summary WPs
3-29	Testimony Table
3-29A	Streamlined Employee Attendance Processes Summary
	Detail WPs
3-29B	Streamlined Employee Attendance Processes Walkthrough
	Assumptions & Reference Rates WPs
3-29C	Assumptions & Reference Rates - Streamlined Employee Attendance Processes Internal Labor

Workpaper 3-29
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Workforce Enablement and HR Process Improvement Benefits - Testimony Table

TABLE 3-40

WORKFORCE ENABLEMENT AND HR PROCESS IMPROVEMENT BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Description	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Automated Resource Planning	$ 0.0	$ 0.3	$ 0.6	$ 0.7	$ 0.7	$ 0.7	$ 0.7	$ 0.8	$ 0.8	$ 0.8	$ 0.9	$ 0.9	$ 7.8
2	Standardized Employee Payroll and Benefits Management	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
3	Standardized Employee Performance Management	-	-	-	0.1	0.4	0.7	0.7	0.8	0.8	0.8	0.9	0.9	6.0
4	Streamlined Employee Attendance Processes	-	-	-	0.1	0.4	0.6	0.7	0.7	0.7	0.8	0.8	0.8	5.5
5	**ERP Total**	**$ 0.0**	**$ 0.3**	**$ 0.6**	**$ 0.8**	**$ 1.8**	**$ 2.7**	**$ 2.8**	**$ 2.9**	**$ 3.0**	**$ 3.2**	**$ 3.3**	**$ 3.4**	**$ 24.8**

Workpaper 3-29A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Employee Attendance Processes
(Thousands of Dollars - Escalated)

Benefit Category	Workforce Enablement and HR Process Improvement
Value Driver	Streamlined Employee Attendance Processes
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the HR organization due to centralized tool access to manage accurate attendance data and transfers, with time entry captured at the operation level in mobile and flowing directly to the HR timesheet system, reducing manual reporting and time entry errors.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
	Component	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**
Line No.	**Internal Labor**						
1	Streamlined Employee Attendance Processes	$0	$458	$458	$0	$812	$812
2	**Subtotal: Internal Labor**	**$0**	**$458**	**$458**	**$0**	**$812**	**$812**
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$458**	**$458**	**$0**	**$812**	**$812**
6	**Peak Annual Benefit, Un-escalated**	**$458**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Streamlined Employee Attendance Proc	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458	$3,494
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$45**	**$258**	**$442**	**$458**	**$458**	**$458**	**$458**	**$458**	**$458**	**$3,494**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458	$3,494
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$45**	**$302**	**$745**	**$1,203**	**$1,661**	**$2,119**	**$2,577**	**$3,035**	**$3,494**	
13	**CUMULATIVE BENEFITS**	**$3,494**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
14	Internal labor - Streamlined Employee Attendance Proc	$0	$0	$0	$59	$353	$628	$675	$701	$727	$754	$783	$812	$5,492
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$59**	**$353**	**$628**	**$675**	**$701**	**$727**	**$754**	**$783**	**$812**	**$5,492**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Expense incl. NEE	$0	$0	$0	$59	$353	$628	$675	$701	$727	$754	$783	$812	$5,492
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$59**	**$412**	**$1,040**	**$1,715**	**$2,416**	**$3,143**	**$3,897**	**$4,680**	**$5,492**	

Workpaper 3-29B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Employee Attendance Processes
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	People	0	27,768
2	**TOTAL DIRECT SPEND**	**$0**	**$27,768**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 4% applied to direct time for all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
3	People	0	27,768	4.00%	0	1,111	1,111
4	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$0**	**$27,768**		**$0**	**$1,111**	**$1,111**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
5	People	0	1,111	55.00%	75.00%	41.25%	0	458	458
6	**Pre-Erosion Net**	**$0**	**$1,111**				**$0**	**$458**	**$458**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
7	Capital	0	100.00%	0
8	Expense incl. NEE	458	100.00%	458
9	**TOTAL**	**$458**	**100.00%**	**$458**
10	**NET BENEFIT (POST-EROSION)**	**$458**		
11	Capital	$0		0.00%
12	Expense incl. NEE	$458		100.00%

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Starts**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**
13	Release 3 Benefit	May 2030	Jun 2031	May 2033	$458
14	**Total**				**$458**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $458,172 = $44,545.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
15	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
16	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
17	Release 3 Benefit	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458
18	**Annual Benefit**	**$0**	**$0**	**$0**	**$45**	**$258**	**$442**	**$458**	**$458**	**$458**	**$458**	**$458**	**$458**
19	**CUMULATIVE**	**$0**	**$0**	**$0**	**$45**	**$302**	**$745**	**$1,203**	**$1,661**	**$2,119**	**$2,577**	**$3,035**	**$3,494**

Workpaper 3-29B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Streamlined Employee Attendance Processes
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
20	Expense Benefit	$0	$0	$0	$45	$258	$442	$458	$458	$458	$458	$458	$458
21	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
22	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$59**	**$353**	**$628**	**$675**	**$701**	**$727**	**$754**	**$783**	**$812**
23	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$59**	**$412**	**$1,040**	**$1,715**	**$2,416**	**$3,143**	**$3,897**	**$4,680**	**$5,492**

24	Peak annual Benefit, as modeled	458	The highest year on the Annual Benefit row above.
25	**Peak annual Benefit, escalated**	**$812**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
26	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-29C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Streamlined Employee Attendance Processes Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	5.00%	5.00%	5.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	55.00%	30.00%	30.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	41.25%	22.50%	22.50%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. BENEFIT %

6	**Improvement Range %[1] (flat, direct time)**	4.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.

C. PROCESS SCOPE %

7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.

D. EROSION

8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			

E. ADOPTION SCHEDULE

14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-30
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Health, Safety, and Compliance Improvement
Value Driver - Traceability of EHS Critical Records and Standardized Documentation

WP#	Workpaper Name
	Summary WPs
3-30	Testimony Table
3-30A	Traceability of EHS Critical Records and Standardized Documentation Summary
	Detail WPs
3-30B	Traceability of EHS Critical Records and Standardized Documentation Walkthrough
	Assumptions & Reference Rates WPs
3-30C	Assumptions & Reference Rates - Traceability of EHS Critical Records and Standardized Documentation Internal Labor

Workpaper 3-30
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Health, Safety and Compliance Improvement Benefits - Testimony Table

TABLE 3-41
HEALTH, SAFETY AND COMPLIANCE IMPROVEMENT BENEFITS FOR ERP PLATFORM BY VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Traceability of EHS Critical Records and Standardized Documentation	$ -	$ -	$ -	$ 1.9	$ 11.2	$ 19.8	$ 21.1	$ 21.7	$ 22.3	$ 22.9	$ 23.5	$ 24.1	$ 168.5
2	Standardized Inspection Documentation Process	0.1	0.5	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	13.0
3	Standardized Pre-Work Safety Documentation and Risk Assessment	0.1	0.5	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	13.0
4	**ERP Total**	**$ 0.1**	**$ 1.0**	**$ 2.0**	**$ 4.1**	**$ 13.5**	**$ 22.2**	**$ 23.5**	**$ 24.2**	**$ 24.9**	**$ 25.6**	**$ 26.3**	**$ 27.1**	**$ 194.5**

Workpaper 3-30A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Traceability of EHS Critical Records and Standardized Documentation
(Thousands of Dollars - Escalated)

Benefit Category	Health, Safety, and Compliance Improvement
Value Driver	Traceability of EHS Critical Records and Standardized Documentation
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to Gas, Electric, Wildfire, Major Emergency, and EH&S organizations related to more efficient submission and tracking of EH&S critical records, enabled by SAP Environmental Health & Safety (EHS) with embedded investigation capability, Job Hazard/Job Safety Analysis (JHA/JSA) risk assessment, OSHA reporting, a universal forms tool, and an enterprise-wide EHS location hierarchy. Standardized documentation on work orders improves traceability from field observations through incident investigation to corrective action.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense	Net Benefit (Post-Erosion)
	Internal Labor						
1	Traceability of EHS Critical Records and Standardized Documentation	$9,901	$5,897	$15,798	$15,131	$9,013	$24,144
2	Subtotal: Internal Labor	$9,901	$5,897	$15,798	$15,131	$9,013	$24,144
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$9,901**	**$5,897**	**$15,798**	**$15,131**	**$9,013**	**$24,144**
6	**Peak Annual Benefit, Un-escalated**	**$15,798**					
7	**Peak Benefit Reached**	**2034**					

YEAR OVER YEAR, UN-ESCALATED

								Peak Benefit Reached	Peak Benefit					
	Component	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Internal labor - Traceability of EHS Critical Records and Standardized Documentation	$0	$0	$0	$1,536	$8,886	$15,249	$15,798	$15,798	$15,798	$15,798	$15,798	$15,798	$120,456
9	**TOTAL: ALL COMPONENTS**	**$0**	**$0**	**$0**	**$1,536**	**$8,886**	**$15,249**	**$15,798**	**$15,798**	**$15,798**	**$15,798**	**$15,798**	**$15,798**	**$120,456**
10	Capital	$0	$0	$0	$963	$5,569	$9,557	$9,901	$9,901	$9,901	$9,901	$9,901	$9,901	$75,491
11	Expense incl. NEE	$0	$0	$0	$573	$3,317	$5,692	$5,897	$5,897	$5,897	$5,897	$5,897	$5,897	$44,965
12	**CUMULATIVE**	**$0**	**$0**	**$0**	**$1,536**	**$10,422**	**$25,671**	**$41,469**	**$57,266**	**$73,064**	**$88,861**	**$104,659**	**$120,456**	
13	**CUMULATIVE BENEFITS**	**$120,456**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
14	**Internal labor - Traceability of EHS Critical Records and Standardized Documentation**	$0	$0	$0	$1,895	$11,248	$19,815	$21,085	$21,660	$22,254	$22,865	$23,495	$24,144	$168,460
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$1,895**	**$11,248**	**$19,815**	**$21,085**	**$21,660**	**$22,254**	**$22,865**	**$23,495**	**$24,144**	**$168,460**
16	Capital	$0	$0	$0	$1,138	$6,705	$11,727	$12,392	$12,641	$12,897	$13,157	$13,423	$13,694	$97,776
17	Expense incl. NEE	$0	$0	$0	$757	$4,543	$8,088	$8,693	$9,019	$9,357	$9,708	$10,072	$10,449	$70,684
18	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$1,895**	**$13,142**	**$32,957**	**$54,042**	**$75,703**	**$97,956**	**$120,821**	**$144,316**	**$168,460**	

Workpaper 3-30B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Traceability of EHS Critical Records and Standardized Documentation
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

	Formula Walkthrough	*A*	*B*
Line No.	**Department**	**Capital Spend**	**Expense incl. NEE Spend**
1	Electric Distribution Major Emergency	14,195	20,354
2	Electric Operations	279,719	68,520
3	Enterprise Health & Safety	1	16,472
4	Gas Operations	75,998	66,106
5	Operations Support	280	5,345
6	Power Generation	13,549	18,739
7	Wildfire Emergency & Operations	16,279	42,728
8	**TOTAL DIRECT SPEND**	**$400,021**	**$238,265**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 6% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
9	Electric Distribution Major Emergency	14,195	20,354	6.00%	852	1,221	2,073
10	Electric Operations	279,719	68,520	6.00%	16,783	4,111	20,894
11	Enterprise Health & Safety	1	16,472	6.00%	0	988	988
12	Gas Operations	75,998	66,106	6.00%	4,560	3,966	8,526
13	Operations Support	280	5,345	6.00%	17	321	338
14	Power Generation	13,549	18,739	6.00%	813	1,124	1,937
15	Wildfire Emergency & Operations	16,279	42,728	6.00%	977	2,564	3,540
16	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$400,021**	**$238,265**		**$24,001**	**$14,296**	**$38,297**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
17	Electric Distribution Major Emergency	852	1,221	55.00%	75.00%	41.25%	351	504	855
18	Electric Operations	16,783	4,111	55.00%	75.00%	41.25%	6,923	1,696	8,619
19	Enterprise Health & Safety	0	988	55.00%	75.00%	41.25%	0	408	408
20	Gas Operations	4,560	3,966	55.00%	75.00%	41.25%	1,881	1,636	3,517
21	Operations Support	17	321	55.00%	75.00%	41.25%	7	132	139
22	Power Generation	813	1,124	55.00%	75.00%	41.25%	335	464	799
23	Wildfire Emergency & Operations	977	2,564	55.00%	75.00%	41.25%	403	1,058	1,460
24	**Pre-Erosion Net**	**$24,001**	**$14,296**				**$9,901**	**$5,897**	**$15,798**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
25	Capital	9,901	100.00%	9,901
26	Expense incl. NEE	5,897	100.00%	5,897
27	**TOTAL**	**$15,798**	**100.00%**	**$15,798**
28	**NET BENEFIT (POST-EROSION)**	**$15,798**		
29	Capital	$9,901		62.67%
30	Expense incl. NEE	$5,897		37.33%

Workpaper 3-30B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Traceability of EHS Critical Records and Standardized Documentation
(Thousands of Dollars - Escalated)

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	Forecasted Start of Stabilization	Forecasted Benefit Starts	Forecasted Run Rate Reached	Annual Benefit at Run Rate
31	Release 3 Benefit	May 2030	Jun 2031	May 2033	$15,798
32	**Total**				**$15,798**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is May 2030, so 2031 earns nothing until June, then 1/24, 2/24 and so on up to 7/24 through December: (1+2+…+7) / 24 / 12 = 9.7%, and 9.7% × $15,797,564 = $1,535,874.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
32	Release 3 Ramp %	0.00%	0.00%	0.00%	9.72%	56.25%	96.53%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
33	Release 3 Months Realized	0.00	0.00	0.00	1.17	6.75	11.58	12.00	12.00	12.00	12.00	12.00	12.00
34	Release 3 Benefit	$0	$0	$0	$1,536	$8,886	$15,249	$15,798	$15,798	$15,798	$15,798	$15,798	$15,798
35	**Annual Benefit**	**$0**	**$0**	**$0**	**$1,536**	**$8,886**	**$15,249**	**$15,798**	**$15,798**	**$15,798**	**$15,798**	**$15,798**	**$15,798**
36	**CUMULATIVE**	**$0**	**$0**	**$0**	**$1,536**	**$10,422**	**$25,671**	**$41,469**	**$57,266**	**$73,064**	**$88,861**	**$104,659**	**$120,456**

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
37	Capital Benefit	$0	$0	$0	$963	$5,569	$9,557	$9,901	$9,901	$9,901	$9,901	$9,901	$9,901
38	Expense incl. NEE Benefit	$0	$0	$0	$573	$3,317	$5,692	$5,897	$5,897	$5,897	$5,897	$5,897	$5,897
39	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
40	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
41	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$1,895**	**$11,248**	**$19,815**	**$21,085**	**$21,660**	**$22,254**	**$22,865**	**$23,495**	**$24,144**
42	**Escalated Cumulative**	**$0**	**$0**	**$0**	**$1,895**	**$13,142**	**$32,957**	**$54,042**	**$75,703**	**$97,956**	**$120,821**	**$144,316**	**$168,460**

43	Peak annual Benefit, as modeled	15,798	The highest year on the Annual Benefit row above.
44	**Peak annual Benefit, escalated**	**$24,144**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
45	**Uplift on peak**	**52.83%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-30C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Traceability of EHS Critical Records and Standardized Documentation Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	5.00%	5.00%	5.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	55.00%	30.00%	30.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	41.25%	22.50%	22.50%	The two rows above (Realization Rate and Exclusivity %), multiplied together.
	B. BENEFIT %				
6	**Improvement Range %[1] (flat, direct time)**	6.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.
	C. PROCESS SCOPE %				
7	**Process Scope %**	27.70%			The share of a department's internal labor spend that this process touches.
	D. EROSION				
8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			
	E. ADOPTION SCHEDULE				
14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	$2	$2	202800.00%	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-31
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Health, Safety, and Compliance Improvement
Value Driver - Standardized Inspection Documentation Process

WP#	Workpaper Name
	Summary WPs
3-31	Testimony Table
3-31A	Standardized Inspection Documentation Process Summary
	Detail WPs
3-31B	Standardized Inspection Documentation Process Walkthrough
	Assumptions & Reference Rates WPs
3-31C	Assumptions & Reference Rates - Standardized Inspection Documentation Process Internal Labor

Workpaper 3-31
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Health, Safety and Compliance Improvement Benefits - Testimony Table

TABLE 3-41
HEALTH, SAFETY AND COMPLIANCE IMPROVEMENT BENEFITS FOR ERP PLATFORM BY VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Traceability of EHS Critical Records and Standardized Documentation	$ -	$ -	$ -	$ 1.9	$ 11.2	$ 19.8	$ 21.1	$ 21.7	$ 22.3	$ 22.9	$ 23.5	$ 24.1	$ 168.5
2	Standardized Inspection Documentation Process	0.1	0.5	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	13.0
3	Standardized Pre-Work Safety Documentation and Risk Assessment	0.1	0.5	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	13.0
4	**ERP Total**	**$ 0.1**	**$ 1.0**	**$ 2.0**	**$ 4.1**	**$ 13.5**	**$ 22.2**	**$ 23.5**	**$ 24.2**	**$ 24.9**	**$ 25.6**	**$ 26.3**	**$ 27.1**	**$ 194.5**

Workpaper 3-31A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Inspection Documentation Process
(Thousands of Dollars - Escalated)

Benefit Category	Health, Safety, and Compliance Improvement
Value Driver	Standardized Inspection Documentation Process
Calculation Method	Department-based

DEFINITION

Improves EH&S efficiency through standardized reporting, improved oversight, and documentation for safety inspection activities, such as assessments and observations. Checklists are captured in standard forms, so EH&S can review, track and act on them in one place. Dashboards provide greater visibility into safety activities, while self-service capabilities allow users to search, save, and schedule queries and reports.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense	Net Benefit (Post-Erosion)
	Internal Labor						
1	Standardized Inspection Documentation Process	$0	$833	$833	$0	$1,476	$1,476
2	Subtotal: Internal Labor	$0	$833	$833	$0	$1,476	$1,476
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$833**	**$833**	**$0**	**$1,476**	**$1,476**
6	**Peak Annual Benefit, Un-escalated**	**$833**					
7	**Peak Benefit Reached**	**2031**					

YEAR OVER YEAR, UN-ESCALATED

					Peak Benefit Reached	Peak Benefit							
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
8	Internal labor - Standardized Inspection Documentation Process	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833	$8,714
9	**TOTAL: ALL COMPONENTS**	**$43**	**$399**	**$772**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$8,714**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833	$8,714
12	**CUMULATIVE**	**$43**	**$443**	**$1,215**	**$2,048**	**$2,882**	**$3,715**	**$4,548**	**$5,381**	**$6,215**	**$7,048**	**$7,881**	**$8,714**	
13	**CUMULATIVE BENEFITS**	**$8,714**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
14	Internal labor - Standardized Inspection Documentation Process	$51	$490	$983	$1,100	$1,141	$1,184	$1,228	$1,274	$1,322	$1,372	$1,423	$1,476	$13,044
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$51**	**$490**	**$983**	**$1,100**	**$1,141**	**$1,184**	**$1,228**	**$1,274**	**$1,322**	**$1,372**	**$1,423**	**$1,476**	**$13,044**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1
17	Expense incl. NEE	$51	$490	$983	$1,100	$1,141	$1,184	$1,228	$1,274	$1,322	$1,372	$1,423	$1,476	$13,044
18	**CUMULATIVE, ESCALATED**	**$51**	**$541**	**$1,524**	**$2,624**	**$3,765**	**$4,948**	**$6,177**	**$7,451**	**$8,773**	**$10,145**	**$11,568**	**$13,044**	

Workpaper 3-31B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Inspection Documentation Process
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

	Formula Walkthrough	*A*	*B*
Line No.	**Department**	**Capital Spend**	**Expense incl. NEE Spend**
1	Enterprise Health & Safety	2	46,289
2	**TOTAL DIRECT SPEND**	**$2**	**$46,289**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 4% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
3	Enterprise Health & Safety	2	46,289	4.00%	0	1,852	1,852
4	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$2**	$46,289		$0	$1,852	$1,852

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
5	Enterprise Health & Safety	0	1,852	60.00%	75.00%	45.00%	0	833	833
6	**Pre-Erosion Net**	**$0**	$1,852				**$0**	**$833**	**$833**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
7	Capital	0	100.00%	0
8	Expense incl. NEE	833	100.00%	833
9	**TOTAL**	**$833**	**100.00%**	**$833**
10	**NET BENEFIT (POST-EROSION)**	**$833**		
11	Capital	$0		0.01%
12	Expense incl. NEE	$833		99.99%

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Starts**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**
13	Release 1 Benefit	Jul 2027	Aug 2028	Jul 2030	$833
14	**Total**				**$833**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $833,253 = $43,399.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
15	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
16	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
17	Release 1 Benefit	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833
18	**Annual Benefit**	**$43**	**$399**	**$772**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**
19	**CUMULATIVE**	**$43**	**$443**	**$1,215**	**$2,048**	**$2,882**	**$3,715**	**$4,548**	**$5,381**	**$6,215**	**$7,048**	**$7,881**	**$8,714**

Workpaper 3-31B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Inspection Documentation Process
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
20	Capital Benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	Expense incl. NEE Benefit	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833
22	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
23	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
24	**Escalated Annual Benefit**	**$51**	**$490**	**$983**	**$1,100**	**$1,141**	**$1,184**	**$1,228**	**$1,274**	**$1,322**	**$1,372**	**$1,423**	**$1,476**
25	**Escalated Cumulative**	**$51**	**$541**	**$1,524**	**$2,624**	**$3,765**	**$4,948**	**$6,177**	**$7,451**	**$8,773**	**$10,145**	**$11,568**	**$13,044**

26	Peak annual Benefit, as modeled	833	The highest year on the Annual Benefit row above.
27	**Peak annual Benefit, escalated**	**$1,476**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
28	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-31C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Inspection Documentation Process Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.
	B. BENEFIT %				
6	**Improvement Range %[1] (flat, direct time)**	4.00%			One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.
	C. PROCESS SCOPE %				
7	**Process Scope %**	100.00%			The share of a department's internal labor spend that this process touches.
	D. EROSION				
8	E1 - Value Driver scope	100.00%			Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A			Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A			Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%			
12	**Erosion factor - Capital**	100.00%			
13	**Erosion factor - Expense incl. NEE**	100.00%			
	E. ADOPTION SCHEDULE				
14	Stabilization (months)	12			Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24			Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36			Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-32
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Health, Safety, and Compliance Improvement
Value Driver - Standardized Pre-Work Safety Documentation and Risk Assessment

WP#	Workpaper Name
	Summary WPs
3-32	Testimony Table
3-32A	Standardized Pre-Work Safety Documentation and Risk Assessment Summary
	Detail WPs
3-32B	Standardized Pre-Work Safety Documentation and Risk Assessment Walkthrough
	Assumptions & Reference Rates WPs
3-32C	Assumptions & Reference Rates - Standardized Pre-Work Safety Documentation and Risk Assessment Internal Labor

Workpaper 3-32
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Health, Safety and Compliance Improvement Benefits - Testimony Table

TABLE 3-41
HEALTH, SAFETY AND COMPLIANCE IMPROVEMENT BENEFITS FOR ERP PLATFORM BY VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Traceability of EHS Critical Records and Standardized Documentation	$ -	$ -	$ -	$ 1.9	$ 11.2	$ 19.8	$ 21.1	$ 21.7	$ 22.3	$ 22.9	$ 23.5	$ 24.1	$ 168.5
2	Standardized Inspection Documentation Process	0.1	0.5	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	13.0
3	Standardized Pre-Work Safety Documentation and Risk Assessment	0.1	0.5	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	13.0
4	**ERP Total**	**$ 0.1**	**$ 1.0**	**$ 2.0**	**$ 4.1**	**$ 13.5**	**$ 22.2**	**$ 23.5**	**$ 24.2**	**$ 24.9**	**$ 25.6**	**$ 26.3**	**$ 27.1**	**$ 194.5**

Workpaper 3-32A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Pre-Work Safety Documentation and Risk Assessment
(Thousands of Dollars - Escalated)

Benefit Category	Health, Safety, and Compliance Improvement
Value Driver	Standardized Pre-Work Safety Documentation and Risk Assessment
Calculation Method	Department-based

DEFINITION

Internal efficiencies applied to the EH&S organization related to standardized pre-work documentation and risk assessment processes. SAP Environmental Health & Safety (EHS) Risk Assessment manages Job Hazard/Safety Analysis (JHA/JSA) and High Energy Control Assessment (HECA) hazards and controls, with a universal forms tool for intake and follow-up. Integrated EHS location hierarchy (built enterprise-wide for Release 1), embedded investigation capability, and standardized OSHA reporting reduce manual paperwork and improve traceability of safety-critical records as part of work order readiness.

Benefit Build: Peak Benefits in a Year

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live.

		Un-escalated			Escalated		
Line No.	Component	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)	Capital	Expense Incl. Non-Earnings Expense (NEE)	Net Benefit (Post-Erosion)
	Internal Labor						
1	Standardized Pre-Work Safety Documentation and Risl	$0	$833	$833	$0	$1,476	$1,476
2	Subtotal: Internal Labor	$0	$833	$833	$0	$1,476	$1,476
3	**External Labor**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4	**Non-Labor Sourcing**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5	**TOTAL VALUE DRIVER BENEFIT**	**$0**	**$833**	**$833**	**$0**	**$1,476**	**$1,476**
6	**Peak Annual Benefit, Un-escalated**	**$833**					
7	**Peak Benefit Reached**	**2031**					

YEAR OVER YEAR, UN-ESCALATED

					Peak Benefit Reached	Peak Benefit								
	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
8	Internal labor - Standardized Pre-Work Safety Documentation and Risk Assessment	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833	$8,714
9	**TOTAL: ALL COMPONENTS**	**$43**	**$399**	**$772**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$8,714**
10	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense incl. NEE	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833	$8,714
12	**CUMULATIVE**	**$43**	**$443**	**$1,215**	**$2,048**	**$2,882**	**$3,715**	**$4,548**	**$5,381**	**$6,215**	**$7,048**	**$7,881**	**$8,714**	
13	**CUMULATIVE BENEFITS**	**$8,714**												

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own tab, where the rate is shown year by year. The benefit build above is stated as modeled, before escalation.

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
14	Internal labor - Standardized Pre-Work Safety Documentation and Risk Assessment	$51	$490	$983	$1,100	$1,141	$1,184	$1,228	$1,274	$1,322	$1,372	$1,423	$1,476	$13,044
15	**TOTAL, ALL COMPONENTS, ESCALATED**	**$51**	**$490**	**$983**	**$1,100**	**$1,141**	**$1,184**	**$1,228**	**$1,274**	**$1,322**	**$1,372**	**$1,423**	**$1,476**	**$13,044**
16	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1
17	Expense incl. NEE	$51	$490	$983	$1,100	$1,141	$1,184	$1,228	$1,274	$1,322	$1,372	$1,423	$1,476	$13,044
18	**CUMULATIVE, ESCALATED**	**$51**	**$541**	**$1,524**	**$2,624**	**$3,765**	**$4,948**	**$6,177**	**$7,451**	**$8,773**	**$10,145**	**$11,568**	**$13,044**	

Workpaper 3-32B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Pre-Work Safety Documentation and Risk Assessment
(Thousands of Dollars - Escalated)

STEP 1 OF 4: DIRECT TIME

Direct time spend for each department, split by Capital and Expense.

Line No.	*Formula Walkthrough*	*A*	*B*
	Department	**Capital Spend**	**Expense incl. NEE Spend**
1	Enterprise Health & Safety	2	46,289
2	**TOTAL DIRECT SPEND**	**$2**	**$46,289**

STEP 2 OF 4: APPLY IMPROVEMENT RANGE[1]

A flat Improvement Range % of 4% applied to direct time.

	Formula Walkthrough	*A*	*B*	*C*	*D = A x C*	*E = B x C*	*F = D + E*
	Department	**Capital Spend**	**Expense incl. NEE Spend**	**Improvement Range %[1]**	**Capital Benefit**	**Expense incl. NEE Benefit**	**Gross Benefit**
3	Enterprise Health & Safety	2	46,289	4.00%	0	1,852	1,852
4	**TOTAL RAW BENEFIT (DIRECT TIME)**	**$2**	**$46,289**		**$0**	**$1,852**	**$1,852**

STEP 3 OF 4: APPLY CONFIDENCE FACTOR (REALIZATION X EXCLUSIVITY %)

A single Confidence Factor is applied to all Departments.

	Formula Walkthrough	*A*	*B*	*C*	*D*	*E = C x D*	*F = A x E*	*G = B x E*	*H = F + G*
	Department	**Gross Capital**	**Gross Expense**	**Realization Rate**	**Exclusivity**	**Confidence Factor**	**Net Capital**	**Net Expense incl. NEE**	**Net Benefit**
5	Enterprise Health & Safety	0	1,852	60.00%	75.00%	45.00%	0	833	833
6	**Pre-Erosion Net**	**$0**	**$1,852**				**$0**	**$833**	**$833**

STEP 4 OF 4: EROSION - NONE APPLIES

This step applies an Erosion Factor, which are adjustments made during or after Enterprise Design to remove scope.

	Formula Walkthrough	*A*	*B*	*C = A x B*
	Scope	**Pre-Erosion Net**	**Erosion Factor**	**Post-Erosion Net**
7	Capital	0	100.00%	0
8	Expense incl. NEE	833	100.00%	833
9	**TOTAL**	**$833**	**100.00%**	**$833**
10	**NET BENEFIT (POST-EROSION)**	**$833**		
11	Capital	$0		0.01%
12	Expense incl. NEE	$833		99.99%

YEAR-OVER-YEAR SCHEDULE

The annual Benefit reflects the total forecasted benefits for this value pool. This value driver takes 36 months to reach run rate: 12 months with no Benefit while the organization learns the new process, then 24 months building up. The Ramp % below is how much of the release's annual amount is realized in that year.

	Release	**Forecasted Start of Stabilization**	**Forecasted Benefit Starts**	**Forecasted Run Rate Reached**	**Annual Benefit at Run Rate**
13	Release 1 Benefit	Jul 2027	Aug 2028	Jul 2030	$833
14	**Total**				**$833**

Benefits are not incurred during a 12 month stabilization period. A year's Ramp % is the average of its 12 monthly percentages. Months Realized row is the number of months the benefits are expected to be realized in a year. The row beneath applies the Benefits to each release by year based on the Annual Benefit Run Rate for Release multiplied by the Ramp %. For example, the Forecasted Start of Stabilization is Jul 2027, so 2028 earns nothing until August, then 1/24, 2/24, 3/24, 4/24 and 5/24 through December: (1+2+3+4+5) / 24 / 12 = 5.2%, and 5.2% × $833,253 = $43,399.

	Year	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
14	Release 1 Ramp %	5.21%	47.92%	92.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
15	Release 1 Months Realized	0.63	5.75	11.13	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
16	Release 1 Benefit	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833
17	**Annual Benefit**	**$43**	**$399**	**$772**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**	**$833**
18	**CUMULATIVE**	**$43**	**$443**	**$1,215**	**$2,048**	**$2,882**	**$3,715**	**$4,548**	**$5,381**	**$6,215**	**$7,048**	**$7,881**	**$8,714**

Workpaper 3-32B
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Standardized Pre-Work Safety Documentation and Risk Assessment
(Thousands of Dollars - Escalated)

RATE ESCALATION

A benefit earned in a given year is multiplied by the rate published for its benefit type and its capital or expense category in that year.

	Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
19	Capital Benefit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	Expense incl. NEE Benefit	$43	$399	$772	$833	$833	$833	$833	$833	$833	$833	$833	$833
21	Capital escalation rate	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
22	Expense escalation rate	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
23	**Escalated Annual Benefit**	**$51**	**$490**	**$983**	**$1,100**	**$1,141**	**$1,184**	**$1,228**	**$1,274**	**$1,322**	**$1,372**	**$1,423**	**$1,476**
24	**Escalated Cumulative**	**$51**	**$541**	**$1,524**	**$2,624**	**$3,765**	**$4,948**	**$6,177**	**$7,451**	**$8,773**	**$10,145**	**$11,568**	**$13,044**

25	Peak annual Benefit, as modeled	833	The highest year on the Annual Benefit row above.
26	**Peak annual Benefit, escalated**	**$1,476**	The highest year on the Escalated Annual Benefit row. Escalation can move which year is peak.
27	**Uplift on peak**	**77.20%**	The % increase of peak annual Benefit due to escalation.

GLOSSARY

Capital Share	The proportion of a department's net benefit that falls to capital rather than expense. Set per department on the Assumptions tab.
Confidence Factor	Realization Rate multiplied by Exclusivity %. Applied to gross benefit in Step 3 to calculate net benefit.
Department	The department that owns the process this value driver improves.
Department GL Spend	All General Ledger spend recorded against the department, before any narrowing.
Direct time	Standard time, overtime and double time for in-scope job roles, after applicable exclusions. This is the base spend used in the calculation.
Erosion	Adjustment applied to remove benefits associated with out-of-scope activities. Separate factors are applied to capital and expense in Step 4.
Exclusivity %	Percentage of the Benefit attributable to ERP, excluding benefits associated with other initiatives.
Gross Benefit	Total Addressable Spend multiplied by the applicable planned improvement rate, before applying the confidence factor.
Improvement Range %[1]	Percentage of Total Addressable Spend expected to be reduced through the planned improvement. Set by role and operating area and applied in Step 2.
Internal Labor %	Internal Labor Spend divided by Department GL Spend.
Internal Labor Spend	The portion of department spend that is internal labor.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as Expense incl. NEE.
Process Scope %	The share of the department's internal labor that this process touches. Set per department on the Assumptions tab.
Realization Rate	The realization rate reflects the portion of the benchmark opportunity expected to be achieved after implementation. The rate was informed by Business Enablement maturity assessments derived from Maturity Impact Assessment responses, Enterprise Design workshops, SME working sessions, stakeholder reviews, and executive validation activities. It is built as a starting rate plus a maturity adjustment in percentage points on the Assumptions workpaper.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-32C
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions & Reference Rates - Standardized Pre-Work Safety Documentation and Risk Assessment Internal Labor

A. CONFIDENCE RATES

Line No.	Parameter	Direct Time	Management OH	Benefits OH	Notes
1	Starting realization rate	50.00%	25.00%	25.00%	Internal direct labor starts at 50% before applying any other adjustments.
2	Maturity adjustment (percentage points)	10.00%	10.00%	10.00%	Additional improvement applied where ERP is expected to increase PG&E's maturity for a value driver. The size of the improvement reflects the gap between current and target maturity identified through workshop ratings and is added as percentage points.
3	Realization rate	60.00%	35.00%	35.00%	Percentage of the improvement range expected to be captured.
4	Exclusivity %	75.00%	75.00%	75.00%	Share attributable to ERP rather than to other work already under way.
5	**Confidence Factor (Realization × Exclusivity %)**	45.00%	26.25%	26.25%	The two rows above (Realization Rate and Exclusivity %), multiplied together.

B. BENEFIT %

6	**Improvement Range %[1] (flat, direct time)**	4.00%	One flat rate applied uniformly across the in-scope departments. There is no per-Operating Area benefit curve, because the base is a department aggregate rather than a per-coworker build-up.

C. PROCESS SCOPE %

7	**Process Scope %**	100.00%	The share of a department's internal labor spend that this process touches.

D. EROSION

8	E1 - Value Driver scope	100.00%	Share of the value driver that remains in ERP scope after Enterprise Design.
9	E_MAB - Mobile as Built	N/A	Mobile As Built erosion is not applicable to this value driver.
10	E2 - Nuclear Generation	N/A	Nuclear Generation erosion is not applicable to this value driver.
11	**Combined erosion factor**	100.00%	
12	**Erosion factor - Capital**	100.00%	
13	**Erosion factor - Expense incl. NEE**	100.00%	

E. ADOPTION SCHEDULE

14	Stabilization (months)	12	Months during business stabilization in which no benefit is incurred. The new process is in place but the organization is still learning how to utilize the new process.
15	Ramp (months)	24	Months over which benefit builds from zero to the full annual amount, in 24 equal steps of 1/24 once stabilization ends.
16	Full run-rate (months after start of stabilization)	36	Full run-rate is achieved after the stabilization and ramp period. From that point forward, the full benefit is realized. No release requires more than 36 months to achieve full benefit.

F. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Payroll spend, hourly rates, benefit percentages, confidence factors, and erosion do not escalate. Escalation is applied as a closing step on the year-by-year schedule under the heading RATE ESCALATION.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
17	Capital, all Benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
18	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
19	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
20	Expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
21	Non-earnings expense, all other Benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 in any year means no escalation is applied. Rates greater than 1.00000 increase the benefit. The rates shown are cumulative from a 2024 base year.

Note 1: Improvement Range represents indicative planning reference points informed by industry experience and professional judgment

Workpaper 3-33
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Overall Technology Modernization and Platform Simplification
Value Driver - App Rationalization

WP#	Workpaper Name
	Summary WPs
3-33	Testimony Table
3-33A	App Rationalization Summary
	Assumptions & Reference Rates WPs
3-33B	Assumptions - App Rationalization

Workpaper 3-33
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Overall Technology Modernization and Platform Simplification Benefits - Testimony Table

TABLE 3-42
OVERALL TECHNOLOGY MODERNIZATION AND PLATFORM SIMPLIFICATION BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Application Rationalization	$ 1.4	$ 1.4	$ 9.9	$ 15.5	$ 18.6	$ 17.8	$ 18.8	$ 8.9	$ 2.8	$ -	$ -	$ -	$ 95.2
2	Software/Hardware	-	-	-	7.0	7.1	7.2	7.4	7.5	7.7	7.8	8.0	8.2	67.9
3	**ERP Total**	**$ 1.4**	**$ 1.4**	**$ 9.9**	**$ 22.5**	**$ 25.7**	**$ 25.1**	**$ 26.2**	**$ 16.4**	**$ 10.5**	**$ 7.8**	**$ 8.0**	**$ 8.2**	**$ 163.1**
4	IT & Data	$ -	$ 12.9	$ 33.2	$ 26.3	$ 26.9	$ 27.5	$ 28.1	$ 39.0	$ 29.3	$ 29.9	$ 30.6	$ 23.4	$ 307.1
5	**GIS Total**	**$ -**	**$ 12.9**	**$ 33.2**	**$ 26.3**	**$ 26.9**	**$ 27.5**	**$ 28.1**	**$ 39.0**	**$ 29.3**	**$ 29.9**	**$ 30.6**	**$ 23.4**	**$ 307.1**
6	**Total**	**$ 1.4**	**$ 14.4**	**$ 43.1**	**$ 48.8**	**$ 52.6**	**$ 52.6**	**$ 54.2**	**$ 55.5**	**$ 39.8**	**$ 37.8**	**$ 38.6**	**$ 31.6**	**$ 470.2**

Workpaper 3-33A
Pacific Gas and Electric Company
Transformation of ERP and GIS Platforms
Value Driver - App Rationalization
(Thousands of Dollars - Escalated)

Benefit Category	Overall Technology Modernization and Platform Simplification
Value Driver	App Rationalization
Calculation Method	Bottom-up

DEFINITION

Cost savings from retirement of third-party, internally developed, and additionally licensed applications as ERP SAP-based capabilities replace legacy tools — eliminating duplication, reducing licensing costs, and minimizing ongoing management overhead. More than 100 applications identified for potential retirement based on L2 Business Capability mapping to end-state SAP solutions.

Benefit Build: Peak Benefits in a Year

App Rationalization is calculated bottom-up from individual application licensing and maintenance costs rather than from labor spend or commodity codes, because each application's retirement savings are specific to its vendor contract and cannot be derived from a spend pool or benchmark rate.

Line No.		
1	**Peak Annual Benefit, Un-escalated**	**$15,557**
2	**Peak Benefit Reached**	**2032**

YEAR OVER YEAR, UN-ESCALATED

	Component	2028	2029	2030	2031	Peak Benefit Reached 2032	2033	2034	2035	2036	2037	2038	2039	Total
3	**App Rationalization**	**$1,253**	**$1,290**	**$8,650**	**$13,267**	**$15,557**	**$14,571**	**$15,008**	**$6,971**	**$2,129**	**$0**	**$0**	**$0**	**$78,697**
4	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	Expense incl. NEE	$1,253	$1,290	$8,650	$13,267	$15,557	$14,571	$15,008	$6,971	$2,129	$0	$0	$0	$78,697
6	**CUMULATIVE**	**$1,253**	**$2,543**	**$11,194**	**$24,461**	**$40,017**	**$54,588**	**$69,597**	**$76,568**	**$78,697**	**$78,697**	**$78,697**	**$78,697**	

YEAR OVER YEAR, ESCALATED

	Component	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
7	**App Rationalization**	**$1,378**	**$1,448**	**$9,915**	**$15,531**	**$18,622**	**$17,833**	**$18,783**	**$8,915**	**$2,782**	**$0**	**$0**	**$0**	**$95,208**
8	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Expense incl. NEE	$1,378	$1,448	$9,915	$15,531	$18,622	$17,833	$18,783	$8,915	$2,782	$0	$0	$0	$95,208
10	**CUMULATIVE, ESCALATED**	**$1,378**	**$2,827**	**$12,742**	**$28,272**	**$46,895**	**$64,728**	**$83,511**	**$92,426**	**$95,208**	**$95,208**	**$95,208**	**$95,208**	

Workpaper 3-33B
Pacific Gas and Electric Company
Transformation of ERP and GIS Platforms
Assumptions - App Rationalization

A. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Escalation is applied as a closing step on the year-by-year schedule. The escalated values use the "Expense, all other benefit types" cumulative escalation rate, because App Rationalization savings are classified as non-labor expense.

Line No.	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
1	Capital, all benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
2	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
3	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
4	Expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
5	Non-earnings expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Workpaper 3-34
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Overall Technology Modernization and Platform Simplification
Value Driver - Software Hardware

WP#	Workpaper Name
	Summary WPs
3-34	Testimony Table
3-34A	Software Hardware Summary
	Assumptions & Reference Rates WPs
3-34B	Assumptions - Software Hardware

Workpaper 3-34
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Overall Technology Modernization and Platform Simplification Benefits - Testimony Table

TABLE 3-42
OVERALL TECHNOLOGY MODERNIZATION AND PLATFORM SIMPLIFICATION BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Application Rationalization	$ 1.4	$ 1.4	$ 9.9	$ 15.5	$ 18.6	$ 17.8	$ 18.8	$ 8.9	$ 2.8	$ -	$ -	$ -	$ 95.2
2	Software/Hardware	-	-	-	7.0	7.1	7.2	7.4	7.5	7.7	7.8	8.0	8.2	67.9
3	**ERP Total**	**$ 1.4**	**$ 1.4**	**$ 9.9**	**$ 22.5**	**$ 25.7**	**$ 25.1**	**$ 26.2**	**$ 16.4**	**$ 10.5**	**$ 7.8**	**$ 8.0**	**$ 8.2**	**$ 163.1**
4	IT & Data	$ -	$ 12.9	$ 33.2	$ 26.3	$ 26.9	$ 27.5	$ 28.1	$ 39.0	$ 29.3	$ 29.9	$ 30.6	$ 23.4	$ 307.1
5	**GIS Total**	**$ -**	**$ 12.9**	**$ 33.2**	**$ 26.3**	**$ 26.9**	**$ 27.5**	**$ 28.1**	**$ 39.0**	**$ 29.3**	**$ 29.9**	**$ 30.6**	**$ 23.4**	**$ 307.1**
6	**Total**	**$ 1.4**	**$ 14.4**	**$ 43.1**	**$ 48.8**	**$ 52.6**	**$ 52.6**	**$ 54.2**	**$ 55.5**	**$ 39.8**	**$ 37.8**	**$ 38.6**	**$ 31.6**	**$ 470.2**

Workpaper 3-34A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - Software Hardware
(Thousands of Dollars - Escalated)

Value Driver Software Hardware

DEFINITION

Hardware cost avoidance: $27M of hardware purchased in 2025 to support ERP will not be needed again, and is counted as Capital savings. Software support pack savings: PG&E currently pays $500K a year for version upgrades and fixes; these payments will not be needed once the system has moved to cloud, and are counted as Expense savings. These benefits apply to both the original and the tech upgrade scenarios.

Benefit Build: Peak Benefits in a Year

Line No.	Benefit	Capital / Expense	Annual Benefit
1	HW Cost Avoidance	Capital	$5,400
2	SW Support Pack Savings	Expense	$500
3	**Peak Annual Benefit**		**$5,900**

YEAR OVER YEAR, UN-ESCALATED

No benefit is counted before the first year of benefit (2031). From then on, each year carries the ongoing annual amount.

	Component	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
4	HW Cost Avoidance (Capital)	$0	$0	$0	$0	$0	$5,400	$5,400	$5,400	$5,400	$5,400	$5,400	$5,400	$5,400	$5,400
5	SW Support Pack Savings (Expense)	$0	$0	$0	$0	$0	$500	$500	$500	$500	$500	$500	$500	$500	$500
6	**Total**	**$0**	**$0**	**$0**	**$0**	**$0**	**$5,900**	**$5,900**	**$5,900**	**$5,900**	**$5,900**	**$5,900**	**$5,900**	**$5,900**	**$5,900**
7	**CUMULATIVE**	**$0**	**$0**	**$0**	**$0**	**$0**	**$5,900**	**$11,800**	**$17,700**	**$23,600**	**$29,500**	**$35,400**	**$41,300**	**$47,200**	**$53,100**

YEAR OVER YEAR, ESCALATED

	Component	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
8	HW Cost Avoidance, Escalated (Capital)	$0	$0	$0	$0	$0	$6,384	$6,502	$6,627	$6,759	$6,895	$7,034	$7,176	$7,321	$7,469
9	SW Support Pack Savings, Escalated (Expense)	$0	$0	$0	$0	$0	$585	$599	$612	$626	$639	$653	$668	$682	$697
10	**TOTAL: ALL COMPONENTS, ESCALATED**	**$0**	**$0**	**$0**	**$0**	**$0**	**$6,969**	**$7,100**	**$7,239**	**$7,385**	**$7,534**	**$7,688**	**$7,844**	**$8,004**	**$8,166**
11	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$0**	**$0**	**$6,969**	**$14,069**	**$21,308**	**$28,693**	**$36,227**	**$43,915**	**$51,759**	**$59,762**	**$67,929**

12	Peak Annual Benefit, Escalated	**$8,166**
13	Peak Year, Escalated	**2039**
14	Uplift on the highest year	**38.41%**

Workpaper 3-34B
Pacific Gas and Electric Company
ERP and GIS Transformation
Assumptions - Software Hardware (Escalated)
(Thousands of Dollars-Escalated)

A. BENEFIT INPUTS

Line No.	Parameter	Total For First 5 Years	$ / Year Over First 5 Years	$ / Year Ongoing	Notes
1	HW Cost Avoidance	$27,000	$5,400	$5,400	$27M of hardware purchased in 2025 to support ERP. This hardware purchase will not be needed again and is counted as Capital savings.
2	SW Support Pack Savings	n/a	$500	$500	PG&E currently pays $500K a year for version upgrades and fixes. These payments will not be needed once the system has moved to cloud, and are counted as Expense savings.
	B. TIMING				
3	Number of years in the first period	5			The hardware purchase is spread evenly over the first 5 years.
4	First year of benefit	2031			

C. ESCALATION BASIS

The calculation in the workpaper is the same as in the non-escalated copy, figure for figure, through net benefit. Escalation is applied as a closing step on the year-by-year schedule. HW Cost Avoidance uses the "Capital, all benefit types" cumulative escalation rate. SW Support Pack Savings uses the "Expense, all other benefit types" rate, because these are non-labor expense savings.

	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
5	Capital, all benefit types	1.07170	1.10150	1.12265	1.14196	1.16125	1.18216	1.20403	1.22714	1.25169	1.27685	1.30264	1.32895	1.35580	1.38318
6	Expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
7	Non-earnings expense, internal labor	1.08357	1.13168	1.18192	1.22624	1.27223	1.31994	1.36943	1.42079	1.47407	1.52934	1.58670	1.64620	1.70793	1.77198
8	Expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458
9	Non-earnings expense, all other benefit types	1.06162	1.07934	1.10018	1.12240	1.14619	1.17061	1.19706	1.22388	1.25154	1.27882	1.30683	1.33545	1.36469	1.39458

A rate of 1.00000 would mean no change. 1.20000 means the benefit for that year is 20 percent higher than the model states it.

Workpaper 3-35
Pacific Gas and Electric Company
ERP and GIS Transformation
Benefit Category - Overall Technology Modernization and Platform Simplification
Value Driver - IT & Data

WP#	Workpaper Name
	Summary WPs
3-35	Testimony Table
3-35A	IT & Data Summary
	Detail WPs
3-35B	IT & Data - Hardware Refresh & Cost Avoidance
	Assumptions & Reference Rates WPs
3-35C	IT & Data - Assumptions - Hardware Refresh & Cost Avoidance
3-35D	App Rationalization Walkthrough
3-35E	IT & Data - Escalation Rates

Workpaper 3-35
Pacific Gas and Electric Company
ERP and GIS Transformation
Testimony Tables

Overall Technology Modernization and Platform Simplification Benefits - Testimony Table

TABLE 3-42
OVERALL TECHNOLOGY MODERNIZATION AND PLATFORM SIMPLIFICATION BENEFIT CATEGORY BY PLATFORM AND VALUE DRIVER
(MILLIONS OF NOMINAL DOLLARS)

Line No.	Value Driver	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
1	Application Rationalization	$ 1.4	$ 1.4	$ 9.9	$ 15.5	$ 18.6	$ 17.8	$ 18.8	$ 8.9	$ 2.8	$ -	$ -	$ -	$ 95.2
2	Software/Hardware	-	-	-	7.0	7.1	7.2	7.4	7.5	7.7	7.8	8.0	8.2	67.9
3	**ERP Total**	**$ 1.4**	**$ 1.4**	**$ 9.9**	**$ 22.5**	**$ 25.7**	**$ 25.1**	**$ 26.2**	**$ 16.4**	**$ 10.5**	**$ 7.8**	**$ 8.0**	**$ 8.2**	**$ 163.1**
4	IT & Data	$ -	$ 12.9	$ 33.2	$ 26.3	$ 26.9	$ 27.5	$ 28.1	$ 39.0	$ 29.3	$ 29.9	$ 30.6	$ 23.4	$ 307.1
5	**GIS Total**	**$ -**	**$ 12.9**	**$ 33.2**	**$ 26.3**	**$ 26.9**	**$ 27.5**	**$ 28.1**	**$ 39.0**	**$ 29.3**	**$ 29.9**	**$ 30.6**	**$ 23.4**	**$ 307.1**
6	**Total**	**$ 1.4**	**$ 14.4**	**$ 43.1**	**$ 48.8**	**$ 52.6**	**$ 52.6**	**$ 54.2**	**$ 55.5**	**$ 39.8**	**$ 37.8**	**$ 38.6**	**$ 31.6**	**$ 470.2**

Workpaper 3-35A
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - IT & Data
(Thousands of Dollars - Escalated)

Benefit Category	Overall Technology Modernization and Platform Simplification
Value Driver	IT & Data
Calculation Method	Non-Labor

DEFINITION

Technology modernization and platform simplification: hardware refresh and cost avoidance, retirement of third-party and AGOL applications, virtual environment platforms, and improved platform resilience.

BENEFIT BUILD: PEAK BENEFITS IN A YEAR

The figures below are peak annual benefits - the full amount expected to be realized each year once every release is live and mature.

		Un-Escalated			Escalated		
Line No.	**Component**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**	**Capital**	**Expense Incl. Non-Earnings Expense (NEE)**	**Net Benefit (Post-Erosion)**
1	Internal Labor	$0	$0	$0	$0	$0	$0
2	External Labor	$0	$0	$0	$0	$0	$0
3	Hardware Refresh & Cost Avoidance	$15,187	$0	$15,187	$21,006	$0	$21,006
4	App Rationalization	$0	$15,347	$15,347	$0	$21,403	$21,403
5	**TOTAL VALUE DRIVER BENEFIT**	**$15,187**	**$15,347**	**$30,534**	**$21,006**	**$21,403**	**$42,409**
6	**Peak Annual Benefit**	**$30,534**					
7	**Peak Benefit Reached**	**2035**					

YEAR OVER YEAR, UN-ESCALATED

											Peak Benefit Reached					
	Component	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
8	Hardware Refresh & Cost Avoidance	$0	$0	$0	$0	$13,415	$7,087	$7,087	$7,087	$7,087	$15,187	$7,087	$7,087	$7,087	$5,315	$83,523
9	App Rationalization	$0	$0	$0	$11,511	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$11,511	$161,149
10	**TOTAL: ALL COMPONENTS**	$0	$0	$0	$11,511	$28,762	$22,434	$22,434	$22,434	$22,434	$30,534	$22,434	$22,434	$22,434	$16,826	$244,671
11	Capital	$0	$0	$0	$0	$13,415	$7,087	$7,087	$7,087	$7,087	$15,187	$7,087	$7,087	$7,087	$5,315	$83,523
12	Expense Incl. NEE	$0	$0	$0	$11,511	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$11,511	$161,149
13	**CUMULATIVE**	**$0**	**$0**	**$0**	**$11,511**	**$40,273**	**$62,707**	**$85,141**	**$107,575**	**$130,009**	**$160,544**	**$182,978**	**$205,412**	**$227,846**	**$244,671**	
14	**CUMULATIVE BENEFITS**	**$244,671**														

YEAR OVER YEAR, ESCALATED

The same schedule with the published escalation rates applied. Each line reads the escalated row on its own workpaper, where the rate is shown year by year.

	Component	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**Total**
15	Hardware Refresh & Cost Avoidance	$0	$0	$0	$0	$15,578	$8,377	$8,532	$8,696	$8,870	$19,391	$9,231	$9,418	$9,608	$7,352	$105,054
16	App Rationalization	$0	$0	$0	$12,920	$17,591	$17,966	$18,372	$18,783	$19,208	$19,627	$20,057	$20,496	$20,945	$16,052	$202,016
17	**TOTAL, ALL COMPONENTS, ESCALATED**	$0	$0	$0	$12,920	$33,169	$26,343	$26,904	$27,480	$28,078	$39,018	$29,288	$29,914	$30,553	$23,404	$307,070
18	Capital, escalated	$0	$0	$0	$0	$15,578	$8,377	$8,532	$8,696	$8,870	$19,391	$9,231	$9,418	$9,608	$7,352	$105,054
19	Expense Incl. NEE, escalated	$0	$0	$0	$12,920	$17,591	$17,966	$18,372	$18,783	$19,208	$19,627	$20,057	$20,496	$20,945	$16,052	$202,016
20	**CUMULATIVE, ESCALATED**	**$0**	**$0**	**$0**	**$12,920**	**$46,089**	**$72,432**	**$99,337**	**$126,816**	**$154,895**	**$193,912**	**$223,200**	**$253,114**	**$283,666**	**$307,070**	

Workpaper 3-35B
Pacific Gas and Electric Company
ERP and GIS Transformation
IT & Data - Hardware Refresh & Cost Avoidance
(Thousands of Dollars - Escalated)

STEP 1 OF 2: PEAK ANNUAL BENEFIT

Total Annual Cost × % Impacted Spend

Line No.	IT & Data Categories	Total Annual Cost	Peak Annual Benefit (Pre-Confidence Adjustment)
3	On-prem Contingency Cost Avoidance	$10,800	$10,800
4	Hardware Refresh Cost avoidance	$9,449	$9,449
5	**TOTAL**		**$20,249**

STEP 2 OF 2: CONFIDENCE ADJUSTMENT

This step applies the Exclusivity %

Line No.	IT & Data Categories	Peak Annual Benefit (Pre-Confidence Adjustment)	Exclusivity	Capital %	Net Peak Annual Benefit
3	On-prem Contingency Cost Avoidance	$10,800	75.00%	100.00%	$8,100
4	Hardware Refresh Cost avoidance	$9,449	75.00%	100.00%	$7,087
5	**TOTAL**				**$15,187**
6	**NET BENEFIT (POST-EROSION)**	**$15,187**			
7	Capital	$15,187	100.00%		
8	Expense incl. NEE	$0	0.00%		

YEAR-OVER-YEAR SCHEDULE, UN-ESCALATED

Each IT & Data category earns its run-rate benefit once it has finished ramping. A one-time avoidance is earned in full (12 months) only in the years shown. The annual benefit is the run rate × Months Realized ÷ 12.

Note: On-prem Contingency Cost Avoidance is a one-time benefit for the years 2030 and 2035

	IT & Data Categories	Benefit Starts	Run Rate Reached	Benefits Stop	Annual Benefit at Run Rate
9	On-prem Contingency Cost Avoidance	N/A	N/A	N/A	$8,100
10	Hardware Refresh Cost avoidance	Apr 2030	Apr 2030	Sep 2039	$7,087
11	**Total**				**$15,187**

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
12	Months Realized - On-prem Contingency Cost Avoidance	0.00	0.00	0.00	0.00	12.00	0.00	0.00	0.00	0.00	12.00	0.00	0.00	0.00	0.00	24.00
13	Months Realized - Hardware Refresh Cost avoidance	0.00	0.00	0.00	0.00	9.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	114.00
14	**Annual Benefit**	**0**	**0**	**0**	**0**	**$13,415**	**$7,087**	**$7,087**	**$7,087**	**$7,087**	**$15,187**	**$7,087**	**$7,087**	**$7,087**	**$5,315**	**$83,523**
15	Capital	0	0	0	0	$13,415	$7,087	$7,087	$7,087	$7,087	$15,187	$7,087	$7,087	$7,087	$5,315	$83,523
16	Expense incl. NEE	0	0	0	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	CUMULATIVE	0	0	0	0	$13,415	$20,502	$27,588	$34,675	$41,761	$56,948	$64,035	$71,121	$78,208	$83,523	

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-35E.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
18	Capital benefit, before escalation	$0	$0	$0	$0	$13,415	$7,087	$7,087	$7,087	$7,087	$15,187	$7,087	$7,087	$7,087	$5,315	$83,523
19	Expense benefit incl. NEE, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
21	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
22	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$0**	**$15,578**	**$8,377**	**$8,532**	**$8,696**	**$8,870**	**$19,391**	**$9,231**	**$9,418**	**$9,608**	**$7,352**	**$105,054**
23	Capital benefit, escalated	$0	$0	$0	$0	$15,578	$8,377	$8,532	$8,696	$8,870	$19,391	$9,231	$9,418	$9,608	$7,352	$105,054
24	Expense benefit incl. NEE, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Cumulative, escalated	$0	$0	$0	$0	$15,578	$23,956	$32,488	$41,184	$50,055	$69,446	$78,677	$88,095	$97,703	$105,054	
26	Peak Annual Benefit, before escalation	15,187	The highest year of the before-escalation Capital + Expense rows above.													
27	Peak Annual Benefit, Escalated	19,391	The highest year on the Escalated Annual Benefit row above.													
28	Uplift on the highest year	27.68%	The % increase of peak annual benefit due to escalation.													

GLOSSARY

% Impacted Spend	The share of an IT & Data category's total annual cost that the program affects.
Confidence Factor	Realization Rate multiplied by Exclusivity.
Exclusivity %	Percentage of the Benefit attributable to GIS, excluding benefits associated with other initiatives.
IT & Data Category	A single benefit opportunity, with its own inputs and published ramp dates.
Months Realized	The number of full-rate months of benefit earned in a year. A month that is still ramping counts as a fraction.
NEE (Non-Earnings Expense)	Expense that does not flow through earnings. Reported with expense as "Expense incl. NEE."
Peak Annual Benefit	The full annual benefit once every IT & Data category has reached its run rate.
Run Rate	The full annual benefit of an IT & Data category once it has finished ramping.

Workpaper 3-35C
Pacific Gas and Electric Company
ERP and GIS Transformation
IT & Data - Assumptions - Hardware Refresh & Cost Avoidance
(Thousands of Dollars - Escalated)

Assumptions & Reference Rates - Modernized IT Infrastructure - Hardware Refresh & Cost Avoidance

A. EXCLUSIVITY %

Line No.		Value
1	Exclusivity	75.00%

B. CAPITAL / EXPENSE SPLIT

		Value
2	Capital % for all IT & Data categories	100.00%
3	Expense % for all IT & Data categories	0.00%

Workpaper 3-35D
Pacific Gas and Electric Company
ERP and GIS Transformation
Value Driver - App Rationalization
(Thousands of Dollars - Escalated)

Benefit Category	Overall Technology Modernization and Platform Simplification
Value Driver	App Rationalization
Calculation Method	Bottom-up

DEFINITION

Cost savings from retirement of third-party, internally developed, and additionally licensed applications as SAP-based capabilities replace legacy tools - eliminating duplication, reducing licensing costs, and minimizing ongoing management overhead. More than 100 applications identified for potential retirement based on L2 Business Capability mapping to end-state SAP solutions.

Benefit Build: Peak Benefits in a Year

App Rationalization is calculated bottom-up rather than from labor spend or commodity codes

1	Capital	$0
2	Expense incl. NEE	$15,347
3	**Peak Annual Benefit**	**$15,347**

YEAR OVER YEAR, UN-ESCALATED

Line No.		Benefit Starts	Run Rate Reached	Benefits Stop
4	All app tiers	Apr 2029	Apr 2029	Sep 2039

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
5	Months Realized	0.00	0.00	0.00	9.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	9.00	126.00
6	App Rationalization	$0	$0	$0	$11,511	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$11,511	$161,149
7	Capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Expense Incl. NEE	$0	$0	$0	$11,511	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$11,511	$161,149
9	**CUMULATIVE**	**$0**	**$0**	**$0**	**$11,511**	**$26,858**	**$42,206**	**$57,553**	**$72,901**	**$88,248**	**$103,596**	**$118,943**	**$134,291**	**$149,638**	**$161,149**	

RATE ESCALATION

A benefit earned in a given year is multiplied by the cumulative escalation rate for that year and cost type. The rates are on Workpaper 3-35E.

	Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
10	Capital benefit, before escalation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Expense benefit incl. NEE, before escalation	$0	$0	$0	$11,511	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$15,347	$11,511	$161,149
12	Capital escalation rate	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183	
13	Expense escalation rate	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580	
14	**Escalated Annual Benefit**	**$0**	**$0**	**$0**	**$12,920**	**$17,591**	**$17,966**	**$18,372**	**$18,783**	**$19,208**	**$19,627**	**$20,057**	**$20,496**	**$20,945**	**$16,052**	**$202,016**
15	Capital benefit, escalated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
16	Expense benefit incl. NEE, escalated	$0	$0	$0	$12,920	$17,591	$17,966	$18,372	$18,783	$19,208	$19,627	$20,057	$20,496	$20,945	$16,052	$202,016
17	Cumulative, escalated	$0	$0	$0	$12,920	$30,511	$48,477	$66,849	$85,632	$104,840	$124,467	$144,523	$165,019	$185,964	$202,016	
18	Peak Annual Benefit, before escalation	$15,347	The highest year of the before-escalation Capital + Expense rows above.													
19	Peak Annual Benefit, Escalated	$20,945	The highest year on the Escalated Annual Benefit row above.													
20	Uplift on the highest year	36.47%	The % increase of peak annual benefit due to escalation.													

Workpaper 3-35E
Pacific Gas and Electric Company
ERP and GIS Transformation
IT & Data - Escalation Rates
(Thousands of Dollars - Escalated)

ESCALATION BASIS

The calculation in this workpaper is in nominal dollars of the year the benefit is earned. A benefit earned in a given year is multiplied by the cumulative rate for that year and cost type. Capital and expense escalate at different rates, and internal labour expense escalates faster than other expense.

Line No.	CUMULATIVE ESCALATION RATES	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
1	Capital, all benefit types	1.078149	1.099011	1.120277	1.141954	1.161254	1.182157	1.204027	1.227144	1.251687	1.276846	1.302638	1.328951	1.355796	1.383183
2	Expense, internal labor	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976
3	Non-earnings expense, internal labor	1.098029	1.139205	1.181925	1.226247	1.272228	1.319936	1.369434	1.420788	1.474067	1.529345	1.586695	1.646196	1.707929	1.771976
4	Expense, all other benefit types	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580
5	Non-earnings expense, all other benefit types	1.051619	1.074702	1.098291	1.122399	1.146194	1.170608	1.197064	1.223878	1.251537	1.278821	1.306827	1.335447	1.364693	1.394580

WORKPAPERS SUPPORTING CHAPTER 4

PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
WORKPAPERS SUPPORTING
CHAPTER 4 - REVENUE REQUIREMENT

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ERP AND GIS TRANSFORMATION APPLICATION
Workpapers Supporting Chapter 4, Revenue Requirement
(Millions of Nominal Dollars)

Line No.	Reference	Description	Expense	Capital	Total	Reference	Expense	Difference	Capital & Cost of Removal	Difference	Total
1	*Chapter 3, Table 3-1*	ERP	164.4	2,043.8	2,208.2	*ERP Expense Summary & RO Model Input Tab*	164.3	0.1	2,043.7	0.1	2,208.0
2	*Chapter 3, Table 3-1*	GIS	172.5	661.5	834.0	*GIS Expense Summary & RO Model Input Tab*	172.5	0.0	661.5	(0.0)	834.0
3	*Chapter 3, Table 3-1*	Total	336.9	2,705.3	3,042.2	Total	336.8	0.1	2,705.2	0.1	3,042.0
								Note 1		*Note 1*	

Note 1: The $0.1 million differences in Expense and Capital between Chapter 3, Table 3-1 and RO Model Input Tab are due to rounding.

PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
REVENUE REQUIREMENT – SUMMATION OF ALL YEARS - POST CAPITALIZATION
(IN THOUSANDS OF DOLLARS)

Line No.	Program	Electric Distribution			Electric Generation			Gas Distribution			Gas Transmission			Total Functional Areas		
		Expense	Capital	Total	Expense	Capital	Total	Expense	Capital	Total	Expense	Capital	Total	Expense	Capital	Total
1	ERP	33,490	330,642	364,132	8,500	34,215	42,715	10,631	105,096	115,727	4,704	46,519	51,223	57,325	516,472	573,797
2	GIS	74,416	110,760	185,176	18,887	11,442	30,328	23,622	35,158	58,780	10,453	15,558	26,011	127,378	172,918	300,296
3	Grand Total	**107,906**	**441,402**	**549,309**	**27,386**	**45,657**	**73,043**	**34,253**	**140,254**	**174,507**	**15,157**	**62,077**	**77,234**	**184,703**	**689,390**	**874,093**

WORKPAPER 4-3
PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
ERP TRANSFORMATION - EXPENSE AND CAPITAL REVENUE REQUIREMENT SUMMARY - NOVEMBER 3, 2026 THROUGH DECEMBER 31, 2030
(whole dollars)

UNADJUSTED REVENUE REQUIREMENT FROM RESULT OF OPERATIONS MODEL (TOTAL COMPANY)

Line No.	Program	Capital / Expense RRQ	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
1	ERP	Expense	480,455	4,630,673	12,657,772	32,211,569	50,591,749	3,553,392	10,172,588	19,351,824	30,676,928	164,326,950
2	ERP	Capital				2,583,384	9,451,046	46,319,751	114,140,804	147,949,673	264,530,300	582,391,574
3		**Unadjusted RRQ from RO model (Total Company)**	**480,455**	**4,630,673**	**12,657,772**	**34,794,952**	**60,042,795**	**49,873,143**	**124,313,392**	**167,301,497**	**295,207,228**	**746,718,524**

EXCLUSION OF REMAINING 2026 EXPENSE REVENUE REQUIREMENT COVERED BY VOLUMETRIC PERFORMANCE FEES ("VPF")

Line No.	Program	Capital / Expense RRQ	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
4	ERP	Expense				(32,211,569)	(50,591,749)	-	-	-	-	(82,803,318)
5	ERP	Capital					-	-	-	-	-	-
6		**Exclusion of RRQ covered by VPF**	**-**	**-**	**-**	**(32,211,569)**	**(50,591,749)**	**-**	**-**	**-**	**-**	**(82,803,318)**

EXCLUSION OF REVENUE REQUIREMENT PRIOR TO NOVEMBER 3, 2026 FILING DATE (TOTAL COMPANY)

Line No.	Program	Capital / Expense RRQ	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
7	ERP	Expense	(480,455)	(4,630,673)	(12,657,772)	-	-	-	-	-	-	(17,768,901)
8	ERP	Capital	-	-	-	(2,583,384)	(7,971,419)	-	-	-	-	(10,554,802)
9		**Exclusion of RRQ prior to November 3, 2026 (Total Company)**	**(480,455)**	**(4,630,673)**	**(12,657,772)**	**(2,583,384)**	**(7,971,419)**	**-**	**-**	**-**	**-**	**(28,323,703)**

NET REVENUE REQUIREMENT REQUEST FROM NOVEMBER 3, 2026 FILING DATE (TOTAL COMPANY)

Line No.	Program	Capital / Expense RRQ	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
10	ERP	Expense	-	-	-	-	-	3,553,392	10,172,588	19,351,824	30,676,928	63,754,732
11	ERP	Capital	-	-	-	-	1,479,628	46,319,751	114,140,804	147,949,673	264,530,300	574,420,155
12		**Net RRQ Request from November 6, 2026 (Total Company)**	**-**	**-**	**-**	**-**	**1,479,628**	**49,873,143**	**124,313,392**	**167,301,497**	**295,207,228**	**638,174,887**

PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
ERP TRANSFORMATION - EXPENSE AND CAPITAL REVENUE REQUIREMENT SUMMARY - NOVEMBER 3, 2026 THROUGH DECEMBER 31, 2030
(whole dollars)

UNADJUSTED REVENUE REQUIREMENT FROM RESULT OF OPERATIONS MODEL (TOTAL COMPANY)

LABOR ALLOCATION FACTORS FOR EXPENSE RRQ (CPUC vs. FERC)
(whole dollars)

Line No.	Functional Area (s)	2027	2028	2029	2030
13	**CPUC**	**89.9%**	**89.9%**	**89.9%**	**89.9%**
14	Electric Distribution	52.5%	52.5%	52.5%	52.5%
15	Electric Generation	13.3%	13.3%	13.3%	13.3%
16	Gas Distribution	16.7%	16.7%	16.7%	16.7%
17	Gas Transmission	7.4%	7.4%	7.4%	7.4%
18	**FERC**				
19	Electric Transmission (excluded)	**10.1%**	**10.1%**	**10.1%**	**10.1%**
20	**Total**	**100%**	**100%**	**100%**	**100%**

ALLOCATION OF EXPENSE REVENUE REQUIREMENT (CPUC JURISDICTION)
(whole dollars)

	Program	Functional Area (s)		2027	2028	2029	2030	Total
21	**ERP**	Electric Distribution		1,866,582	5,343,618	10,165,432	16,114,461	33,490,092
22	**Transformation**	Electric Generation		473,735	1,356,201	2,579,968	4,089,821	8,499,725
23	**Expense RRQ**	Gas Distribution		592,506	1,696,216	3,226,797	5,115,188	10,630,707
24	**REQUEST**	Gas Transmission		262,194	750,603	1,427,910	2,263,553	4,704,259
25		**Total CPUC Expense RRQ Request (without RF&U and Interest)**	-	**3,195,017**	**9,146,638**	**17,400,107**	**27,583,023**	**57,324,784**

LABOR ALLOCATION FACTORS FOR CAPITAL COMMON, GENERAL AND INTANGIBLE PLANT RRQ (CPUC vs. FERC)
(whole dollars)

Line No.	Functional Area (s)	2026	2027	2028	2029	2030
26	**CPUC**	**88.9%**	**89.9%**	**89.9%**	**89.9%**	**89.9%**
27	Electric Distribution	45.1%	57.6%	57.6%	57.6%	57.6%
28	Electric Generation	8.7%	5.9%	5.9%	5.9%	5.9%
29	Gas Distribution	23.8%	18.3%	18.3%	18.3%	18.3%
30	Gas Transmission	11.3%	8.1%	8.1%	8.1%	8.1%
31	**FERC**					
32	Electric Transmission (excluded)	**11.1%**	**10.1%**	**10.1%**	**10.1%**	**10.1%**
33	**Total**	**100.0%**	**100%**	**100%**	**100%**	**100%**

ALLOCATION OF CAPITAL REVENUE REQUIREMENT (CPUC JURISDICTION)

No.	Program	Functional Area (s)	2026	2027	2028	2029	2030	Total
34	**ERP**	Electric Distribution	666,690	26,677,092	65,737,502	85,209,159	152,351,836	330,642,278
35	**Transformation**	Electric Generation	128,038	2,755,783	6,790,780	8,802,231	15,738,168	34,215,001
36	**Capital RRQ**	Gas Distribution	352,237	8,468,067	20,866,952	27,047,809	48,360,803	105,095,868
37	**REQUEST**	Gas Transmission	167,881	3,747,256	9,233,963	11,969,092	21,400,435	46,518,627
38		**Total CPUC Capital RRQ Request (without RF&U and Interest)**	**1,314,846**	**41,648,198**	**102,629,196**	**133,028,290**	**237,851,243**	**516,471,774**

TOTAL ERP TRANSFORMATION REVENUE REQUIREMENT REQUEST FROM NOVEMBER 3, 2026 (CPUC JURISDICTION)

Line No.	Program	Functional Area (s)	2026	2027	2028	2029	2030	Total
39	**ERP**	Electric Distribution	666,690	28,543,674	71,081,119	95,374,590	168,466,297	364,132,370
40	**Transformation**	Electric Generation	128,038	3,229,518	8,146,981	11,382,199	19,827,990	42,714,726
41	**Total RRQ**	Gas Distribution	352,237	9,060,573	22,563,168	30,274,606	53,475,991	115,726,575
42	**REQUEST**	Gas Transmission	167,881	4,009,450	9,984,566	13,397,001	23,663,989	51,222,886
43		**Total CPUC Expense and Capital RRQ Request from November 3, 2026 (without RF&U and Interest)**	**1,314,846**	**44,843,215**	**111,775,834**	**150,428,397**	**265,434,266**	**573,796,558**

WORKPAPER 4-4
PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
GIS TRANSFORMATION - EXPENSE AND CAPITAL REVENUE REQUIREMENT SUMMARY - JANUARY 1, 2027 THROUGH DECEMBER 31, 2030
(whole dollars)

2027-2030 REVENUE REQUIREMENT FROM RESULT OF OPERATIONS MODEL (TOTAL COMPANY)

Line No.	Program	Capital / Expense RRQ	2024	2025	2026	2027	2028	2029	2030	Total
1	GIS	Expense	1,577,734	7,755,602	21,471,171	8,402,884	36,872,134	49,744,168	46,646,221	172,469,915
2	GIS	Capital	(0)	0	0	(2,676,005)	26,574,066	67,332,085	101,083,846	192,313,991
3		**Unadjusted RRQ from RO model (Total Company)**	**1,577,734**	**7,755,602**	**21,471,171**	**5,726,878**	**63,446,200**	**117,076,253**	**147,730,067**	**364,783,906**

EXCLUSION OF EXPENSE REVENUE REQUIREMENT PRIOR TO JANUARY 1, 2027 FILING DATE (TOTAL COMPANY)

Line No.	Program	Expense	2024	2025	2026	2027	2028	2029	2030	Total
4	GIS	Expense	(1,577,734)	(7,755,602)	(21,471,171)					(30,804,508)
5	GIS	Capital	(0)	0	0					0
			(1,577,734)	**(7,755,602)**	**(21,471,171)**	-	-	-	-	**(30,804,508)**

ADJUSTED REVENUE REQUIREMENT FROM JANUARY 1, 2027 FILING DATE (TOTAL COMPANY)

Line No.	Program	Capital / Expense RRQ	2024	2025	2026	2027	2028	2029	2030	Total
6	GIS	Expense	-	-	-	8,402,884	36,872,134	49,744,168	46,646,221	141,665,407
7	GIS	Capital	-	-	-	(2,676,005)	26,574,066	67,332,085	101,083,846	192,313,991
			-	**-**	**-**	**5,726,878**	**63,446,200**	**117,076,253**	**147,730,067**	**333,979,399**

LABOR ALLOCATION FACTORS FOR EXPENSE RRQ (CPUC vs. FERC)
(whole dollars)

Line No.	Functional Area (s)	2024	2025	2026	2027	2028	2029	2030
8	**CPUC**				**89.9%**	**89.9%**	**89.9%**	**89.9%**
9	Electric Distribution				52.5%	52.5%	52.5%	52.5%
10	Electric Generation				13.3%	13.3%	13.3%	13.3%
11	Gas Distribution				16.7%	16.7%	16.7%	16.7%
12	Gas Transmission				7.4%	7.4%	7.4%	7.4%
13	**FERC**							
14	Electric Transmission (excluded)				**10.1%**	**10.1%**	**10.1%**	**10.1%**
15	**Total**				**100%**	**100%**	**100%**	**100%**

PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
GIS TRANSFORMATION - EXPENSE AND CAPITAL REVENUE REQUIREMENT SUMMARY - JANUARY 1, 2027 THROUGH DECEMBER 31, 2030
(whole dollars)

2027-2030 REVENUE REQUIREMENT FROM RESULT OF OPERATIONS MODEL (TOTAL COMPANY)

ALLOCATION OF 2027-2030 EXPENSE REVENUE REQUIREMENT (CPUC vs. FERC)
(whole dollars)

	Program	Functional Area (s)	2024	2025	2026	2027	2028	2029	2030	Total
16		Electric Distribution				4,413,999	19,368,777	26,130,402	24,503,064	74,416,241
17	**GIS Expense RRQ**	Electric Generation				1,120,265	4,915,761	6,631,849	6,218,834	18,886,708
18	**REQUEST (CPUC)**	Gas Distribution				1,401,129	6,148,200	8,294,532	7,777,969	23,621,830
19		Gas Transmission				620,022	2,720,678	3,670,464	3,441,877	10,453,041
20		**Total CPUC Expense RRQ Request (without RF&U and Interest)**	**-**	**-**	**-**	**7,555,415**	**33,153,415**	**44,727,248**	**41,941,743**	**127,377,821**

LABOR ALLOCATION FACTORS FOR CAPITAL COMMON, GENERAL AND INTANGIBLE PLANT RRQ (CPUC vs. FERC)
(whole dollars)

Line No.	Functional Area (s)	2024	2025	2026	2027	2028	2029	2030
21	**CPUC**				**89.9%**	**89.9%**	**89.9%**	**89.9%**
22	Electric Distribution				57.6%	57.6%	57.6%	57.6%
23	Electric Generation				5.9%	5.9%	5.9%	5.9%
24	Gas Distribution				18.3%	18.3%	18.3%	18.3%
25	Gas Transmission				8.1%	8.1%	8.1%	8.1%
26	**FERC**							
27	Electric Transmission (excluded)				**10.1%**	**10.1%**	**10.1%**	**10.1%**
28	**Total**				**100%**	**100%**	**100%**	**100%**

ALLOCATION OF 2027-2030 CAPITAL REVENUE REQUIREMENT (CPUC JURISDICTION)

Line No.	Program	Functional Area (s)	2024	2025	2026	2027	2028	2029	2030	Total
29		Electric Distribution	-	-	-	(1,541,201)	15,304,892	38,778,797	58,217,563	110,760,052
30	**GIS Capital RRQ**	Electric Generation	-	-	-	(159,208)	1,581,018	4,005,907	6,013,960	11,441,676
31	**REQUEST (CPUC)**	Gas Distribution	-	-	-	(489,221)	4,858,208	12,309,492	18,479,909	35,158,389
32		Gas Transmission	-	-	-	(216,488)	2,149,835	5,447,149	8,177,658	15,558,154
33		**Total CPUC Capital RRQ Request (without RF&U and Interest)**	**-**	**-**	**-**	**(2,406,118)**	**23,893,953**	**60,541,345**	**90,889,091**	**172,918,270**

TOTAL GIS TRANSFORMATION REVENUE REQUIREMENT REQUEST (CPUC JURISDICTION)

Line No.	Program	Functional Area (s)	2024	2025	2026	2027	2028	2029	2030	Total
34		Electric Distribution	-	-	-	2,872,799	34,673,669	64,909,199	82,720,627	185,176,293
35	**GIS Total RRQ**	Electric Generation	-	-	-	961,057	6,496,779	10,637,756	12,232,793	30,328,384
36	**REQUEST (CPUC)**	Gas Distribution	-	-	-	911,908	11,006,408	20,604,025	26,257,878	58,780,219
37		Gas Transmission	-	-	-	403,534	4,870,513	9,117,613	11,619,535	26,011,195
38		**Total 2027-2030 CPUC Expense and Capital RRQ Request (without RF&U and Interest)**	**-**	**-**	**-**	**5,149,297**	**57,047,368**	**105,268,592**	**132,830,833**	**300,296,091**

Workpaper 4-5
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

Analysis of Monthly Data - Initial Investment

		Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Analysis Period			**Jan-24 Through**	**Dec-43**																
Analysis Life		20	Years																	
Sensitivity		0.01																		
Jurisdiction		CPUC																		
	Fixed Costs	1.000000																		
	Variable Costs	1.000000																		
Plant Investment (Nominal)																				
Gross Plant Additions		**2,043,526,749**	**Input ====>**																	
Common	CMP30302: SW	215,264,108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2024-2026 Cap Adds	5,096,132	-	-	-	-	-	-	-	-	-	-	-	-	982,965	-	-	-	-	-
Common	CMP39101:Computer Equipment	30,465,229	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds	1,792,695,280																		
Removal Costs																				
COF ED	CMP30302: SW	-																		
	CMP30304: SW 2024-2026 Cap Adds	-																		
	CMP39101:Computer Equipment	142,322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expense Estimates (Nominal)			**Input ====>**																	
Expense		-																		
Production																				
	Labor	-																		
	Materials & Services	-																		
	Other	-																		

Book Capitalization				Inpute Rate	Inpute Rate	Inpute Rate			Sunk Investment (End of Base Year)			
Depreciation - Factors		Life	Salvage	1/1/2024	1/1/2027				Avg. Age	Initial Plant	Initial Reserve	Eligible for Proeprty Tax
	CMP30302: SW		0%	17.19%	20.57%	0.00%	0.00%	0.00%				
	CMP30304: SW 2024-2026 Cap Adds		0%	10.05%	8.12%	0.00%	0.00%	0.00%				
	CMP39101:Computer Equipment		0%	24.87%	19.49%	0.00%	0.00%	0.00%				x
	CMP30304: SW 2027-2030 Cap Adds		0%	10.05%	8.12%	0.00%	0.00%	0.00%				

Depreciation - Amounts			**Input ====>**																	
	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			
	CMP39101:Computer Equipment																			

Taxes		**Rate**	**Input ====>**	Note: If use composite property tax rate, enter rate in cell E162, otherwise overwrite rate at each year in July column.																
Property Tax Rate		1.188470%							1.309%											
Property Tax Amount ($)																				
Business and Other Taxes		0.00%																		
Payroll (Percent of Labor)		0.00%																		
State Tax Rate		8.84%																		
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)		Prior																		
Composite Federal & State		27.98%																		

						Accumulated	Straight			
Federal Tax Depreciation - Factors		Life	Method	Factor	Basis Adj.	Deferred Tax	Line Basis	Normalization	Tax Repair %	Software FL %
	CMP30302: SW	3	SL	1.0	1.00000		100.00%	Normalized	0.00%	0.00%
	CMP30304: SW 2024-2026 Cap Adds	3	SL	1.0	0.90346		90.35%	Normalized	0.00%	9.65%
	CMP39101:Computer Equipment	5	MACRS	2.0	1.00000		100.00%	Normalized	0.00%	0.00%
	CMP30304: SW 2027-2030 Cap Adds	3	SL	1.0	0.90470		90.47%	Normalized	0.00%	9.53%

Federal Tax Depreciation - Amounts		Incentive %	**Input ====>**																	
	CMP30302: SW	0%																		
	CMP30304: SW 2024-2026 Cap Adds	0%																		

Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

Analysis of Monthly Data - Initial Investment

	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
					Accumulated														
State Tax Depreciation - Factors	Life	Method	Factor	Basis Adj.	Deferred Tax	Normalization													
CMP30302: SW	3	SL	1.0	1.00000		Flow-through													
CMP30304: SW 2024-2026 Cap Adds	3	SL	1.0	0.90346		Flow-through													
CMP39101:Computer Equipment	6	ADR_SYD	2.0	1.00000		Flow-through													
CMP30304: SW 2027-2030 Cap Adds	3	SL	1.0	0.90470		Flow-through													
		Input ====>																	
Software Expense Adjustment	-																		
Deferred Investment Tax Credit																			
Removal Costs	142,322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repair Allowance																			
Federal	-	-																	
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																			
Federal	170,838,061																		
State	171,330,063	-	-	-	-	-	-	-	-	-	-	-	-	94,900	-	-	-	-	-

Factors

	Rate
Pension & Benefit	0.000%
F&U Revenue Factores	**Input ====>**
Uncollectibles (Avg. Rate)	Electric
Franchise	Electric
Tot aF&U expense factor	Electric

Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Capital Structure (%)

Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost of Capital (%)

Debt	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%
Equity	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.28%	10.28%	10.28%	10.28%	10.28%	10.28%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.66%	7.66%	7.66%	7.66%	7.66%	7.66%

Book Depreciation Rates

			01-24	02-24	03-24	04-24	05-24	06-24	07-24	08-24	09-24	10-24	11-24	12-24	01-25	02-25	03-25	04-25	05-25	06-25
	Monthly Rate	-																		
2	CMP30302: SW	0.00%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%
3	CMP30304: SW 2024-2026 Cap Adds	0.00%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%

Federal Tax Depreciation Rates

CMP30302: SW

Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

CMP30304: SW 2024-2026 Cap Adds

Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	0.9035																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

Analysis of Monthly Data - Initial Investment

	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
CMP39101:Computer Equipment																			
Life	5																		
Method	MACRS																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	20.000	32.000	19.200	11.520	11.520	5.760	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	20.000	52.000	71.200	82.720	94.240	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	0.9047																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																			
CMP30302: SW																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	0.9035																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP39101:Computer Equipment																			
Life	6																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	27.778	20.000	15.556	11.111	6.667	2.222	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	44.444	64.444	80.000	91.111	97.778	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.27778	0.20000	0.15556	0.11111	0.06667	0.02222	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	0.9047																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-5
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

			Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28
Analysis Period																																
Analysis Life																																
Sensitivity																																
Jurisdiction																																
	Fixed Costs																															
	Variable Costs																															
Plant Investment (Nominal)																																
Gross Plant Additions																																
Common	CMP30302: SW		-	-	-	-	-	2,783,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55,762,895	-	-	-	-	-	-	-
Common	CMP30304: SW 2024-2026 Cap Adds		-	-	-	3,258,859	62,359	781,004	4,501	6,444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP39101:Computer Equipment		-	-	23,989,490	(46,303)	96,198	180,017	143,547	107,055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,995,226	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds																				-	-	-	-	-	617,659,977	-	-	-	-	-	-	-
Removal Costs																																
COR ED	CMP30302: SW																															
	CMP30304: SW 2024-2026 Cap Adds																															
	CMP39101:Computer Equipment		-	-	-	139,221	591	1,107	882	521	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expense Estimates (Nominal)																																
Expense																																
Production																																
	Labor																															
	Materials & Services																															
	Other																															
Book Capitalization																																
Depreciation - Factors																																
	CMP30302: SW																															
	CMP30304: SW 2024-2026 Cap Adds																															
	CMP39101:Computer Equipment																															
	CMP30304: SW 2027-2030 Cap Adds																															
Depreciation - Amounts																																
	CMP30302: SW																															
	CMP30304: SW 2024-2026 Cap Adds																															
	CMP39101:Computer Equipment																															
Taxes																																
Property Tax Rate			1.429%												1.474%											1.512%							
Property Tax Amount ($)																																
Business and Other Taxes																																
Payroll (Percent of Labor)																																
State Tax Rate																																
Federal Tax Rate			21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																
Composite Federal & State																																
Federal Tax Depreciation - Factors																																
	CMP30302: SW																															
	CMP30304: SW 2024-2026 Cap Adds																															
	CMP39101:Computer Equipment																															
	CMP30304: SW 2027-2030 Cap Adds																															
Federal Tax Depreciation - Amounts																																
	CMP30302: SW																															
	CMP30304: SW 2024-2026 Cap Adds																															

Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28
State Tax Depreciation - Factors																															
CMP30302: SW																															
CMP30304: SW 2024-2026 Cap Adds																															
CMP39101:Computer Equipment																															
CMP30304: SW 2027-2030 Cap Adds																															
Software Expense Adjustment																															
Deferred Investment Tax Credit																															
Removal Costs	-	-	-	139,221	591	1,107	882	521	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repair Allowance																															
Federal																															
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																															
Federal																			-	-	-	-	-	58,860,998	-	-	-	-	-	-	-
State	-	-	-	314,624	6,020	75,401	435	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58,860,998	-	-	-	-	-	-	-
Factors																															
Pension & Benefit																															
F&U Revenue Factores																															
Uncollectibles (Avg. Rate)																															
Franchise																															
Tot aF&U expense factor																															
Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Structure (%)																															
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																															
Debt	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	10.28%	10.28%	10.28%	10.28%	10.28%	10.28%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.66%	7.66%	7.66%	7.66%	7.66%	7.66%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																															
Monthly Rate	07-25	08-25	09-25	10-25	11-25	12-25	01-26	02-26	03-26	04-26	05-26	06-26	07-26	08-26	09-26	10-26	11-26	12-26	01-27	02-27	03-27	04-27	05-27	06-27	07-27	08-27	09-27	10-27	11-27	12-27	01-28
2 CMP30302: SW	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%
3 CMP30304: SW 2024-2026 Cap Adds	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
Federal Tax Depreciation Rates																															
CMP30302: SW																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28
CMP39101:Computer Equipment																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																															
CMP30302: SW																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP39101:Computer Equipment																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																															
Life																															
Method																															
Factor																															
Basis Adjustment																															
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-5
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

			Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30
Analysis Period																																					
Analysis Life																																					
Sensitivity																																					
Jurisdiction																																					
	Fixed Costs																																				
	Variable Costs																																				
Plant Investment (Nominal)																																					
Gross Plant Additions																																					
Common	CMP30302: SW		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62,289,156	-	-	-	-	-	-	-	-	-	-	94,428,557	-	-	-	-	-	-
Common	CMP30304: SW 2024-2026 Cap Adds																		-											-						
Common	CMP39101:Computer Equipment		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	724,236,421	-	-	-	-	-	-	-	-	-	-	450,798,882	-	-	-	-	-	-
Removal Costs																																					
COE ED	CMP30302: SW																																				
	CMP30304: SW 2024-2026 Cap Adds																																				
	CMP39101:Computer Equipment		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expense Estimates (Nominal)																																					
Expense																																					
Production																																					
	Labor																																				
	Materials & Services																																				
	Other																																				
Book Capitalization																																					
Depreciation - Factors																																					
	CMP30302: SW																																				
	CMP30304: SW 2024-2026 Cap Adds																																				
	CMP39101:Computer Equipment																																				
	CMP30304: SW 2027-2030 Cap Adds																																				
Depreciation - Amounts																																					
	CMP30302: SW																																				
	CMP30304: SW 2024-2026 Cap Adds																																				
	CMP39101:Computer Equipment																																				
Taxes																																					
Property Tax Rate								1.551%												1.591%											1.632%						
Property Tax Amount ($)																																					
Business and Other Taxes																																					
Payroll (Percent of Labor)																																					
State Tax Rate																																					
Federal Tax Rate			21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																					
Composite Federal & State																																					
Federal Tax Depreciation - Factors																																					
	CMP30302: SW																																				
	CMP30304: SW 2024-2026 Cap Adds																																				
	CMP39101:Computer Equipment																																				
	CMP30304: SW 2027-2030 Cap Adds																																				
Federal Tax Depreciation - Amounts																																					
	CMP30302: SW																																				
	CMP30304: SW 2024-2026 Cap Adds																																				

Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30
State Tax Depreciation - Factors																																			
CMP30302: SW																																			
CMP30304: SW 2024-2026 Cap Adds																																			
CMP39101:Computer Equipment																																			
CMP30304: SW 2027-2030 Cap Adds																																			
Software Expense Adjustment																																			
Deferred Investment Tax Credit																																			
Removal Costs	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair Allowance																																			
Federal																																			
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																																			
Federal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69,017,388	-	-	-	-	-	-	-	-	-	-	-	42,959,675	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69,017,388	-	-	-	-	-	-	-	-	-	-	-	42,959,675	-	-	-	-	-	-
Factors																																			
Pension & Benefit																																			
F&U Revenue Factores																																			
Uncollectibles (Avg. Rate)																																			
Franchise																																			
Tot aF&U expense factor																																			
Revenue	-	-	-	-	-	-	-	-	-	-	-																								
Capital Structure (%)																																			
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																			
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																																			
Monthly Rate	02-28	03-28	04-28	05-28	06-28	07-28	08-28	09-28	10-28	11-28	12-28	01-29	02-29	03-29	04-29	05-29	06-29	07-29	08-29	09-29	10-29	11-29	12-29	01-30	02-30	03-30	04-30	05-30	06-30	07-30	08-30	09-30	10-30	11-30	12-30
2 CMP30302: SW	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%
3 CMP30304: SW 2024-2026 Cap Adds	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
Federal Tax Depreciation Rates																																			
CMP30302: SW																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
CMP30304: SW 2024-2026 Cap Adds																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															

Revenue Requirements Estimation Model
ERP TRANSFORMATION
Model Inputs ($)

	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30
CMP39101:Computer Equipment																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
CMP30304: SW 2027-2030 Cap Adds																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
State Tax Depreciation Rates																																			
CMP30302: SW																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
CMP30304: SW 2024-2026 Cap Adds																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
CMP39101:Computer Equipment																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															
CMP30304: SW 2027-2030 Cap Adds																																			
Life																																			
Method																																			
Factor																																			
Basis Adjustment																																			
Year	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70															
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															

Workpaper 4-6
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

Analysis of Monthly Data - Initial Investment

		Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Analysis Period			**Jan-24 Through**	**Dec-43**																
Analysis Life			20 Years																	
Sensitivity			0.01																	
Jurisdiction			CPUC																	
Fixed Costs			1.000000																	
Variable Costs			1.000000																	
Plant Investment (Nominal)																				
Gross Plant Additions		**661,524,812**	**Input ====>**																	
Common	CMP30302: SW	45,762,015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2024-2026 Cap Adds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP39701:Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds	615,762,797																		
Removal Costs																				
COR ED	CMP30302: SW	-																		
	CMP30304: SW 2024-2026 Cap Adds	-																		
	CMP39701:Computer Equipment	-																		
Expense Estimates (Nominal)			**Input ====>**																	
Expense		-																		
Production																				
	Labor	-																		
	Materials & Services	-																		
	Other	-																		

Book Capitalization

Depreciation - Factors	Life	Salvage	Inpute Rate 1/1/2024	Inpute Rate 1/1/2027	Inpute Rate			Sunk Investment (End of Base Year) Avg. Age	Initial Plant	Initial Reserve	Eligible for Property Tax
CMP30302: SW		0%	17.19%	20.57%	0.00%	0.00%	0.00%				
CMP30304: SW 2024-2026 Cap Adds		0%	10.05%	8.12%	0.00%	0.00%	0.00%				
CMP39701:Computer Equipment		0%	14.04%	14.52%	0.00%	0.00%	0.00%				x
CMP30304: SW 2027-2030 Cap Adds		0%	10.05%	8.12%	0.00%	0.00%	0.00%				

Depreciation - Amounts			**Input ====>**																	
	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			
	CMP39701:Computer Equipment																			

Taxes		**Rate**	**Input ====>**																	
Property Tax Rate		1.188470%																		
Property Tax Amount ($)																				
Business and Other Taxes		0.00%																		
Payroll (Percent of Labor)		0.00%																		
State Tax Rate		8.84%																		
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)		Prior																		
Composite Federal & State		27.98%																		

Note: If use composite property tax rate, enter rate in cell E162, otherwise overwrite rate at each year in July column.

1.309%

Federal Tax Depreciation - Factors	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Straight Line Basis	Normalization	Tax Repair %	Software FL %
CMP30302: SW	3	SL	1.0	1.00000		100.00%	Normalized	0.00%	0.00%
CMP30304: SW 2024-2026 Cap Adds	3	SL	1.0	1.00000		100.00%	Normalized	0.00%	0.00%
CMP39701:Computer Equipment	10	MACRS	2.0	1.00000		100.00%	Normalized	0.00%	0.00%
CMP30304: SW 2027-2030 Cap Adds	3	SL	1.0	0.85872		85.87%	Normalized	0.00%	14.13%

Federal Tax Depreciation - Amounts		Incentive %	**Input ====>**
	CMP30302: SW	0%	
	CMP30304: SW 2024-2026 Cap Adds	0%	

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

Analysis of Monthly Data - Initial Investment

	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
State Tax Depreciation - Factors	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Normalization													
CMP30302: SW	3	SL	1.0	1.00000		Flow-through													
CMP30304: SW 2024-2026 Cap Adds	3	SL	1.0	1.00000		Flow-through													
CMP39701:Computer Equipment	18	ADR_SYD	2.0	1.00000		Flow-through													
CMP30304: SW 2027-2030 Cap Adds	3	SL	1.0	0.85872		Flow-through													
		Input ====>																	
Software Expense Adjustment	-																		
Deferred Investment Tax Credit																			
Removal Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repair Allowance																			
Federal	-	-																	
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																			
Federal	86,994,252																		
State	86,994,252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Factors

	Rate
Pension & Benefit	0.000%
F&U Revenue Factores	**Input ====>**
Uncollectibles (Avg. Rate)	Electric
Franchise	Electric
Tot aF&U expense factor	Electric

Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Capital Structure (%)

Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost of Capital (%)

Debt	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.66%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%
Equity	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%	10.28%	10.28%	10.28%	10.28%	10.28%	10.28%	10.28%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.66%	7.66%	7.66%	7.66%	7.66%	7.66%	7.66%

Book Depreciation Rates

	Monthly Rate	-	01-24	02-24	03-24	04-24	05-24	06-24	07-24	08-24	09-24	10-24	11-24	12-24	01-25	02-25	03-25	04-25	05-25	06-25
2	CMP30302: SW	0.00%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%
3	CMP30304: SW 2024-2026 Cap Adds	0.00%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%

Federal Tax Depreciation Rates

CMP30302: SW

Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

CMP30304: SW 2024-2026 Cap Adds

Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

Analysis of Monthly Data - Initial Investment

	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
CMP39701:Computer Equipment																			
Life	10																		
Method	MACRS																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-
Annual Depreciation	10.000	18.000	14.400	11.520	9.216	7.373	6.554	6.554	6.554	6.554	3.277	-	-	-	-	-	-	-	-
Reserve	10.000	28.000	42.400	53.920	63.136	70.509	77.062	83.616	90.170	96.723	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.10000	0.18000	0.14400	0.11520	0.09216	0.07373	0.06554	0.06554	0.06554	0.06554	0.03277	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.10000	0.18000	0.14400	0.11520	0.09216	0.07373	0.06554	0.06554	0.06554	0.06554	0.03277	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	0.8587																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																			
CMP30302: SW																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP39701:Computer Equipment																			
Life	18																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
Annual Depreciation	5.556	10.494	9.586	9.005	8.424	7.843	7.262	6.681	6.100	5.519	4.938	4.357	3.776	3.195	2.614	2.033	1.452	0.871	0.290
Reserve	5.556	16.049	25.635	34.641	43.065	50.908	58.170	64.851	70.951	76.471	81.409	85.766	89.542	92.738	95.352	97.386	98.838	99.710	100.000
Rate	0.05556	0.10494	0.09586	0.09005	0.08424	0.07843	0.07262	0.06681	0.06100	0.05519	0.04938	0.04357	0.03776	0.03195	0.02614	0.02033	0.01452	0.00871	0.00290
CMP30304: SW 2027-2030 Cap Adds																			
Life	3																		
Method	SL																		
Factor	1.0																		
Basis Adjustment	0.8587																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-6
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

		Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27
Analysis Period																									
Analysis Life																									
Sensitivity																									
Jurisdiction																									
	Fixed Costs																								
	Variable Costs																								
Plant Investment (Nominal)																									
Gross Plant Additions																									
Common	CMP30302: SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2024-2026 Cap Adds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP39701:Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds																			-	-	-	-	-	-
Removal Costs																									
COR ED	CMP30302: SW																								
	CMP30304: SW 2024-2026 Cap Adds																								
	CMP39701:Computer Equipment																								
Expense Estimates (Nominal)																									
Expense																									
Production																									
	Labor																								
	Materials & Services																								
	Other																								
Book Capitalization																									
Depreciation - Factors																									
	CMP30302: SW																								
	CMP30304: SW 2024-2026 Cap Adds																								
	CMP39701:Computer Equipment																								
	CMP30304: SW 2027-2030 Cap Adds																								
Depreciation - Amounts																									
	CMP30302: SW																								
	CMP30304: SW 2024-2026 Cap Adds																								
	CMP39701:Computer Equipment																								
Taxes																									
Property Tax Rate		1.429%												1.474%											
Property Tax Amount ($)																									
Business and Other Taxes																									
Payroll (Percent of Labor)																									
State Tax Rate																									
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																									
Composite Federal & State																									
Federal Tax Depreciation - Factors																									
	CMP30302: SW																								
	CMP30304: SW 2024-2026 Cap Adds																								
	CMP39701:Computer Equipment																								
	CMP30304: SW 2027-2030 Cap Adds																								
Federal Tax Depreciation - Amounts																									
	CMP30302: SW																								
	CMP30304: SW 2024-2026 Cap Adds																								

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27
State Tax Depreciation - Factors																								
CMP30302: SW																								
CMP30304: SW 2024-2026 Cap Adds																								
CMP39701:Computer Equipment																								
CMP30304: SW 2027-2030 Cap Adds																								
Software Expense Adjustment																								
Deferred Investment Tax Credit																								
Removal Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repair Allowance																								
Federal																								
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																								
Federal																			-	-	-	-	-	-
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Factors																								
Pension & Benefit																								
F&U Revenue Factores																								
Uncollectibles (Avg. Rate)																								
Franchise																								
Tot aF&U expense factor																								
Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Structure (%)																								
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																								
Debt	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	10.28%	10.28%	10.28%	10.28%	10.28%	10.28%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.66%	7.66%	7.66%	7.66%	7.66%	7.66%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																								
Monthly Rate	07-25	08-25	09-25	10-25	11-25	12-25	01-26	02-26	03-26	04-26	05-26	06-26	07-26	08-26	09-26	10-26	11-26	12-26	01-27	02-27	03-27	04-27	05-27	06-27
2 CMP30302: SW	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%
3 CMP30304: SW 2024-2026 Cap Adds	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
Federal Tax Depreciation Rates																								
CMP30302: SW																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27
CMP39701:Computer Equipment																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																								
CMP30302: SW																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP39701:Computer Equipment																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-6
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

			Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
Analysis Period																										
Analysis Life																										
Sensitivity																										
Jurisdiction																										
	Fixed Costs																									
	Variable Costs																									
Plant Investment (Nominal)																										
Gross Plant Additions																										
Common	CMP30302: SW		-	-	-	6,025,397	-	-	-	-	-	12,377,893	-	-	-	-	-	-	-	-	-	-	-	27,358,725	-	-
Common	CMP30304: SW 2024-2026 Cap Adds																									
Common	CMP39701:Computer Equipment		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds		-	-	-	87,428,331	-	-	-	-	-	#########	-	-	-	-	-	-	-	-	-	-	-	#########	-	-
Removal Costs																										
COR ED	CMP30302: SW																									
	CMP30304: SW 2024-2026 Cap Adds																									
	CMP39701:Computer Equipment																									
Expense Estimates (Nominal)																										
Expense																										
Production																										
	Labor																									
	Materials & Services																									
	Other																									
Book Capitalization																										
Depreciation - Factors																										
	CMP30302: SW																									
	CMP30304: SW 2024-2026 Cap Adds																									
	CMP39701:Computer Equipment																									
	CMP30304: SW 2027-2030 Cap Adds																									
Depreciation - Amounts																										
	CMP30302: SW																									
	CMP30304: SW 2024-2026 Cap Adds																									
	CMP39701:Computer Equipment																									
Taxes																										
Property Tax Rate			1.512%												1.551%											
Property Tax Amount ($)																										
Business and Other Taxes																										
Payroll (Percent of Labor)																										
State Tax Rate																										
Federal Tax Rate			21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																										
Composite Federal & State																										
Federal Tax Depreciation - Factors																										
	CMP30302: SW																									
	CMP30304: SW 2024-2026 Cap Adds																									
	CMP39701:Computer Equipment																									
	CMP30304: SW 2027-2030 Cap Adds																									
Federal Tax Depreciation - Amounts																										
	CMP30302: SW																									
	CMP30304: SW 2024-2026 Cap Adds																									

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
State Tax Depreciation - Factors																								
CMP30302: SW																								
CMP30304: SW 2024-2026 Cap Adds																								
CMP39701:Computer Equipment																								
CMP30304: SW 2027-2030 Cap Adds																								
Software Expense Adjustment																								
Deferred Investment Tax Credit																								
Removal Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0
Repair Allowance																								
Federal																								
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																								
Federal	-	-	-	12,351,773	-	-	-	-	-	20,622,003	-	-	-	-	-	-	-	-	-	-	-	54,020,475	-	-
State	-	-	-	12,351,773	-	-	-	-	-	20,622,003	-	-	-	-	-	-	-	-	-	-	-	54,020,475	-	-
Factors																								
Pension & Benefit																								
F&U Revenue Factores																								
Uncollectibles (Avg. Rate)																								
Franchise																								
Tot aF&U expense factor																								
Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Capital Structure (%)																								
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																								
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																								
Monthly Rate	07-27	08-27	09-27	10-27	11-27	12-27	01-28	02-28	03-28	04-28	05-28	06-28	07-28	08-28	09-28	10-28	11-28	12-28	01-29	02-29	03-29	04-29	05-29	06-29
2 CMP30302: SW	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%
3 CMP30304: SW 2024-2026 Cap Adds	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
Federal Tax Depreciation Rates																								
CMP30302: SW																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
CMP39701:Computer Equipment																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																								
CMP30302: SW																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2024-2026 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP39701:Computer Equipment																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CMP30304: SW 2027-2030 Cap Adds																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-6
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

			Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30
Analysis Period																				
Analysis Life																				
Sensitivity																				
Jurisdiction																				
Fixed Costs																				
Variable Costs																				
Plant Investment (Nominal)																				
Gross Plant Additions																				
Common	CMP30302: SW		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2024-2026 Cap Adds		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP39701:Computer Equipment		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common	CMP30304: SW 2027-2030 Cap Adds		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Removal Costs																				
COR ED	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			
	CMP39701:Computer Equipment																			
Expense Estimates (Nominal)																				
Expense																				
Production																				
	Labor																			
	Materials & Services																			
	Other																			
Book Capitalization																				
Depreciation - Factors																				
	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			
	CMP39701:Computer Equipment																			
	CMP30304: SW 2027-2030 Cap Adds																			
Depreciation - Amounts																				
	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			
	CMP39701:Computer Equipment																			
Taxes																				
Property Tax Rate			1.591%												1.632%					
Property Tax Amount ($)																				
Business and Other Taxes																				
Payroll (Percent of Labor)																				
State Tax Rate																				
Federal Tax Rate			21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																				
Composite Federal & State																				
Federal Tax Depreciation - Factors																				
	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			
	CMP39701:Computer Equipment																			
	CMP30304: SW 2027-2030 Cap Adds																			
Federal Tax Depreciation - Amounts																				
	CMP30302: SW																			
	CMP30304: SW 2024-2026 Cap Adds																			

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30
State Tax Depreciation - Factors																		
CMP30302: SW																		
CMP30304: SW 2024-2026 Cap Adds																		
CMP39701:Computer Equipment																		
CMP30304: SW 2027-2030 Cap Adds																		
Software Expense Adjustment																		
Deferred Investment Tax Credit																		
Removal Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair Allowance																		
Federal																		
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																		
Federal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Factors																		
Pension & Benefit																		
F&U Revenue Factores																		
Uncollectibles (Avg. Rate)																		
Franchise																		
Tot aF&U expense factor																		
Revenue																		
Capital Structure (%)																		
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																		
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																		
Monthly Rate	07-29	08-29	09-29	10-29	11-29	12-29	01-30	02-30	03-30	04-30	05-30	06-30	07-30	08-30	09-30	10-30	11-30	12-30
2 CMP30302: SW	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%
3 CMP30304: SW 2024-2026 Cap Adds	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
Federal Tax Depreciation Rates																		
CMP30302: SW																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000															
CMP30304: SW 2024-2026 Cap Adds																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000															

Revenue Requirements Estimation Model
GIS TRANSFORMATION
Model Inputs ($)

	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30
CMP39701:Computer Equipment																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000															
CMP30304: SW 2027-2030 Cap Adds																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
Incentive	0.00000	0.00000	0.00000															
State Tax Depreciation Rates																		
CMP30302: SW																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
CMP30304: SW 2024-2026 Cap Adds																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
CMP39701:Computer Equipment																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															
CMP30304: SW 2027-2030 Cap Adds																		
Life																		
Method																		
Factor																		
Basis Adjustment																		
Year	68	69	70															
Remaining Life	-	-	-															
Annual Depreciation	-	-	-															
Reserve	100.000	100.000	100.000															
Rate	0.00000	0.00000	0.00000															

Workpaper 4-7
Pacific Gas and Electric Company
ERP Transformation
Workpapers Supporting Chapter 4, Revenue Requirement
Revenue Requirements Estimation ERP Model By Total Company
Results of Operations Calculations

Ln.No.		2026	2027	2028	2029	2030
1	**Operating Revenue:**	1,479,628	46,319,751	114,140,804	147,949,673	264,530,300
	Operating Expenses:					
2	Expense	-	-	-	-	-
3	Production	-	-	-	-	-
4	Storage	-	-	-	-	-
5	Transmission	-	-	-	-	-
6	Distribution	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-
8	Customer Services	-	-	-	-	-
9	Administrative and General	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-
11	Franchise Requirements	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-
	Taxes:					
13	Property	26,561	229,501	277,436	242,641	178,987
14	Payroll	0	-	-	-	-
15	Other Taxes	0	-	-	-	-
16	State Corporation Franchise	(12,970)	(11,714,461)	(9,890,442)	(23,978,938)	(21,130,431)
17	Federal Income	52,601	(12,864,983)	10,002,823	(7,407,499)	11,571,919
18	Subtotal Taxes	66,191	(24,349,943)	389,817	(31,143,796)	(9,379,526)
19	**Depreciation**	1,140,076	42,384,760	68,548,463	110,327,307	170,143,848
20	**Total Operating Expenses**	1,206,267	18,034,817	68,938,280	79,183,511	160,764,322
21	**Net for Return**	273,360	28,284,935	45,202,524	68,766,162	103,765,977
22	**Weighted Average Rate Base**	25,522,469	371,681,137	593,988,493	903,628,932	1,363,547,665
23	**Rate of Return:** On Rate Base	1.07%	7.61%	7.61%	7.61%	7.61%
24	On Equity	1.40%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see WP 4-3 and 4-4)					
	Fixed Costs					
25	CPUC	-	-	-	-	-
26	FERC	-	-	-	-	-
27	Total	-	-	-	-	-
	Variable Costs					
28	CPUC	-	-	-	-	-
29	FERC	-	-	-	-	-
30	Total	-	-	-	-	-
31	Capital Revenue Requirement	1,479,628	46,319,751	114,140,804	147,949,673	264,530,300
32	**Total Company Capital Revenue Requirement**	1,479,628	46,319,751	114,140,804	147,949,673	264,530,300
33	**Total Compnay Expense Revenue Requirement**	0	3,553,392	10,172,588	19,351,824	30,676,928
34	**Total CPUC Revenue Requirement**	1,314,846	44,843,215	111,775,834	150,428,397	265,434,266

Pacific Gas and Electric Company
ERP Transformation
Workpapers Supporting Chapter 4, Revenue Requirement
Revenue Requirements Estimation ERP Model By Total Company
Results of Operations Calculations

Ln.No.		2026	2027	2028	2029	2030
	Taxable Income:					
1	Operating Revenue	1,479,628	46,319,751	114,140,804	147,949,673	264,530,300
2	Less: O&M Expenses	-	-	-	-	-
4	Taxes Other Than Income	26,561	229,501	277,436	242,641	178,987
5	Interest Charges	85,852	8,883,179	14,196,325	21,596,731	32,588,789
6	Fiscal/Calendar Adjustment	26,561	60,384	(19,935)	(21,511)	(47,854)
7	Operating Expense Adjustment	0	-	-	-	-
8	Capitalized Interest Adjustment	0	-	-	-	-
9	Capitalized Inventory Adjustment	0	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-
11	Subtotal Deductions	138,973	9,173,064	14,453,826	21,817,861	32,719,922
12	Taxable Income before Depreciation	1,340,654	37,146,687	99,686,978	126,131,811	231,810,378
	California Corporation Franchise Tax (CCFT)					
13	State Depreciation	1,487,375	110,802,218	211,569,801	328,369,376	427,882,731
14	Removal Costs	0	-	-	-	-
15	Repair Allowance	0	-	-	-	-
16	Software Deduction	-	58,860,998	-	69,017,388	42,959,675
17	State Taxable Income	(146,721)	(132,516,529)	(111,882,823)	(271,254,953)	(239,032,029)
18	CCFT	(12,970)	(11,714,461)	(9,890,442)	(23,978,938)	(21,130,431)
19	Deferred Taxes - Depreciation	0	-	-	-	-
20	Deferred Taxes - Interest					
21	Deferred Taxes - Vacation					
22	Deferred Taxes- Other					
23	Total CCFT	(12,970)	(11,714,461)	(9,890,442)	(23,978,938)	(21,130,431)
	Federal Income Tax					
24	Prior Year CCFT	(49,901)	(49,198)	(11,714,461)	(9,890,442)	(23,978,938)
25	Federal Depreciation	1,653,525	110,818,885	210,843,540	328,410,332	427,422,226
26	Removal Costs	0	-	-	-	-
27	Repair Allowance	0	-	-	-	-
28	Software Deduction	0	58,860,998	-	69,017,388	42,959,675
29	Capitalized Software adjustment - Federal	15,853	98,400	98,400	98,400	62,232
30	Preferred Dividend Credit	-	-	-	-	-
31	Federal Taxable Income	(278,823)	(132,582,398)	(99,540,502)	(261,503,867)	(214,654,818)
32	Federal Income Tax	(58,553)	(27,842,304)	(20,903,505)	(54,915,812)	(45,077,512)
33	Deferred Taxes - Depreciation	111,153	14,977,321	30,906,328	47,508,313	56,649,430
34	Deferred Taxes - Interest	0	-	-	-	-
35	Deferred Taxes - Vacation	0	-	-	-	-
36	Deferred Taxes - Other	0	-	-	-	-
37	Total Federal Income Tax	52,601	(12,864,983)	10,002,823	(7,407,499)	11,571,919

Pacific Gas and Electric Company
ERP Transformation
Workpapers Supporting Chapter 4, Revenue Requirement
Revenue Requirements Estimation ERP Model By Total Company
Results of Operations Calculations

Ln.No.		2026	2027	2028	2029	2030
	Weighted Cost of Capital					
1	Debt	0.34%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.00%	0.03%	0.03%	0.03%	0.03%
3	Common Equity	0.73%	5.19%	5.19%	5.19%	5.19%
4	Total %	1.07%	7.61%	7.61%	7.61%	7.61%
5	Debt	85,852	8,883,179	14,196,325	21,596,731	32,588,789
6	Preferred Stock	1,078	111,504	178,197	271,089	409,064
7	Common Equity	186,431	19,290,251	30,828,003	46,898,342	70,768,124
8	Total $	273,360	28,284,935	45,202,524	68,766,162	103,765,977
	Weighted Average Rate Base					
9	Plant	32,329,279	400,367,771	711,767,732	1,137,802,420	1,793,624,839
	Working Capital					
10	Fuel	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-
12	Working Cash	-	-	-	-	-
13	Subtotal	-	-	-	-	-
14	Total Plant	32,329,279	400,367,771	711,767,732	1,137,802,420	1,793,624,839
	Less:					
15	Accumulated Deferred Taxes	1,191,347	5,971,900	31,966,814	67,627,104	120,809,903
16	Deferred Investment Tax Credit	-	-	-	-	-
17	Customer Advances	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-
21	Subtotal	1,191,347	5,971,900	31,966,814	67,627,104	120,809,903
22	Accumulated Depreciation	5,615,463	22,714,734	85,812,425	166,546,384	309,267,272
23	Weighted Average Rate Base	25,522,469	371,681,137	593,988,493	903,628,932	1,363,547,665

Workpaper 4-8
Pacific Gas and Electric Company
GIS Transformation
Workpapers Supporting Chapter 4, Revenue Requirement
Revenue Requirements Estimation GIS Model by Total Company
Results of Operations Calculations

Ln.No.		2027	2028	2029	2030
1	**Operating Revenue:**	(2,676,005)	26,574,066	67,332,085	101,083,846
	Operating Expenses:				
2	Expense	-	-	-	-
3	Production	-	-	-	-
4	Storage	-	-	-	-
5	Transmission	-	-	-	-
6	Distribution	-	-	-	-
7	Customer Accounts	-	-	-	-
8	Customer Services	-	-	-	-
9	Administrative and General	-	-	-	-
10	Uncollectibles	-	-	-	-
11	Franchise Requirements	-	-	-	-
12	Subtotal Expenses	-	-	-	-
	Taxes:				
13	Property	-	-	-	-
14	Payroll	-	-	-	-
15	Other Taxes	-	-	-	-
16	State Corporation Franchise	(2,563,294)	(4,293,615)	(11,529,090)	(7,895,908)
17	Federal Income	(3,635,825)	(2,708,579)	(8,017,168)	10,049,089
18	Subtotal Taxes	(6,199,119)	(7,002,194)	(19,546,259)	2,153,182
19	**Depreciation**	2,084,651	19,137,575	50,244,197	59,413,186
20	**Total Operating Expenses**	(4,114,468)	12,135,381	30,697,939	61,566,367
21	**Net for Return**	1,438,462	14,438,684	36,634,146	39,517,479
22	**Weighted Average Rate Base**	18,902,265	189,733,040	481,394,825	519,283,557
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%
24	On Equity	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see WP 4-5 and 4-6)				
	Fixed Costs				
25	CPUC	-	-	-	-
26	FERC	-	-	-	-
27	Total	-	-	-	-
	Variable Costs				
28	CPUC	-	-	-	-
29	FERC	-	-	-	-
30	Total	-	-	-	-
31	Capital Revenue Requirement	(2,676,005)	26,574,066	67,332,085	101,083,846
32	**Total Company Capital Revenue Requirement**	(2,676,005)	26,574,066	67,332,085	101,083,846
33	**Total Compnay Expense Revenue Requirement**	8,402,884	36,872,134	49,744,168	46,646,221
34	**Total CPUC Revenue Requirement**	5,149,297	57,047,368	105,268,592	132,830,833

Pacific Gas and Electric Company
GIS Transformation
Workpapers Supporting Chapter 4, Revenue Requirement
Revenue Requirements Estimation GIS Model by Total Company
Results of Operations Calculations

Ln.No.		2027	2028	2029	2030
	Taxable Income:				
1	Operating Revenue	(2,676,005)	26,574,066	67,332,085	101,083,846
2	Less: O&M Expenses	-	-	-	-
4	Taxes Other Than Income	-	-	-	-
5	Interest Charges	451,764	4,534,620	11,505,336	12,410,877
6	Fiscal/Calendar Adjustment	-	-	-	-
7	Operating Expense Adjustment	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-
11	Subtotal Deductions	451,764	4,534,620	11,505,336	12,410,877
12	Taxable Income before Depreciation	(3,127,769)	22,039,446	55,826,749	88,672,969
	California Corporation Franchise Tax (CCFT)				
13	State Depreciation	13,516,993	49,987,748	132,225,848	177,993,194
14	Removal Costs	-	-	-	-
15	Repair Allowance	-	-	-	-
16	Software Deduction	12,351,773	20,622,003	54,020,475	-
17	State Taxable Income	(28,996,535)	(48,570,305)	(130,419,575)	(89,320,225)
18	CCFT	(2,563,294)	(4,293,615)	(11,529,090)	(7,895,908)
19	Deferred Taxes - Depreciation	-	-	-	-
20	Deferred Taxes - Interest				
21	Deferred Taxes - Vacation				
22	Deferred Taxes- Other				
23	Total CCFT	(2,563,294)	(4,293,615)	(11,529,090)	(7,895,908)
	Federal Income Tax				
24	Prior Year CCFT	0	(2,563,294)	(4,293,615)	(11,529,090)
25	Federal Depreciation	13,516,993	49,987,748	132,225,848	177,993,194
26	Removal Costs	-	-	-	-
27	Repair Allowance	-	-	-	-
28	Software Deduction	12,351,773	20,622,003	54,020,475	-
29	Capitalized Software adjustment - Federal	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-
31	Federal Taxable Income	(28,996,535)	(46,007,011)	(126,125,960)	(77,791,135)
32	Federal Income Tax	(6,089,272)	(9,661,472)	(26,486,452)	(16,336,138)
33	Deferred Taxes - Depreciation	2,453,447	6,952,893	18,469,283	26,385,228
34	Deferred Taxes - Interest	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-
37	Total Federal Income Tax	(3,635,825)	(2,708,579)	(8,017,168)	10,049,089

Pacific Gas and Electric Company
GIS Transformation
Workpapers Supporting Chapter 4, Revenue Requirement
Revenue Requirements Estimation GIS Model by Total Company
Results of Operations Calculations

Ln.No.		2027	2028	2029	2030
	Weighted Cost of Capital				
1	Debt	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%
3	Common Equity	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%
5	Debt	451,764	4,534,620	11,505,336	12,410,877
6	Preferred Stock	5,671	56,920	144,418	155,785
7	Common Equity	981,028	9,847,145	24,984,392	26,950,817
8	Total $	1,438,462	14,438,684	36,634,146	39,517,479
	Weighted Average Rate Base				
9	Plant	19,469,527	205,614,471	542,021,248	661,524,812
	Working Capital				
10	Fuel	-	-	-	-
11	Materials and Supplies	-	-	-	-
12	Working Cash	-	-	-	-
13	Subtotal	-	-	-	-
14	Total Plant	19,469,527	205,614,471	542,021,248	661,524,812
	Less:				
15	Accumulated Deferred Taxes	306,681	5,577,864	17,720,468	41,068,238
16	Deferred Investment Tax Credit	-	-	-	-
17	Customer Advances	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-
20	Capitalized Interest	-	-	-	-
21	Subtotal	306,681	5,577,864	17,720,468	41,068,238
22	Accumulated Depreciation	260,581	10,303,567	42,905,954	101,173,016
23	Weighted Average Rate Base	18,902,265	189,733,040	481,394,825	519,283,557
		-	-	-	-

WORKPAPER 4-9
PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
BENEFITS REVENUE REQUIREMENT FORECAST

In $ whole dollars

Line **BENEFITS CAPITAL REVENUE REQUIREMENT (TOTAL COMPANY)**

	M1_Common and General Plant	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
1	*Total*	0	0	0	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637

	M2_Intangible Plant	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
2	*Total*	0	0	(0)	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583

	M3_Electric Distribution, Gas and Gen Functional Pl	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
3	*Total*	(0)	(0)	(0)	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707

	M4_FERC ETP Functional Plant	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
4	*Total*	(0)	(0)	(0)	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206

	Total Benefit RRQ	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
5	*Total*	(0)	(0)	(0)	(23,901,171)	39,125,164	153,031,162	275,666,023	408,786,725	491,118,784	551,742,895	609,547,648	665,501,759	750,105,930	720,180,377	693,770,134

	Jurisdiction	2028
6	CPUC	89.9%
7	FERC - Electric Transmission (excluded)	10.1%
8	Total	100%

BENEFITS CAPITAL REVENUE REQUIREMENT (CPUC JURISDICTION)

	M1_Common and General Plant	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
9	*Total*	0	0	0	3,503,662	10,968,425	19,339,202	27,959,338	34,123,593	35,577,640	34,861,332	34,028,866	32,244,326	28,631,839	24,414,122	20,312,271

	M2_Intangible Plant	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
10	*Total*	0	0	(0)	(951,233)	2,127,284	6,563,511	11,050,189	16,053,938	19,050,620	18,872,713	17,675,515	16,267,606	15,289,172	11,796,165	9,246,438

	M3_Electric Distribution, Gas and Gen Functional Pl	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
11	*Total*	(0)	(0)	(0)	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707

	M4_FERC ETP Functional Plant	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
12	*Total*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Total Capital Revenue Requirment (CPUC Only)	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
13	*Total*	(0)	(0)	(0)	(20,644,644)	30,242,976	122,322,287	221,335,561	328,932,080	395,145,788	443,378,414	489,284,697	533,617,933	602,831,203	578,044,157	556,358,416

		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
14	**BENEFITS EXPENSE REVENUE REQUIREMENT (CPUC JURISDICTION)**				235,485,703	356,404,234	389,021,720	398,471,869	285,249,835	249,188,952	254,714,396	262,818,404	254,554,467	0	0	0
15	**TOTAL BENEFITS REVENUE REQUIREMENT (CPUC JURISDICTION) Ln 13 + Ln 14**				214,841,059	386,647,210	511,344,007	619,807,429	614,181,915	644,334,740	698,092,810	752,103,101	788,172,400	602,831,203	578,044,157	556,358,416

WORKPAPER 4-10
PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
CAPITAL FUNCTIONAL GROUP DESCRIPTIONS

Ln	Functional Group	Functional Group Description
1	CAU	Common-Autos
2	CCE	Common-Communication Equipment
3	CDH	Common-Data Handling
4	CII	Common Intangible - Customer Information System
5	CIP	Common Intangible
6	CIS	Common-Customer Information System
7	COE	Common-Office Equipment
8	COT	Common-Other
9	CST	Common-Structures
10	EDP	Electric Distribution
11	EDPL	Electric Distribution Land
12	EGP	Electric General
13	EHP	Electric Production-Hydroelectric
14	EIP	Electric Production-Relicensing
15	EOPE	Electric Production-Elkhorn
16	EPV	Electric Production- Solar
17	ESFG	Electric Production-Fossil (Post 2008)
18	ETP	Electric Transmission Plant FERC
19	ETPL	Electric Transmission Plant FERC - Land
20	GDP	Gas Distribution
21	GGP	Gas General
22	GTE	Gas Transmission - Line 401
23	GTP	Gas Transmission
24	GTPL	Gas Transmission-Land
25	GTS	Gas Transmission - Stanpac
26	GUS	Gas Underground Storage

PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
CAPITAL BENEFITS FORECAST - INPUTS TO REVENUE REQUIREMENT MODELS
in $ whole dollars

Capital Functional Group	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
COT	853,591	1,313,738	1,386,938	1,387,751	944,312	803,103	819,326	835,876	839,601	9,184,236
CDH	1,111,712	1,721,643	1,817,224	1,857,599	895,020	573,061	584,636	596,446	572,446	9,729,787
CST	11,755,863	17,962,654	18,578,156	18,950,256	6,050,324	1,656,172	1,689,627	1,723,757	1,338,797	79,705,604
COE	-	-	-	-	-	-	-	-	-	-
CCE	115,645	194,314	216,508	222,301	132,720	103,418	105,507	107,639	106,332	1,304,385
CAU	3,770,937	5,760,969	5,958,557	6,077,895	1,943,539	535,298	546,111	557,142	432,650	25,583,097
CIS	14,414,264	16,402,365	16,784,852	17,121,865	21,426,990	12,524,086	12,777,073	13,035,170	11,417,683	135,904,347
GGP	1,869,490	3,205,214	3,628,477	3,730,275	2,836,865	2,564,852	2,616,663	2,669,519	2,666,214	25,787,568
EGP	674,030	1,100,205	1,218,596	1,250,565	932,094	834,073	850,921	868,110	822,156	8,550,750
CIP	10,536,108	14,482,517	15,101,893	15,424,478	11,129,539	6,402,592	6,531,924	6,663,869	6,037,851	92,310,770
CII	3,348,297	5,533,327	6,139,687	6,301,982	3,856,296	3,059,420	3,121,220	3,184,269	3,120,923	37,665,421
EIP	714,705	737,692	617,740	428,233	436,840	445,664	454,667	463,851	472,328	4,771,720
EDP	240,096,901	389,813,972	419,613,578	429,626,582	307,769,294	269,609,988	275,056,110	280,612,243	282,694,851	2,894,893,517
GDP	59,486,988	97,675,262	106,593,726	109,266,365	79,799,093	70,643,325	72,070,321	73,526,141	74,162,756	743,223,977
EDPL	226,768	360,323	382,527	391,152	226,585	172,524	176,009	179,565	178,298	2,293,751
GTP	31,914,923	52,414,997	57,225,214	58,662,199	42,740,714	37,788,734	38,552,067	39,330,819	39,665,814	398,295,482
GTE	1,374,099	2,256,731	2,463,835	2,525,705	1,840,204	1,626,996	1,659,862	1,693,391	1,707,814	17,148,637
GUS	7,303,238	11,994,363	13,095,107	13,423,939	9,780,553	8,647,369	8,822,046	9,000,251	9,076,909	91,143,776
GTPL	7,972	13,093	14,295	14,654	10,677	9,440	9,630	9,825	9,909	99,494
GTS	13,898	22,825	24,920	25,545	18,612	16,456	16,788	17,127	17,273	173,444
EHP	32,798,060	33,852,946	28,348,316	19,651,756	20,046,756	20,451,700	20,864,825	21,286,294	21,675,290	218,975,943
EOPE	1,447,554	1,494,112	1,251,163	867,337	884,771	902,643	920,877	939,478	956,647	9,664,583
ESFG	1,167,527	1,205,078	1,009,127	699,552	713,613	728,028	742,734	757,738	771,585	7,794,983
EPV	128,198	132,322	110,805	76,813	78,357	79,940	81,555	83,202	84,723	855,914
ETP	93,419,394	152,079,054	164,081,463	168,029,151	120,198,383	105,212,204	107,337,491	109,505,708	110,378,129	1,130,240,978
ETPL	2,464	3,764	3,893	3,971	1,270	350	357	364	283	16,715
Total	**518,552,626**	**811,733,480**	**865,666,597**	**876,017,921**	**634,693,420**	**545,391,438**	**556,408,345**	**567,647,794**	**569,207,260**	**5,945,318,881**

WORKPAPER 4-12
PACIFIC GAS AND ELECTRIC COMPANY
ERP AND GIS TRANSFORMATION APPLICATION
EXPENSE BENEFITS FORECAST
in $ whole dollars

Expense Functional Group	2031	2032	2033	2034	2035	2036	2037	2038	2039	Total
Administrative & General	50,546,606	63,355,316	66,050,543	68,306,153	46,583,271	37,449,396	36,064,882	37,018,687	31,155,237	436,530,091
Customer Accounts	2,959,640	4,860,254	5,372,960	5,551,024	2,991,255	2,151,144	2,215,758	2,293,601	2,294,959	30,690,595
Customer Services	1,058,216	1,792,340	1,999,490	2,067,696	1,232,503	967,813	1,001,663	1,036,728	1,032,350	12,188,799
Electric Distribution	112,667,185	182,351,229	200,150,203	206,741,604	137,030,685	115,399,559	119,012,552	122,899,161	120,766,130	1,317,018,308
Electric Transmission	34,584,922	54,449,219	59,520,290	61,479,795	40,037,762	33,130,742	33,948,995	35,036,187	33,788,565	385,976,477
Fossil Generation	4,949,329	5,361,081	5,003,075	4,234,140	4,257,916	4,362,861	4,513,145	4,669,623	4,771,545	42,122,715
Gas Procurement	23,800	36,885	38,220	39,114	11,131	1,568	1,627	1,688	1,713	155,746
Gas Distribution	21,255,068	35,523,927	40,879,249	42,432,830	34,222,132	32,057,675	33,069,945	34,122,511	33,525,640	307,088,977
Gas Storage	896,101	1,546,548	1,794,155	1,864,261	1,531,952	1,448,161	1,494,902	1,543,230	1,535,977	13,655,287
Gas Transmission	28,827,651	48,491,353	55,881,937	58,035,570	47,101,994	44,189,725	45,525,794	46,982,835	46,368,065	421,404,924
Hydro Generation	16,270,337	17,672,863	16,597,803	14,122,829	14,336,048	14,736,235	15,242,910	15,768,312	16,036,113	140,783,450
Nuclear Generation	1,129,620	1,802,103	1,915,576	1,965,627	649,078	201,753	208,522	215,527	208,882	8,296,688
Total Company	**275,168,475**	**417,243,118**	**455,203,501**	**466,840,643**	**329,985,727**	**286,096,632**	**292,300,695**	**301,588,090**	**291,485,176**	**3,115,912,057**
Allocation Factors for AG:	89.9%									
CPUC REVENUE REQUIREMENT ESTIMATE	**235,485,703**	**356,404,234**	**389,021,720**	**398,471,869**	**285,249,835**	**249,188,952**	**254,714,396**	**262,818,404**	**254,554,467**	**2,685,909,579**

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and General Plant
Model Inputs ($)

		Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30
Analysis Period			**Jan-28 Through**	**Dec-88**																											
Analysis Life			61 Years																												
Sensitivity																															
Jurisdiction			CPUC																												
	Fixed Costs		1.000000																												
	Variable Costs		1.000000																												
Plant Investment (Nominal)																															
Gross Plant Additions			**295,749,776**	**Input ====>**																											
C	COT		9,184,236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CDH		9,729,787	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CST		79,705,604	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	COE		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CCE		1,304,385	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CAU		25,583,097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CIS		135,904,347	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	GGP		25,787,568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	EGP		8,550,750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage																															
	Labor		-																												
	Materials & Services		-																												
	Other		-																												
Transmission																															
	Labor		-																												
	Materials & Services		-																												
	Other		-																												
Distribution																															
	Labor		-																												
	Materials & Services		-																												
	Other		-																												
Customer Accounts																															
	Labor		-																												
	Materials & Services		-																												
	Other		-																												
Customer Services																															
	Labor		-																												
	Materials & Services		-																												
	Other		-																												
Administrative and General																															
	Labor		-																												
	Materials & Services		-																												
	Other		-																												
	Wage-Related		-																												
	Medical		-																												
	Benefits		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Book Capitalization

	Life	Salvage	Inpute Rate 1/1/2028	Inpute Rate	Inpute Rate	Sunk Investment (End of Base Year) Avg. Age	Initial Plant	Initial Reserve
Depreciation - Factors								
COT		0%	6.80%					
CDH		0%	19.09%					
CST		0%	2.06%					
COE		0%	6.69%					
CCE		0%	14.48%					
CAU		0%	7.52%					
CIS		0%	24.87%					
GGP		0%	7.35%					
EGP		0%	6.26%					

Taxes

	Rate	Input ====>																												
Property Tax Rate	1.571816%							1.572%													1.572%									
Property Tax Amount ($)																														
Business and Other Taxes	0.00%																													
Payroll (Percent of Labor)	0.00%																													
State Tax Rate	8.84%																													
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)	Prior																													
Composite Federal & State	27.98%																													

	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Straight Line Basis	Normalization	Tax Repair %	Software FL %
Federal Tax Depreciation - Factors									
COT	7	MACRS	2.0	1.00000	-	100.00%	Normalized		
CDH	5	MACRS	2.0	1.00000		100.00%	Normalized		
CST	39	MACRS	1.0	0.99095		99.09%	Normalized	0.91%	
COE	7	MACRS	2.0	1.00000		100.00%	Normalized		
CCE	5	MACRS	2.0	1.00000		100.00%	Normalized		
CAU	5	MACRS	2.0	1.00000		100.00%	Normalized		
CIS	3	MACRS	1.0	1.00000		100.00%	Normalized		
GGP	7	MACRS	2.0	1.00000		100.00%	Normalized		
EGP	7	MACRS	2.0	1.00000		100.00%	Normalized		

Note: If use composite property tax rate, enter rate in cell E162, otherwise overwrite rate at each year in July column.

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and General Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30
State Tax Depreciation - Factors	Life	Method	Factor	Basis Adj	Accumulated Deferred Tax	Normalization																								
COT	12	ADR_SYD	2.0	1.00000		Flow-through																								
CDH	6	ADR_SYD	2.0	1.00000		Flow-through																								
CST	45	ADR SL 45	1.0	0.99095		Flow-through																								
COE	10	ADR_SYD	2.0	1.00000		Flow-through																								
CCE	6	ADR_SYD	2.0	1.00000		Flow-through																								
CAU	6	ADR_SYD	2.0	1.00000		Flow-through																								
CIS	3	SL 3	1.0	1.00000		Flow-through																								
GGP	12	ADR_SYD	2.0	1.00000		Flow-through																								
EGP	12	ADR_SYD	2.0	1.00000		Flow-through																								
Repair Allowance																														
Federal	721,366	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
State	721,366	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																														
Federal	-																													
State	-																													

Capital Structure (%)

Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost of Capital (%)

Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Book Depreciation Rates

	Monthly Rate	-	01-28	02-28	03-28	04-28	05-28	06-28	07-28	08-28	09-28	10-28	11-28	12-28	01-29	02-29	03-29	04-29	05-29	06-29	07-29	08-29	09-29	10-29	11-29	12-29	01-30	02-30	03-30	04-30	05-30
2	COT	0.00%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
3	CDH	0.00%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
4	CST	0.00%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
5	COE	0.00%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%
6	CCE	0.00%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%
7	CAU	0.00%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
8	CIS	0.00%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
9	GGP	0.00%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
10	EGP	0.00%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%

Federal Tax Depreciation Rates

COT

Life	7																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	14.286	24.490	17.493	12.495	8.925	8.925	8.925	4.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	14.286	38.776	56.268	68.763	77.688	86.613	95.538	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

CDH

Life	5																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	20.000	32.000	19.200	11.520	11.520	5.760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	20.000	52.000	71.200	82.720	94.240	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and General Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30
CST																														
Life	39																													
Method	MACRS																													
Factor	1.0																													
Basis Adjustment	0.9909																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	39.50	38.50	37.50	36.50	35.50	34.50	33.50	32.50	31.50	30.50	29.50	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50
Annual Depreciation	1.282	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564
Reserve	1.282	3.846	6.410	8.974	11.538	14.103	16.667	19.231	21.795	24.359	26.923	29.487	32.051	34.615	37.179	39.744	42.308	44.872	47.436	50.000	52.564	55.128	57.692	60.256	62.821	65.385	67.949	70.513	73.077	75.641
Rate	0.01282	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564
Incentive	0.01282	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564
COE																														
Life	7																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	14.286	24.490	17.493	12.495	8.925	8.925	8.925	4.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	14.286	38.776	56.268	68.763	77.688	86.613	95.538	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CCE																														
Life	5																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	20.000	32.000	19.200	11.520	11.520	5.760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	20.000	52.000	71.200	82.720	94.240	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAU																														
Life	5																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	20.000	32.000	19.200	11.520	11.520	5.760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	20.000	52.000	71.200	82.720	94.240	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CIS																														
Life	3																													
Method	MACRS																													
Factor	1.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GGP																														
Life	7																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	14.286	24.490	17.493	12.495	8.925	8.925	8.925	4.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	14.286	38.776	56.268	68.763	77.688	86.613	95.538	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EGP																														
Life	7																													
Method	MACRS																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	14.286	24.490	17.493	12.495	8.925	8.925	8.925	4.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	14.286	38.776	56.268	68.763	77.688	86.613	95.538	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																														
COT																														
Life	12																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	8.333	15.278	13.258	11.995	10.732	9.470	8.207	6.944	5.682	4.419	3.157	1.894	0.631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	8.333	23.611	36.869	48.864	59.596	69.066	77.273	84.217	89.899	94.318	97.475	99.369	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.08333	0.15278	0.13258	0.11995	0.10732	0.09470	0.08207	0.06944	0.05682	0.04419	0.03157	0.01894	0.00631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and General Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30
CDH																														
Life	6																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	27.778	20.000	15.556	11.111	6.667	2.222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	44.444	64.444	80.000	91.111	97.778	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.27778	0.20000	0.15556	0.11111	0.06667	0.02222	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CST																														
Life	45																													
Method	ADR SL 45																													
Factor	1.0																													
Basis Adjustment	0.9909																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	45.50	44.50	43.50	42.50	41.50	40.50	39.50	38.50	37.50	36.50	35.50	34.50	33.50	32.50	31.50	30.50	29.50	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50	16.50
Annual Depreciation	1.111	4.346	4.249	4.151	4.053	3.956	3.858	3.760	3.663	3.565	3.467	3.370	3.272	3.174	3.077	2.979	2.881	2.784	2.686	2.588	2.491	2.393	2.295	2.198	2.100	2.002	1.905	1.807	1.709	1.612
Reserve	1.111	5.457	9.706	13.857	17.910	21.866	25.723	29.484	33.146	36.711	40.178	43.548	46.820	49.994	53.071	56.049	58.931	61.714	64.400	66.988	69.479	71.872	74.167	76.364	78.464	80.466	82.371	84.178	85.887	87.498
Rate	0.01111	0.04346	0.04249	0.04151	0.04053	0.03956	0.03858	0.03760	0.03663	0.03565	0.03467	0.03370	0.03272	0.03174	0.03077	0.02979	0.02881	0.02784	0.02686	0.02588	0.02491	0.02393	0.02295	0.02198	0.02100	0.02002	0.01905	0.01807	0.01709	0.01612
COE																														
Life	10																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	10.000	18.000	15.111	13.333	11.556	9.778	8.000	6.222	4.444	2.667	0.889	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	10.000	28.000	43.111	56.444	68.000	77.778	85.778	92.000	96.444	99.111	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.10000	0.18000	0.15111	0.13333	0.11556	0.09778	0.08000	0.06222	0.04444	0.02667	0.00889	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CCE																														
Life	6																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	27.778	20.000	15.556	11.111	6.667	2.222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	44.444	64.444	80.000	91.111	97.778	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.27778	0.20000	0.15556	0.11111	0.06667	0.02222	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAU																														
Life	6																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	27.778	20.000	15.556	11.111	6.667	2.222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	44.444	64.444	80.000	91.111	97.778	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.27778	0.20000	0.15556	0.11111	0.06667	0.02222	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CIS																														
Life	3																													
Method	SL 3																													
Factor	1.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GGP																														
Life	12																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	8.333	15.278	13.258	11.995	10.732	9.470	8.207	6.944	5.682	4.419	3.157	1.894	0.631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	8.333	23.611	36.869	48.864	59.596	69.066	77.273	84.217	89.899	94.318	97.475	99.369	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.08333	0.15278	0.13258	0.11995	0.10732	0.09470	0.08207	0.06944	0.05682	0.04419	0.03157	0.01894	0.00631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EGP																														
Life	12																													
Method	ADR_SYD																													
Factor	2.0																													
Basis Adjustment	1.0000																													
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remaining Life	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	8.333	15.278	13.258	11.995	10.732	9.470	8.207	6.944	5.682	4.419	3.157	1.894	0.631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	8.333	23.611	36.869	48.864	59.596	69.066	77.273	84.217	89.899	94.318	97.475	99.369	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.08333	0.15278	0.13258	0.11995	0.10732	0.09470	0.08207	0.06944	0.05682	0.04419	0.03157	0.01894	0.00631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

		Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32
Analysis Period																											
Analysis Life																											
Sensitivity																											
Jurisdiction																											
Fixed Costs																											
Variable Costs																											
Plant Investment (Nominal)																											
Gross Plant Additions																											
C	COT	-	-	-	-	-	-	-	71,133	71,133	71,133	71,133	71,133	71,133	71,133	71,133	71,133	71,133	71,133	71,133	109,478	109,478	109,478	109,478	109,478	109,478	109,478
C	CDH	-	-	-	-	-	-	-	92,643	92,643	92,643	92,643	92,643	92,643	92,643	92,643	92,643	92,643	92,643	92,643	143,470	143,470	143,470	143,470	143,470	143,470	143,470
C	CST	-	-	-	-	-	-	-	979,655	979,655	979,655	979,655	979,655	979,655	979,655	979,655	979,655	979,655	979,655	979,655	1,496,888	1,496,888	1,496,888	1,496,888	1,496,888	1,496,888	1,496,888
C	COE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CCE	-	-	-	-	-	-	-	9,637	9,637	9,637	9,637	9,637	9,637	9,637	9,637	9,637	9,637	9,637	9,637	16,193	16,193	16,193	16,193	16,193	16,193	16,193
C	CAU	-	-	-	-	-	-	-	314,245	314,245	314,245	314,245	314,245	314,245	314,245	314,245	314,245	314,245	314,245	314,245	480,081	480,081	480,081	480,081	480,081	480,081	480,081
C	CIS	-	-	-	-	-	-	-	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,201,189	1,366,864	1,366,864	1,366,864	1,366,864	1,366,864	1,366,864	1,366,864
G	GGP	-	-	-	-	-	-	-	155,791	155,791	155,791	155,791	155,791	155,791	155,791	155,791	155,791	155,791	155,791	155,791	267,101	267,101	267,101	267,101	267,101	267,101	267,101
G	EGP	-	-	-	-	-	-	-	56,169	56,169	56,169	56,169	56,169	56,169	56,169	56,169	56,169	56,169	56,169	56,169	91,684	91,684	91,684	91,684	91,684	91,684	91,684
Storage																											
Labor																											
Materials & Services																											
Other																											
Transmission																											
Labor																											
Materials & Services																											
Other																											
Distribution																											
Labor																											
Materials & Services																											
Other																											
Customer Accounts																											
Labor																											
Materials & Services																											
Other																											
Customer Services																											
Labor																											
Materials & Services																											
Other																											
Administrative and General																											
Labor																											
Materials & Services																											
Other																											
Wage-Related																											
Medical																											
Benefits		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Book Capitalization																											
Depreciation - Factors																											
COT																											
CDH																											
CST																											
COE																											
CCE																											
CAU																											
CIS																											
GGP																											
EGP																											
Taxes																											
Property Tax Rate			1.572%												1.572%												1.572%
Property Tax Amount ($)																											
Business and Other Taxes																											
Payroll (Percent of Labor)																											
State Tax Rate																											
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																											
Composite Federal & State																											
Federal Tax Depreciation - Factors																											
COT																											
CDH																											
CST																											
COE																											
CCE																											
CAU																											
CIS																											
GGP																											
EGP																											

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32
State Tax Depreciation - Factors																										
COT																										
CDH																										
CST																										
COE																										
CCE																										
CAU																										
CIS																										
GGP																										
EGP																										
Repair Allowance																										
Federal	-	-	-	-	-	-	-	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	13,547	13,547	13,547	13,547	13,547	13,547	13,547
State	-	-	-	-	-	-	-	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	8,866	13,547	13,547	13,547	13,547	13,547	13,547	13,547
Software Allowance																										
Federal																										
State																										
Capital Structure (%)																										
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																										
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																										
Monthly Rate	06-30	07-30	08-30	09-30	10-30	11-30	12-30	01-31	02-31	03-31	04-31	05-31	06-31	07-31	08-31	09-31	10-31	11-31	12-31	01-32	02-32	03-32	04-32	05-32	06-32	07-32
2 COT	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
3 CDH	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
4 CST	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
5 COE	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%
6 CCE	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%
7 CAU	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
8 CIS	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
9 GGP	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
10 EGP	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%
Federal Tax Depreciation Rates																										
COT																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CDH																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32
CST																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	2.564	1.282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	78.205	80.769	83.333	85.897	88.462	91.026	93.590	96.154	98.718	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.01282	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.02564	0.01282	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
COE																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CCE																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAU																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CIS																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GGP																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EGP																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																										
COT																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32
CDH																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CST																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	1.514	1.416	1.319	1.221	1.123	1.026	0.928	0.830	0.733	0.635	0.537	0.440	0.342	0.244	0.147	0.049	-	-	-	-	-	-	-	-	-	-
Reserve	89.012	90.429	91.747	92.968	94.091	95.117	96.044	96.875	97.607	98.242	98.779	99.219	99.560	99.805	99.951	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.01514	0.01416	0.01319	0.01221	0.01123	0.01026	0.00928	0.00830	0.00733	0.00635	0.00537	0.00440	0.00342	0.00244	0.00147	0.00049	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
COE																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CCE																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAU																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CIS																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GGP																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EGP																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

		Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35
Analysis Period																																		
Analysis Life																																		
Sensitivity																																		
Jurisdiction																																		
Fixed Costs																																		
Variable Costs																																		
Plant Investment (Nominal)																																		
Gross Plant Additions																																		
C	COT	109,478	109,478	109,478	109,478	109,478	115,578	115,578	115,578	115,578	115,578	115,578	115,578	115,578	115,578	115,578	115,578	115,578	115,646	115,646	115,646	115,646	115,646	115,646	115,646	115,646	115,646	115,646	115,646	115,646	78,693	78,693	78,693	78,693
C	CDH	143,470	143,470	143,470	143,470	143,470	151,435	151,435	151,435	151,435	151,435	151,435	151,435	151,435	151,435	151,435	151,435	151,435	154,800	154,800	154,800	154,800	154,800	154,800	154,800	154,800	154,800	154,800	154,800	154,800	74,585	74,585	74,585	74,585
C	CST	1,496,888	1,496,888	1,496,888	1,496,888	1,496,888	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,548,180	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	1,579,188	504,194	504,194	504,194	504,194
C	COE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CCE	16,193	16,193	16,193	16,193	16,193	18,042	18,042	18,042	18,042	18,042	18,042	18,042	18,042	18,042	18,042	18,042	18,042	18,525	18,525	18,525	18,525	18,525	18,525	18,525	18,525	18,525	18,525	18,525	18,525	11,060	11,060	11,060	11,060
C	CAU	480,081	480,081	480,081	480,081	480,081	496,546	496,546	496,546	496,546	496,546	496,546	496,546	496,546	496,546	496,546	496,546	496,546	506,491	506,491	506,491	506,491	506,491	506,491	506,491	506,491	506,491	506,491	506,491	506,491	161,962	161,962	161,962	161,962
C	CIS	1,366,864	1,366,864	1,366,864	1,366,864	1,366,864	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,398,738	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,426,822	1,785,582	1,785,582	1,785,582	1,785,582
G	GGP	267,101	267,101	267,101	267,101	267,101	302,373	302,373	302,373	302,373	302,373	302,373	302,373	302,373	302,373	302,373	302,373	302,373	310,856	310,856	310,856	310,856	310,856	310,856	310,856	310,856	310,856	310,856	310,856	310,856	236,405	236,405	236,405	236,405
G	EGP	91,684	91,684	91,684	91,684	91,684	101,550	101,550	101,550	101,550	101,550	101,550	101,550	101,550	101,550	101,550	101,550	101,550	104,214	104,214	104,214	104,214	104,214	104,214	104,214	104,214	104,214	104,214	104,214	104,214	77,675	77,675	77,675	77,675
Storage																																		
Labor																																		
Materials & Services																																		
Other																																		
Transmission																																		
Labor																																		
Materials & Services																																		
Other																																		
Distribution																																		
Labor																																		
Materials & Services																																		
Other																																		
Customer Accounts																																		
Labor																																		
Materials & Services																																		
Other																																		
Customer Services																																		
Labor																																		
Materials & Services																																		
Other																																		
Administrative and General																																		
Labor																																		
Materials & Services																																		
Other																																		
Wage-Related																																		
Medical																																		
Benefits		-	-	-	-	-																												
Book Capitalization																																		
Depreciation - Factors																																		
COT																																		
CDH																																		
CST																																		
COE																																		
CCE																																		
CAU																																		
CIS																																		
GGP																																		
EGP																																		
Taxes																																		
Property Tax Rate													1.572%												1.572%									
Property Tax Amount ($)																																		
Business and Other Taxes																																		
Payroll (Percent of Labor)																																		
State Tax Rate																																		
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																		
Composite Federal & State																																		
Federal Tax Depreciation - Factors																																		
COT																																		
CDH																																		
CST																																		
COE																																		
CCE																																		
CAU																																		
CIS																																		
GGP																																		
EGP																																		

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35
State Tax Depreciation - Factors																																	
COT																																	
CDH																																	
CST																																	
COE																																	
CCE																																	
CAU																																	
CIS																																	
GGP																																	
EGP																																	
Repair Allowance																																	
Federal	13,547	13,547	13,547	13,547	13,547	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	4,563	4,563	4,563	4,563
State	13,547	13,547	13,547	13,547	13,547	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,012	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	14,292	4,563	4,563	4,563	4,563
Software Allowance																																	
Federal																																	
State																																	
Capital Structure (%)																																	
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																	
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																																	
Monthly Rate	08-32	09-32	10-32	11-32	12-32	01-33	02-33	03-33	04-33	05-33	06-33	07-33	08-33	09-33	10-33	11-33	12-33	01-34	02-34	03-34	04-34	05-34	06-34	07-34	08-34	09-34	10-34	11-34	12-34	01-35	02-35	03-35	04-35
2 COT	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
3 CDH	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
4 CST	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
5 COE	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%
6 CCE	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%
7 CAU	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
8 CIS	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
9 GGP	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
10 EGP	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%
Federal Tax Depreciation Rates																																	
COT																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CDH																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and G
Model Inputs ($)

	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35
CST																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
COE																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CCE																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CIS																																	
Life																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
GGP																																	
Life																																	
Method																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
EGP																																	
Life																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
State Tax Depreciation Rates																																	
COT																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35
CDH																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CST																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
COE																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CCE																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CAU																																	
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Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CIS																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
GGP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
EGP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

		May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37	Oct-37
Analysis Period																														
Analysis Life																														
Sensitivity																														
Jurisdiction																														
Fixed Costs																														
Variable Costs																														
Plant Investment (Nominal)																														
Gross Plant Additions																														
C	COT	78,693	78,693	78,693	78,693	78,693	78,693	78,693	78,693	66,925	66,925	66,925	66,925	66,925	66,925	66,925	66,925	66,925	66,925	66,925	66,925	68,277	68,277	68,277	68,277	68,277	68,277	68,277	68,277	68,277
C	CDH	74,585	74,585	74,585	74,585	74,585	74,585	74,585	74,585	47,755	47,755	47,755	47,755	47,755	47,755	47,755	47,755	47,755	47,755	47,755	47,755	48,720	48,720	48,720	48,720	48,720	48,720	48,720	48,720	48,720
C	CST	504,194	504,194	504,194	504,194	504,194	504,194	504,194	504,194	138,014	138,014	138,014	138,014	138,014	138,014	138,014	138,014	138,014	138,014	138,014	138,014	140,802	140,802	140,802	140,802	140,802	140,802	140,802	140,802	140,802
C	COE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CCE	11,060	11,060	11,060	11,060	11,060	11,060	11,060	11,060	8,618	8,618	8,618	8,618	8,618	8,618	8,618	8,618	8,618	8,618	8,618	8,618	8,792	8,792	8,792	8,792	8,792	8,792	8,792	8,792	8,792
C	CAU	161,962	161,962	161,962	161,962	161,962	161,962	161,962	161,962	44,608	44,608	44,608	44,608	44,608	44,608	44,608	44,608	44,608	44,608	44,608	44,608	45,509	45,509	45,509	45,509	45,509	45,509	45,509	45,509	45,509
C	CIS	1,785,582	1,785,582	1,785,582	1,785,582	1,785,582	1,785,582	1,785,582	1,785,582	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,043,674	1,064,756	1,064,756	1,064,756	1,064,756	1,064,756	1,064,756	1,064,756	1,064,756	1,064,756
G	GGP	236,405	236,405	236,405	236,405	236,405	236,405	236,405	236,405	213,738	213,738	213,738	213,738	213,738	213,738	213,738	213,738	213,738	213,738	213,738	213,738	218,055	218,055	218,055	218,055	218,055	218,055	218,055	218,055	218,055
G	EGP	77,675	77,675	77,675	77,675	77,675	77,675	77,675	77,675	69,506	69,506	69,506	69,506	69,506	69,506	69,506	69,506	69,506	69,506	69,506	69,506	70,910	70,910	70,910	70,910	70,910	70,910	70,910	70,910	70,910
Storage																														
Labor																														
Materials & Services																														
Other																														
Transmission																														
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Distribution																														
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Other																														
Administrative and General																														
Labor																														
Materials & Services																														
Other																														
Wage-Related																														
Medical																														
Benefits																														
Book Capitalization																														
Depreciation - Factors																														
COT																														
CDH																														
CST																														
COE																														
CCE																														
CAU																														
CIS																														
GGP																														
EGP																														
Taxes																														
Property Tax Rate				1.572%												1.572%											1.572%			
Property Tax Amount ($)																														
Business and Other Taxes																														
Payroll (Percent of Labor)																														
State Tax Rate																														
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																														
Composite Federal & State																														
Federal Tax Depreciation - Factors																														
COT																														
CDH																														
CST																														
COE																														
CCE																														
CAU																														
CIS																														
GGP																														
EGP																														

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37	Oct-37
State Tax Depreciation - Factors																														
COT																														
CDH																														
CST																														
COE																														
CCE																														
CAU																														
CIS																														
GGP																														
EGP																														
Repair Allowance																														
Federal	4,563	4,563	4,563	4,563	4,563	4,563	4,563	4,563	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274
State	4,563	4,563	4,563	4,563	4,563	4,563	4,563	4,563	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274
Software Allowance																														
Federal																														
State																														
Capital Structure (%)																														
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																														
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

	Book Depreciation Rates																													
	Monthly Rate	05-35	06-35	07-35	08-35	09-35	10-35	11-35	12-35	01-36	02-36	03-36	04-36	05-36	06-36	07-36	08-36	09-36	10-36	11-36	12-36	01-37	02-37	03-37	04-37	05-37	06-37	07-37	08-37	09-37	10-37
2	COT	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
3	CDH	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
4	CST	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
5	COE	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%
6	CCE	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%
7	CAU	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
8	CIS	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
9	GGP	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
10	EGP	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%

Federal Tax Depreciation Rates

COT
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

CDH
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37	Oct-37
CST																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
Reserve																														
Rate																														
Incentive																														
COE																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
Reserve																														
Rate																														
Incentive																														
CCE																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
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CAU																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
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Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
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Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
Reserve																														
Rate																														
Incentive																														
State Tax Depreciation Rates																														
COT																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
Reserve																														
Rate																														

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37	Oct-37
CDH																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
Reserve																														
Rate																														
CST																														
Life																														
Method																														
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Remaining Life																														
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COE																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
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Remaining Life																														
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CCE																														
Life																														
Method																														
Factor																														
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Year																														
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EGP																														
Life																														
Method																														
Factor																														
Basis Adjustment																														
Year																														
Remaining Life																														
Annual Depreciation																														
Reserve																														
Rate																														

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

		Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
Analysis Period																											
Analysis Life																											
Sensitivity																											
Jurisdiction																											
Fixed Costs																											
Variable Costs																											
Plant Investment (Nominal)																											
Gross Plant Additions																											
C	COT	68,277	68,277	69,656	69,656	69,656	69,656	69,656	69,656	69,656	69,656	69,656	69,656	69,656	69,656	69,967	69,967	69,967	69,967	69,967	69,967	69,967	69,967	69,967	69,967	69,967	69,967
C	CDH	48,720	48,720	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704	47,704	47,704	47,704	47,704	47,704	47,704	47,704	47,704	47,704	47,704	47,704	47,704
C	CST	140,802	140,802	143,646	143,646	143,646	143,646	143,646	143,646	143,646	143,646	143,646	143,646	143,646	143,646	111,566	111,566	111,566	111,566	111,566	111,566	111,566	111,566	111,566	111,566	111,566	111,566
C	COE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CCE	8,792	8,792	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,861	8,861	8,861	8,861	8,861	8,861	8,861	8,861	8,861	8,861	8,861	8,861
C	CAU	45,509	45,509	46,429	46,429	46,429	46,429	46,429	46,429	46,429	46,429	46,429	46,429	46,429	46,429	36,054	36,054	36,054	36,054	36,054	36,054	36,054	36,054	36,054	36,054	36,054	36,054
C	CIS	1,064,756	1,064,756	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	1,086,264	951,474	951,474	951,474	951,474	951,474	951,474	951,474	951,474	951,474	951,474	951,474	951,474
G	GGP	218,055	218,055	222,460	222,460	222,460	222,460	222,460	222,460	222,460	222,460	222,460	222,460	222,460	222,460	222,185	222,185	222,185	222,185	222,185	222,185	222,185	222,185	222,185	222,185	222,185	222,185
G	EGP	70,910	70,910	72,343	72,343	72,343	72,343	72,343	72,343	72,343	72,343	72,343	72,343	72,343	72,343	68,513	68,513	68,513	68,513	68,513	68,513	68,513	68,513	68,513	68,513	68,513	68,513
Storage																											
Labor																											
Materials & Services																											
Other																											
Transmission																											
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Distribution																											
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Other																											
Administrative and General																											
Labor																											
Materials & Services																											
Other																											
Wage-Related																											
Medical																											
Benefits																											
Book Capitalization																											
Depreciation - Factors																											
COT																											
CDH																											
CST																											
COE																											
CCE																											
CAU																											
CIS																											
GGP																											
EGP																											
Taxes																											
Property Tax Rate										1.572%												1.572%					
Property Tax Amount ($)																											
Business and Other Taxes																											
Payroll (Percent of Labor)																											
State Tax Rate																											
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																											
Composite Federal & State																											
Federal Tax Depreciation - Factors																											
COT																											
CDH																											
CST																											
COE																											
CCE																											
CAU																											
CIS																											
GGP																											
EGP																											

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
State Tax Depreciation - Factors																										
COT																										
CDH																										
CST																										
COE																										
CCE																										
CAU																										
CIS																										
GGP																										
EGP																										
Repair Allowance																										
Federal	1,274	1,274	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010
State	1,274	1,274	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010
Software Allowance																										
Federal																										
State																										
Capital Structure (%)																										
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																										
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

		11-37	12-37	01-38	02-38	03-38	04-38	05-38	06-38	07-38	08-38	09-38	10-38	11-38	12-38	01-39	02-39	03-39	04-39	05-39	06-39	07-39	08-39	09-39	10-39	11-39	12-39
Book Depreciation Rates																											
	Monthly Rate																										
2	COT	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
3	CDH	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
4	CST	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
5	COE	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%
6	CCE	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%	1.21%
7	CAU	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
8	CIS	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
9	GGP	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
10	EGP	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%

Federal Tax Depreciation Rates

COT
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

CDH
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
CST																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year																										
Remaining Life																										
Annual Depreciation																										
Reserve																										
Rate																										
Incentive																										
COE																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year																										
Remaining Life																										
Annual Depreciation																										
Reserve																										
Rate																										
Incentive																										
CCE																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year																										
Remaining Life																										
Annual Depreciation																										
Reserve																										
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Incentive																										
State Tax Depreciation Rates																										
COT																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year																										
Remaining Life																										
Annual Depreciation																										
Reserve																										
Rate																										

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Common and C
Model Inputs ($)

	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
CDH																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year																										
Remaining Life																										
Annual Depreciation																										
Reserve																										
Rate																										
CST																										
Life																										
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Basis Adjustment																										
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Life																										
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EGP																										
Life																										
Method																										
Factor																										
Basis Adjustment																										
Year																										
Remaining Life																										
Annual Depreciation																										
Reserve																										
Rate																										

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plant
Model Inputs ($)

		Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29
Analysis Period			**Jan-28 Through**	**Dec-53**																			
Analysis Life			26 Years																				
Sensitivity			0.01																				
Jurisdiction			CPUC																				
Fixed Costs			1.000000																				
Variable Costs			1.000000																				
Plant Investment (Nominal)																							
Gross Plant Additions		**134,747,912**	**Input ====>**																				
C	CIP	92,310,770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	CII	37,665,421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	EIP	4,771,720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Book Capitalization

Depreciation - Factors	Life	Salvage	Inpute Rate 1/1/2028	Inpute Rate	Inpute Rate		Sunk Investment (End of Base Year) Avg. Age	Initial Plant	Initial Reserve
CIP		0%	17.01%						
CII		0%	10.05%	0.00%	0.00%	0.00%			
EIP		0%	7.16%	0.00%	0.00%	0.00%			

Taxes **Rate** **Input ====>** Note: If use composite property tax rate, enter rate in cell E162, otherwise overwrite rate at each year in July column.

Property Tax Rate									0.000%												0.000%		
Property Tax Amount ($)																							
Business and Other Taxes	0.00%																						
Payroll (Percent of Labor)	0.00%																						
State Tax Rate	8.84%																						
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)	Prior																						
Composite Federal & State	27.98%																						

Federal Tax Depreciation - Factors	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Straight Line Basis	Normalization	Tax Repair %	Software FL %
CIP	3	SL MISC 3	1.0	0.47462	-	47.46%	Normalized	0.00%	52.54%
CII	3	SL MISC 3	1.0	0.47462		47.46%	Normalized	0.00%	52.54%
EIP	15	SL 15	1.0	1.00000		100.00%	Normalized		0.00%

State Tax Depreciation - Factors	Life	Method	Factor	Basis Adj	Accumulated Deferred Tax	Normalization
CIP	3	SL 3	1.0	0.47462		Flow-through
CII	3	SL 3	1.0	0.47462		Flow-through
EIP	15	SL 15	1.0	1.00000		Flow-through

Software Allowance																							
Federal	68,287,277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
State	68,287,277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Capital Structure (%)

Debt		47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity		52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost of Capital (%)

Debt		5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity		9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred		5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.		7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Book Depreciation Rates

	Monthly Rate	-	01-28	02-28	03-28	04-28	05-28	06-28	07-28	08-28	09-28	10-28	11-28	12-28	01-29	02-29	03-29	04-29	05-29	06-29	07-29	08-29	09-29
2	CIP	0.00%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%
3	CII	0.00%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%
4	EIP	0.00%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29
Federal Tax Depreciation Rates																						
CIP																						
Life	3																					
Method	SL MISC 3																					
Factor	1.0																					
Basis Adjustment	0.4746																					
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CII																						
Life	3																					
Method	SL MISC 3																					
Factor	1.0																					
Basis Adjustment	0.4746																					
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EIP																						
Life	15																					
Method	SL 15																					
Factor	1.0																					
Basis Adjustment	1.0000																					
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-
Annual Depreciation	3.333	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	3.333	-	-	-	-	-	-
Reserve	3.333	10.000	16.667	23.333	30.000	36.667	43.333	50.000	56.667	63.333	70.000	76.667	83.333	90.000	96.667	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.03333	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.03333	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.03333	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.03333	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																						
CIP																						
Life	3																					
Method	SL 3																					
Factor	1.0																					
Basis Adjustment	0.4746																					
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CII																						
Life	3																					
Method	SL 3																					
Factor	1.0																					
Basis Adjustment	0.4746																					
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	16.667	33.333	33.333	16.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	16.667	50.000	83.333	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.16667	0.33333	0.33333	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EIP																						
Life	15																					
Method	SL 15																					
Factor	1.0																					
Basis Adjustment	1.0000																					
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-
Annual Depreciation	3.333	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	6.667	3.333	-	-	-	-	-	-
Reserve	3.333	10.000	16.667	23.333	30.000	36.667	43.333	50.000	56.667	63.333	70.000	76.667	83.333	90.000	96.667	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.03333	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.06667	0.03333	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

		Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32
Analysis Period																																		
Analysis Life																																		
Sensitivity																																		
Jurisdiction																																		
	Fixed Costs																																	
	Variable Costs																																	
Plant Investment (Nominal)																																		
Gross Plant Additions																																		
C	CIP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	878,009	878,009	878,009	878,009	878,009	878,009	878,009	878,009	878,009	878,009	878,009	878,009	1,206,876	1,206,876	1,206,876	1,206,876	1,206,876	1,206,876
C	CII	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	279,025	279,025	279,025	279,025	279,025	279,025	279,025	279,025	279,025	279,025	279,025	279,025	461,111	461,111	461,111	461,111	461,111	461,111
C	EIP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59,559	59,559	59,559	59,559	59,559	59,559	59,559	59,559	59,559	59,559	59,559	59,559	61,474	61,474	61,474	61,474	61,474	61,474
Book Capitalization																																		
Depreciation - Factors																																		
	CIP																																	
	CII																																	
	EIP																																	
Taxes																																		
Property Tax Rate											0.000%												0.000%											
Property Tax Amount ($)																																		
Business and Other Taxes																																		
Payroll (Percent of Labor)																																		
State Tax Rate																																		
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																		
Composite Federal & State																																		
Federal Tax Depreciation - Factors																																		
	CIP																																	
	CII																																	
	EIP																																	
State Tax Depreciation - Factors																																		
	CIP																																	
	CII																																	
	EIP																																	
Software Allowance																																		
	Federal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	876,332	876,332	876,332	876,332	876,332	876,332
	State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	607,886	876,332	876,332	876,332	876,332	876,332	876,332
Capital Structure (%)																																		
Debt		47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity		52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																		
Debt		5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity		9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred		5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.		7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																																		
Monthly Rate		10-29	11-29	12-29	01-30	02-30	03-30	04-30	05-30	06-30	07-30	08-30	09-30	10-30	11-30	12-30	01-31	02-31	03-31	04-31	05-31	06-31	07-31	08-31	09-31	10-31	11-31	12-31	01-32	02-32	03-32	04-32	05-32	06-32
2 CIP		1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%
3 CII		0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%
4 EIP		0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32
Federal Tax Depreciation Rates																																	
CIP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CII																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EIP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																																	
CIP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CII																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EIP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

		Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35
Analysis Period																																			
Analysis Life																																			
Sensitivity																																			
Jurisdiction																																			
Fixed Costs																																			
Variable Costs																																			
Plant Investment (Nominal)																																			
Gross Plant Additions																																			
C	CIP	1,206,876	1,206,876	1,206,876	1,206,876	1,206,876	1,206,876	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,258,491	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	1,285,373	927,462	927,462	927,462	927,462
C	CII	461,111	461,111	461,111	461,111	461,111	461,111	511,641	511,641	511,641	511,641	511,641	511,641	511,641	511,641	511,641	511,641	511,641	511,641	525,165	525,165	525,165	525,165	525,165	525,165	525,165	525,165	525,165	525,165	525,165	525,165	321,358	321,358	321,358	321,358
C	EIP	61,474	61,474	61,474	61,474	61,474	61,474	51,478	51,478	51,478	51,478	51,478	51,478	51,478	51,478	51,478	51,478	51,478	51,478	35,686	35,686	35,686	35,686	35,686	35,686	35,686	35,686	35,686	35,686	35,686	35,686	36,403	36,403	36,403	36,403
Book Capitalization																																			
Depreciation - Factors																																			
CIP																																			
CII																																			
EIP																																			
Taxes																																			
Property Tax Rate		0.000%												0.000%												0.000%									
Property Tax Amount ($)																																			
Business and Other Taxes																																			
Payroll (Percent of Labor)																																			
State Tax Rate																																			
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																			
Composite Federal & State																																			
Federal Tax Depreciation - Factors																																			
CIP																																			
CII																																			
EIP																																			
State Tax Depreciation - Factors																																			
CIP																																			
CII																																			
EIP																																			
Software Allowance																																			
Federal		876,332	876,332	876,332	876,332	876,332	876,332	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	656,109	656,109	656,109	656,109
State		876,332	876,332	876,332	876,332	876,332	876,332	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	929,997	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	951,226	656,109	656,109	656,109	656,109
Capital Structure (%)																																			
Debt		47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity		52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																			
Debt		5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity		9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred		5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.		7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																																			
Monthly Rate		07-32	08-32	09-32	10-32	11-32	12-32	01-33	02-33	03-33	04-33	05-33	06-33	07-33	08-33	09-33	10-33	11-33	12-33	01-34	02-34	03-34	04-34	05-34	06-34	07-34	08-34	09-34	10-34	11-34	12-34	01-35	02-35	03-35	04-35
2 CIP		1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%
3 CII		0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%
4 EIP		0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35
Federal Tax Depreciation Rates																																		
CIP																																		
Life																																		
Method																																		
Factor																																		
Basis Adjustment																																		
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CII																																		
Life																																		
Method																																		
Factor																																		
Basis Adjustment																																		
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
EIP																																		
Life																																		
Method																																		
Factor																																		
Basis Adjustment																																		
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
State Tax Depreciation Rates																																		
CIP																																		
Life																																		
Method																																		
Factor																																		
Basis Adjustment																																		
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
CII																																		
Life																																		
Method																																		
Factor																																		
Basis Adjustment																																		
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			
EIP																																		
Life																																		
Method																																		
Factor																																		
Basis Adjustment																																		
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70																			
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																			
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000																			
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

		May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37	Oct-37	Nov-37	Dec-37	Jan-38
Analysis Period																																	
Analysis Life																																	
Sensitivity																																	
Jurisdiction																																	
Fixed Costs																																	
Variable Costs																																	
Plant Investment (Nominal)																																	
Gross Plant Additions																																	
C	CIP	927,462	927,462	927,462	927,462	927,462	927,462	927,462	927,462	533,549	533,549	533,549	533,549	533,549	533,549	533,549	533,549	533,549	533,549	533,549	533,549	544,327	544,327	544,327	544,327	544,327	544,327	544,327	544,327	544,327	544,327	544,327	555,322
C	CII	321,358	321,358	321,358	321,358	321,358	321,358	321,358	321,358	254,952	254,952	254,952	254,952	254,952	254,952	254,952	254,952	254,952	254,952	254,952	254,952	260,102	260,102	260,102	260,102	260,102	260,102	260,102	260,102	260,102	260,102	260,102	265,356
C	EIP	36,403	36,403	36,403	36,403	36,403	36,403	36,403	36,403	37,139	37,139	37,139	37,139	37,139	37,139	37,139	37,139	37,139	37,139	37,139	37,139	37,889	37,889	37,889	37,889	37,889	37,889	37,889	37,889	37,889	37,889	37,889	38,654
Book Capitalization																																	
Depreciation - Factors																																	
CIP																																	
CII																																	
EIP																																	
Taxes																																	
Property Tax Rate				0.000%												0.000%											0.000%						
Property Tax Amount ($)																																	
Business and Other Taxes																																	
Payroll (Percent of Labor)																																	
State Tax Rate																																	
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																	
Composite Federal & State																																	
Federal Tax Depreciation - Factors																																	
CIP																																	
CII																																	
EIP																																	
State Tax Depreciation - Factors																																	
CIP																																	
CII																																	
EIP																																	
Software Allowance																																	
Federal		656,109	656,109	656,109	656,109	656,109	656,109	656,109	656,109	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	431,170
State		656,109	656,109	656,109	656,109	656,109	656,109	656,109	656,109	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	414,265	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	422,633	431,170
Capital Structure (%)																																	
Debt		47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity		52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																	
Debt		5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity		9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred		5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.		7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																																	
	Monthly Rate	05-35	06-35	07-35	08-35	09-35	10-35	11-35	12-35	01-36	02-36	03-36	04-36	05-36	06-36	07-36	08-36	09-36	10-36	11-36	12-36	01-37	02-37	03-37	04-37	05-37	06-37	07-37	08-37	09-37	10-37	11-37	12-37	01-38
2	CIP	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%
3	CII	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%
4	EIP	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37	Oct-37	Nov-37	Dec-37	Jan-38
Federal Tax Depreciation Rates																																	
CIP																																	
Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year																																	
Remaining Life																																	
Annual Depreciation																																	
Reserve																																	
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Basis Adjustment																																	
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Life																																	
Method																																	
Factor																																	
Basis Adjustment																																	
Year																																	
Remaining Life																																	
Annual Depreciation																																	
Reserve																																	
Rate																																	

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

			Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
Analysis Period																									
	Analysis Life																								
	Sensitivity																								
	Jurisdiction																								
		Fixed Costs																							
		Variable Costs																							
Plant Investment (Nominal)																									
	Gross Plant Additions																								
	C	CIP	555,322	555,322	555,322	555,322	555,322	555,322	555,322	555,322	555,322	555,322	555,322	503,154	503,154	503,154	503,154	503,154	503,154	503,154	503,154	503,154	503,154	503,154	503,154
	C	CII	265,356	265,356	265,356	265,356	265,356	265,356	265,356	265,356	265,356	265,356	265,356	260,077	260,077	260,077	260,077	260,077	260,077	260,077	260,077	260,077	260,077	260,077	260,077
	C	EIP	38,654	38,654	38,654	38,654	38,654	38,654	38,654	38,654	38,654	38,654	38,654	39,361	39,361	39,361	39,361	39,361	39,361	39,361	39,361	39,361	39,361	39,361	39,361
Book Capitalization																									
	Depreciation - Factors																								
		CIP																							
		CII																							
		EIP																							
Taxes																									
	Property Tax Rate							0.000%												0.000%					
	Property Tax Amount ($)																								
	Business and Other Taxes																								
	Payroll (Percent of Labor)																								
	State Tax Rate																								
	Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
	CCFT Deduction ($000)																								
	Composite Federal & State																								
	Federal Tax Depreciation - Factors																								
		CIP																							
		CII																							
		EIP																							
	State Tax Depreciation - Factors																								
		CIP																							
		CII																							
		EIP																							
	Software Allowance																								
		Federal	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989
		State	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	431,170	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989	400,989
Capital Structure (%)																									
	Debt		47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
	Equity		52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
	Preferred		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																									
	Debt		5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
	Equity		9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
	Preferred		5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
	Weighted Avg.		7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																									
	Monthly Rate		02-38	03-38	04-38	05-38	06-38	07-38	08-38	09-38	10-38	11-38	12-38	01-39	02-39	03-39	04-39	05-39	06-39	07-39	08-39	09-39	10-39	11-39	12-39
2	CIP		1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%	1.42%
3	CII		0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%
4	EIP		0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - Intangible Plan
Model Inputs ($)

	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
Federal Tax Depreciation Rates																							
CIP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year																							
Remaining Life																							
Annual Depreciation																							
Reserve																							
Rate																							
Incentive																							
CII																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year																							
Remaining Life																							
Annual Depreciation																							
Reserve																							
Rate																							
Incentive																							
EIP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year																							
Remaining Life																							
Annual Depreciation																							
Reserve																							
Rate																							
Incentive																							
State Tax Depreciation Rates																							
CIP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year																							
Remaining Life																							
Annual Depreciation																							
Reserve																							
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Life																							
Method																							
Factor																							
Basis Adjustment																							
Year																							
Remaining Life																							
Annual Depreciation																							
Reserve																							
Rate																							
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Life																							
Method																							
Factor																							
Basis Adjustment																							
Year																							
Remaining Life																							
Annual Depreciation																							
Reserve																							
Rate																							

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Gen Functional Plant
Model Inputs ($)

		Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
Analysis Period			**Jan-28 Through Dec-86**																	
Analysis Life		59 Years																		
Sensitivity		0.01																		
Jurisdiction		CPUC																		
Fixed Costs		1.000000																		
Variable Costs		1.000000																		
Plant Investment (Nominal)																				
Gross Plant Additions		**4,384,563,507**	**Input ====>**																	
C	EDP	2,894,893,522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	GDP	743,223,979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	EDPL	2,293,751	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	GTP	398,295,482	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	GTE	17,148,637	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	GUS	91,143,776	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	GTPL	99,494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	GTS	173,444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	EHP	218,975,943	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EOPE	9,664,583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ESFG	7,794,983	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EPV	855,914	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Book Capitalization

		Inpute Rate	Inpute Rate	Inpute Rate	Sunk Investment (End of Base Year)		
Depreciation - Factors	Life	Salvage	1/1/2028			Avg. Age	Initial Plant	Initial Reserve
EDP		0%	3.88%					
GDP		0%	2.95%					
EDPL		0%	0.00%					
GTP		0%	2.41%					
GTE		0%	2.11%					
GUS		0%	2.84%					
GTPL		0%	0.00%					
GTS		0%	2.34%					
EHP		0%	2.66%					
EOPE		0%	5.25%					
ESFG		0%	3.54%					
EPV		0%	9.72%					

Taxes

	Rate	Input ====>	Note: If use composite property tax rate, enter rate in cell E162, otherwise overwrite rate at each year in July column.																
Property Tax Rate	1.571816%							1.572%											
Property Tax Amount ($)																			
Business and Other Taxes	0.00%																		
Payroll (Percent of Labor)	0.00%																		
State Tax Rate	8.84%																		
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)	Prior																		
Composite Federal & State	27.98%																		

Federal Tax Depreciation - Factors	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Straight Line Basis	Normalization	Tax Repair %	Software FL %
EDP	20	MACRS	1.5	0.72259	-	72.26%	Normalized	27.74%	
GDP	20	MACRS	1.5	0.47334		47.33%	Normalized	52.67%	
EDPL	-	MACRS	-	1.00000		100.00%	Normalized		
GTP	15	MACRS	1.5	0.75466		75.47%	Normalized	24.53%	
GTE	15	MACRS	1.5	1.00000		100.00%	Normalized	0.00%	
GUS	15	MACRS	1.5	1.00000		100.00%	Normalized	-	
GTPL	-	MACRS	-	1.00000		100.00%	Normalized	0.00%	
GTS	15	MACRS	1.5	1.00000		100.00%	Normalized	0.00%	
EHP	20	MACRS	1.5	0.71713		71.71%	Normalized	28.29%	
EOPE	7	MACRS	2.0	1.00000		1	Normalized		
ESFG	20	MACRS	1.5	1.00000		100.00%	Normalized		
EPV	5	MACRS	2.0	1.00000		1	Normalized		
Investment X									

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Gen Functional Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29

State Tax Depreciation - Factors	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Normalization
EDP	30	ADR_SYD	2.0	0.72259		Flow-through
GDP	35	ADR_SYD	2.0	0.47334		Flow-through
EDPL	-	ADR SL	-	1.00000		Flow-through
GTP	22	ADR_SYD	2.0	0.75466		Flow-through
GTE	22	ADR_SYD	2.0	1.00000		Flow-through
GUS	22	ADR_SYD	2.0	1.00000		Flow-through
GTPL	-		-	1.00000		Flow-through
GTS	22	ADR_SYD	2.0	1.00000		Flow-through
EHP	50	ADR_SYD	2.0	0.71713		Flow-through
EOPE	12	ADR SYD	2.0	1.00000		Flow-through
ESFG	28	ADR SYD	2.0	1.00000		Flow-through
EPV	12	ADR SYD	2.0	1.00000		Flow-through
Investment X						

Repair Allowance																				
Federal	1,354,167,469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
State	1,354,167,469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Capital Structure (%)

Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost of Capital (%)

Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Book Depreciation Rates

Monthly Rate	-	01-28	02-28	03-28	04-28	05-28	06-28	07-28	08-28	09-28	10-28	11-28	12-28	01-29	02-29	03-29	04-29	05-29	06-29
2 EDP	0.00%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
3 GDP	0.00%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
4 EDPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5 GTP	0.00%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
6 GTE	0.00%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
7 GUS	0.00%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
8 GTPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 GTS	0.00%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
10 EHP	0.00%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
11 EOPE	0.00%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
12 ESFG	0.00%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
13 EPV	0.00%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%
14 Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15 Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16 Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Federal Tax Depreciation Rates

EDP

Life	20																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	0.7226																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50
Annual Depreciation	3.750	7.219	6.677	6.177	5.713	5.285	4.888	4.522	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462
Reserve	3.750	10.969	17.646	23.823	29.536	34.821	39.709	44.231	48.693	53.154	57.616	62.077	66.539	71.000	75.462	79.923	84.385	88.846	93.308
Rate	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462
Incentive	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462

GDP

Life	20																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	0.4733																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50
Annual Depreciation	3.750	7.219	6.677	6.177	5.713	5.285	4.888	4.522	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462
Reserve	3.750	10.969	17.646	23.823	29.536	34.821	39.709	44.231	48.693	53.154	57.616	62.077	66.539	71.000	75.462	79.923	84.385	88.846	93.308
Rate	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462
Incentive	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Gen Functional Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
EDPL																			
Life	-																		
Method	MACRS																		
Factor	-																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTP																			
Life	15																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	0.7547																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-
Annual Depreciation	5.000	9.500	8.550	7.695	6.926	6.233	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	2.952	-	-	-
Reserve	5.000	14.500	23.050	30.745	37.671	43.903	49.808	55.713	61.618	67.523	73.428	79.333	85.238	91.143	97.048	100.000	100.000	100.000	100.000
Rate	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
Incentive	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
GTE																			
Life	15																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-
Annual Depreciation	5.000	9.500	8.550	7.695	6.926	6.233	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	2.952	-	-	-
Reserve	5.000	14.500	23.050	30.745	37.671	43.903	49.808	55.713	61.618	67.523	73.428	79.333	85.238	91.143	97.048	100.000	100.000	100.000	100.000
Rate	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
Incentive	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
GUS																			
Life	15																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-
Annual Depreciation	5.000	9.500	8.550	7.695	6.926	6.233	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	2.952	-	-	-
Reserve	5.000	14.500	23.050	30.745	37.671	43.903	49.808	55.713	61.618	67.523	73.428	79.333	85.238	91.143	97.048	100.000	100.000	100.000	100.000
Rate	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
Incentive	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
GTPL																			
Life	-																		
Method	MACRS																		
Factor	-																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTS																			
Life	15																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-
Annual Depreciation	5.000	9.500	8.550	7.695	6.926	6.233	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	5.905	2.952	-	-	-
Reserve	5.000	14.500	23.050	30.745	37.671	43.903	49.808	55.713	61.618	67.523	73.428	79.333	85.238	91.143	97.048	100.000	100.000	100.000	100.000
Rate	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
Incentive	0.05000	0.09500	0.08550	0.07695	0.06926	0.06233	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.05905	0.02952	0.00000	0.00000	0.00000
EHP																			
Life	20																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	0.7171																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50
Annual Depreciation	3.750	7.219	6.677	6.177	5.713	5.285	4.888	4.522	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462
Reserve	3.750	10.969	17.646	23.823	29.536	34.821	39.709	44.231	48.693	53.154	57.616	62.077	66.539	71.000	75.462	79.923	84.385	88.846	93.308
Rate	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462
Incentive	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462
EOPE																			
Life	7																		
Method	MACRS																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	14.286	24.490	17.493	12.495	8.925	8.925	8.925	4.462	-	-	-	-	-	-	-	-	-	-	-
Reserve	14.286	38.776	56.268	68.763	77.688	86.613	95.538	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.14286	0.24490	0.17493	0.12495	0.08925	0.08925	0.08925	0.04462	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ESFG																			
Life	20																		
Method	MACRS																		
Factor	1.5																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50
Annual Depreciation	3.750	7.219	6.677	6.177	5.713	5.285	4.888	4.522	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462
Reserve	3.750	10.969	17.646	23.823	29.536	34.821	39.709	44.231	48.693	53.154	57.616	62.077	66.539	71.000	75.462	79.923	84.385	88.846	93.308
Rate	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462
Incentive	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Gen Functional Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
EPV																			
Life	5																		
Method	MACRS																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	20.000	32.000	19.200	11.520	11.520	5.760	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	20.000	52.000	71.200	82.720	94.240	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.20000	0.32000	0.19200	0.11520	0.11520	0.05760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																			
EDP																			
Life	30																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	0.7226																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	30.50	29.50	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50
Annual Depreciation	3.333	6.444	6.115	5.900	5.686	5.471	5.257	5.042	4.828	4.613	4.398	4.184	3.969	3.755	3.540	3.326	3.111	2.897	2.682
Reserve	3.333	9.778	15.893	21.793	27.479	32.950	38.207	43.249	48.077	52.690	57.088	61.272	65.241	68.996	72.536	75.862	78.973	81.870	84.552
Rate	0.03333	0.06444	0.06115	0.05900	0.05686	0.05471	0.05257	0.05042	0.04828	0.04613	0.04398	0.04184	0.03969	0.03755	0.03540	0.03326	0.03111	0.02897	0.02682
GDP																			
Life	35																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	0.4733																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	35.50	34.50	33.50	32.50	31.50	30.50	29.50	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50
Annual Depreciation	2.857	5.551	5.309	5.150	4.992	4.833	4.675	4.516	4.358	4.199	4.041	3.882	3.724	3.565	3.407	3.248	3.090	2.932	2.773
Reserve	2.857	8.408	13.717	18.867	23.858	28.691	33.366	37.882	42.240	46.439	50.480	54.363	58.086	61.652	65.059	68.307	71.397	74.329	77.102
Rate	0.02857	0.05551	0.05309	0.05150	0.04992	0.04833	0.04675	0.04516	0.04358	0.04199	0.04041	0.03882	0.03724	0.03565	0.03407	0.03248	0.03090	0.02932	0.02773
EDPL																			
Life	-																		
Method	ADR SL																		
Factor	-																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTP																			
Life	22																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	0.7547																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50
Annual Depreciation	4.545	8.678	8.068	7.674	7.281	6.887	6.494	6.100	5.706	5.313	4.919	4.526	4.132	3.739	3.345	2.952	2.558	2.165	1.771
Reserve	4.545	13.223	21.291	28.965	36.246	43.133	49.626	55.726	61.433	66.745	71.665	76.190	80.323	84.061	87.407	90.358	92.916	95.081	96.852
Rate	0.04545	0.08678	0.08068	0.07674	0.07281	0.06887	0.06494	0.06100	0.05706	0.05313	0.04919	0.04526	0.04132	0.03739	0.03345	0.02952	0.02558	0.02165	0.01771
GTE																			
Life	22																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50
Annual Depreciation	4.545	8.678	8.068	7.674	7.281	6.887	6.494	6.100	5.706	5.313	4.919	4.526	4.132	3.739	3.345	2.952	2.558	2.165	1.771
Reserve	4.545	13.223	21.291	28.965	36.246	43.133	49.626	55.726	61.433	66.745	71.665	76.190	80.323	84.061	87.407	90.358	92.916	95.081	96.852
Rate	0.04545	0.08678	0.08068	0.07674	0.07281	0.06887	0.06494	0.06100	0.05706	0.05313	0.04919	0.04526	0.04132	0.03739	0.03345	0.02952	0.02558	0.02165	0.01771

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Gen Functional Plant
Model Inputs ($)

	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29
GUS																			
Life	22																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50
Annual Depreciation	4.545	8.678	8.068	7.674	7.281	6.887	6.494	6.100	5.706	5.313	4.919	4.526	4.132	3.739	3.345	2.952	2.558	2.165	1.771
Reserve	4.545	13.223	21.291	28.965	36.246	43.133	49.626	55.726	61.433	66.745	71.665	76.190	80.323	84.061	87.407	90.358	92.916	95.081	96.852
Rate	0.04545	0.08678	0.08068	0.07674	0.07281	0.06887	0.06494	0.06100	0.05706	0.05313	0.04919	0.04526	0.04132	0.03739	0.03345	0.02952	0.02558	0.02165	0.01771
GTPL																			
Life	-																		
Method	0																		
Factor	-																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTS																			
Life	22																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50
Annual Depreciation	4.545	8.678	8.068	7.674	7.281	6.887	6.494	6.100	5.706	5.313	4.919	4.526	4.132	3.739	3.345	2.952	2.558	2.165	1.771
Reserve	4.545	13.223	21.291	28.965	36.246	43.133	49.626	55.726	61.433	66.745	71.665	76.190	80.323	84.061	87.407	90.358	92.916	95.081	96.852
Rate	0.04545	0.08678	0.08068	0.07674	0.07281	0.06887	0.06494	0.06100	0.05706	0.05313	0.04919	0.04526	0.04132	0.03739	0.03345	0.02952	0.02558	0.02165	0.01771
EHP																			
Life	50																		
Method	ADR_SYD																		
Factor	2.0																		
Basis Adjustment	0.7171																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	50.50	49.50	48.50	47.50	46.50	45.50	44.50	43.50	42.50	41.50	40.50	39.50	38.50	37.50	36.50	35.50	34.50	33.50	32.50
Annual Depreciation	2.000	3.920	3.801	3.722	3.644	3.566	3.487	3.409	3.331	3.252	3.174	3.096	3.017	2.939	2.860	2.782	2.704	2.625	2.547
Reserve	2.000	5.920	9.721	13.443	17.087	20.653	24.140	27.549	30.880	34.132	37.306	40.402	43.419	46.358	49.218	52.000	54.704	57.329	59.876
Rate	0.02000	0.03920	0.03801	0.03722	0.03644	0.03566	0.03487	0.03409	0.03331	0.03252	0.03174	0.03096	0.03017	0.02939	0.02860	0.02782	0.02704	0.02625	0.02547
EOPE																			
Life	12																		
Method	ADR SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-
Annual Depreciation	8.333	15.278	13.258	11.995	10.732	9.470	8.207	6.944	5.682	4.419	3.157	1.894	0.631	-	-	-	-	-	-
Reserve	8.333	23.611	36.869	48.864	59.596	69.066	77.273	84.217	89.899	94.318	97.475	99.369	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.08333	0.15278	0.13258	0.11995	0.10732	0.09470	0.08207	0.06944	0.05682	0.04419	0.03157	0.01894	0.00631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ESFG																			
Life	28																		
Method	ADR SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50
Annual Depreciation	3.571	6.888	6.510	6.264	6.019	5.773	5.527	5.282	5.036	4.790	4.545	4.299	4.053	3.808	3.562	3.316	3.071	2.825	2.579
Reserve	3.571	10.459	16.969	23.233	29.252	35.025	40.552	45.833	50.869	55.659	60.204	64.503	68.556	72.364	75.926	79.242	82.313	85.138	87.717
Rate	0.03571	0.06888	0.06510	0.06264	0.06019	0.05773	0.05527	0.05282	0.05036	0.04790	0.04545	0.04299	0.04053	0.03808	0.03562	0.03316	0.03071	0.02825	0.02579
EPV																			
Life	12																		
Method	ADR SYD																		
Factor	2.0																		
Basis Adjustment	1.0000																		
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Remaining Life	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-
Annual Depreciation	8.333	15.278	13.258	11.995	10.732	9.470	8.207	6.944	5.682	4.419	3.157	1.894	0.631	-	-	-	-	-	-
Reserve	8.333	23.611	36.869	48.864	59.596	69.066	77.273	84.217	89.899	94.318	97.475	99.369	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.08333	0.15278	0.13258	0.11995	0.10732	0.09470	0.08207	0.06944	0.05682	0.04419	0.03157	0.01894	0.00631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

		Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31
Analysis Period																									
Analysis Life																									
Sensitivity																									
Jurisdiction																									
Fixed Costs																									
Variable Costs																									
Plant Investment (Nominal)																									
Gross Plant Additions																									
C	EDP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,008,075	20,008,075	20,008,075	20,008,075	20,008,075	20,008,075
C	GDP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,957,249	4,957,249	4,957,249	4,957,249	4,957,249	4,957,249
C	EDPL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,897	18,897	18,897	18,897	18,897	18,897
C	GTP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,659,577	2,659,577	2,659,577	2,659,577	2,659,577	2,659,577
C	GTE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	114,508	114,508	114,508	114,508	114,508	114,508
C	GUS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	608,603	608,603	608,603	608,603	608,603	608,603
C	GTPL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	664	664	664	664	664	664
G	GTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,158	1,158	1,158	1,158	1,158	1,158
G	EHP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,733,172	2,733,172	2,733,172	2,733,172	2,733,172	2,733,172
	EOPE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,630	120,630	120,630	120,630	120,630	120,630
	ESFG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97,294	97,294	97,294	97,294	97,294	97,294
	EPV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,683	10,683	10,683	10,683	10,683	10,683
Book Capitalization																									
Depreciation - Factors																									
	EDP																								
	GDP																								
	EDPL																								
	GTP																								
	GTE																								
	GUS																								
	GTPL																								
	GTS																								
	EHP																								
	EOPE																								
	ESFG																								
	EPV																								
Taxes																									
Property Tax Rate		1.572%												1.572%											
Property Tax Amount ($)																									
Business and Other Taxes																									
Payroll (Percent of Labor)																									
State Tax Rate																									
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																									
Composite Federal & State																									
Federal Tax Depreciation - Factors																									
	EDP																								
	GDP																								
	EDPL																								
	GTP																								
	GTE																								
	GUS																								
	GTPL																								
	GTS																								
	EHP																								
	EOPE																								
	ESFG																								
	EPV																								
	Investment X																								

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31
State Tax Depreciation - Factors																								
EDP																								
GDP																								
EDPL																								
GTP																								
GTE																								
GUS																								
GTPL																								
GTS																								
EHP																								
EOPE																								
ESFG																								
EPV																								
Investment X																								
Repair Allowance																								
Federal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921
Capital Structure (%)																								
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																								
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																								
Monthly Rate	07-29	08-29	09-29	10-29	11-29	12-29	01-30	02-30	03-30	04-30	05-30	06-30	07-30	08-30	09-30	10-30	11-30	12-30	01-31	02-31	03-31	04-31	05-31	06-31
2 EDP	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
3 GDP	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
4 EDPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5 GTP	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
6 GTE	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
7 GUS	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
8 GTPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 GTS	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
10 EHP	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
11 EOPE	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
12 ESFG	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
13 EPV	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%
14 Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15 Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16 Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Tax Depreciation Rates																								
EDP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	4.462	2.231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	97.769	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GDP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	4.462	2.231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	97.769	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31
EDPL																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTE																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GUS																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTPL																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTS																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EHP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	4.462	2.231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	97.769	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EOPE																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ESFG																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	4.462	2.231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	97.769	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.04462	0.02231	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31
EPV																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																								
EDP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	2.467	2.253	2.038	1.824	1.609	1.395	1.180	0.966	0.751	0.536	0.322	0.107	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	87.019	89.272	91.310	93.134	94.743	96.138	97.318	98.284	99.034	99.571	99.893	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.02467	0.02253	0.02038	0.01824	0.01609	0.01395	0.01180	0.00966	0.00751	0.00536	0.00322	0.00107	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GDP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-
Annual Depreciation	2.615	2.456	2.298	2.139	1.981	1.822	1.664	1.505	1.347	1.188	1.030	0.872	0.713	0.555	0.396	0.238	0.079	-	-	-	-	-	-	-
Reserve	79.717	82.173	84.471	86.610	88.591	90.413	92.077	93.582	94.929	96.118	97.148	98.019	98.732	99.287	99.683	99.921	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.02615	0.02456	0.02298	0.02139	0.01981	0.01822	0.01664	0.01505	0.01347	0.01188	0.01030	0.00872	0.00713	0.00555	0.00396	0.00238	0.00079	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EDPL																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	1.377	0.984	0.590	0.197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	98.229	99.213	99.803	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.01377	0.00984	0.00590	0.00197	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTE																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	1.377	0.984	0.590	0.197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	98.229	99.213	99.803	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.01377	0.00984	0.00590	0.00197	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31
GUS																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	1.377	0.984	0.590	0.197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	98.229	99.213	99.803	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.01377	0.00984	0.00590	0.00197	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTPL																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTS																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	1.377	0.984	0.590	0.197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	98.229	99.213	99.803	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.01377	0.00984	0.00590	0.00197	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EHP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	31.50	30.50	29.50	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50
Annual Depreciation	2.469	2.390	2.312	2.233	2.155	2.077	1.998	1.920	1.842	1.763	1.685	1.607	1.528	1.450	1.371	1.293	1.215	1.136	1.058	0.980	0.901	0.823	0.744	0.666
Reserve	62.344	64.735	67.047	69.280	71.435	73.512	75.510	77.430	79.272	81.035	82.720	84.327	85.855	87.304	88.676	89.969	91.184	92.320	93.378	94.358	95.259	96.082	96.826	97.492
Rate	0.02469	0.02390	0.02312	0.02233	0.02155	0.02077	0.01998	0.01920	0.01842	0.01763	0.01685	0.01607	0.01528	0.01450	0.01371	0.01293	0.01215	0.01136	0.01058	0.00980	0.00901	0.00823	0.00744	0.00666
EOPE																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ESFG																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	2.334	2.088	1.842	1.597	1.351	1.105	0.860	0.614	0.368	0.123	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	90.051	92.139	93.981	95.578	96.929	98.035	98.895	99.509	99.877	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.02334	0.02088	0.01842	0.01597	0.01351	0.01105	0.00860	0.00614	0.00368	0.00123	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EPV																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

		Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33
Analysis Period																								
Analysis Life																								
Sensitivity																								
Jurisdiction																								
Fixed Costs																								
Variable Costs																								
Plant Investment (Nominal)																								
Gross Plant Additions																								
C	EDP	20,008,075	20,008,075	20,008,075	20,008,075	20,008,075	20,008,075	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	32,484,498	34,967,798	34,967,798	34,967,798	34,967,798	34,967,798
C	GDP	4,957,249	4,957,249	4,957,249	4,957,249	4,957,249	4,957,249	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,139,605	8,882,811	8,882,811	8,882,811	8,882,811	8,882,811
C	EDPL	18,897	18,897	18,897	18,897	18,897	18,897	30,027	30,027	30,027	30,027	30,027	30,027	30,027	30,027	30,027	30,027	30,027	30,027	31,877	31,877	31,877	31,877	31,877
C	GTP	2,659,577	2,659,577	2,659,577	2,659,577	2,659,577	2,659,577	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,367,916	4,768,768	4,768,768	4,768,768	4,768,768	4,768,768
C	GTE	114,508	114,508	114,508	114,508	114,508	114,508	188,061	188,061	188,061	188,061	188,061	188,061	188,061	188,061	188,061	188,061	188,061	188,061	205,320	205,320	205,320	205,320	205,320
C	GUS	608,603	608,603	608,603	608,603	608,603	608,603	999,530	999,530	999,530	999,530	999,530	999,530	999,530	999,530	999,530	999,530	999,530	999,530	1,091,259	1,091,259	1,091,259	1,091,259	1,091,259
C	GTPL	664	664	664	664	664	664	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,191	1,191	1,191	1,191	1,191
G	GTS	1,158	1,158	1,158	1,158	1,158	1,158	1,902	1,902	1,902	1,902	1,902	1,902	1,902	1,902	1,902	1,902	1,902	1,902	2,077	2,077	2,077	2,077	2,077
G	EHP	2,733,172	2,733,172	2,733,172	2,733,172	2,733,172	2,733,172	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,821,079	2,362,360	2,362,360	2,362,360	2,362,360	2,362,360
	EOPE	120,630	120,630	120,630	120,630	120,630	120,630	124,509	124,509	124,509	124,509	124,509	124,509	124,509	124,509	124,509	124,509	124,509	124,509	104,264	104,264	104,264	104,264	104,264
	ESFG	97,294	97,294	97,294	97,294	97,294	97,294	100,423	100,423	100,423	100,423	100,423	100,423	100,423	100,423	100,423	100,423	100,423	100,423	84,094	84,094	84,094	84,094	84,094
	EPV	10,683	10,683	10,683	10,683	10,683	10,683	11,027	11,027	11,027	11,027	11,027	11,027	11,027	11,027	11,027	11,027	11,027	11,027	9,234	9,234	9,234	9,234	9,234
Book Capitalization																								
Depreciation - Factors																								
	EDP																							
	GDP																							
	EDPL																							
	GTP																							
	GTE																							
	GUS																							
	GTPL																							
	GTS																							
	EHP																							
	EOPE																							
	ESFG																							
	EPV																							
Taxes																								
Property Tax Rate		1.572%												1.572%										
Property Tax Amount ($)																								
Business and Other Taxes																								
Payroll (Percent of Labor)																								
State Tax Rate																								
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																								
Composite Federal & State																								
Federal Tax Depreciation - Factors																								
	EDP																							
	GDP																							
	EDPL																							
	GTP																							
	GTE																							
	GUS																							
	GTPL																							
	GTS																							
	EHP																							
	EOPE																							
	ESFG																							
	EPV																							
Investment X																								

Revenue Requirements Estimation Model

ERP And GIS Transformation Benefits RO model - ED, Gas and Ge

Model Inputs ($)

	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33
State Tax Depreciation - Factors																							
EDP																							
GDP																							
EDPL																							
GTP																							
GTE																							
GUS																							
GTPL																							
GTS																							
EHP																							
EOPE																							
ESFG																							
EPV																							
Investment X																							
Repair Allowance																							
Federal	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959
State	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921	9,586,921	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	15,168,056	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959
Capital Structure (%)																							
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																							
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																							
Monthly Rate	07-31	08-31	09-31	10-31	11-31	12-31	01-32	02-32	03-32	04-32	05-32	06-32	07-32	08-32	09-32	10-32	11-32	12-32	01-33	02-33	03-33	04-33	05-33
2 EDP	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
3 GDP	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
4 EDPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5 GTP	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
6 GTE	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
7 GUS	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
8 GTPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 GTS	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
10 EHP	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
11 EOPE	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
12 ESFG	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
13 EPV	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%
14 Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15 Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16 Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Tax Depreciation Rates																							
EDP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GDP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33
EDPL																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTE																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GUS																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTPL																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTS																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EHP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EOPE																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ESFG																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33
EPV																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																							
EDP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GDP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EDPL																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTE																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33
GUS																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTPL																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
GTS																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EHP																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	0.588	0.509	0.431	0.353	0.274	0.196	0.118	0.039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	98.080	98.589	99.020	99.373	99.647	99.843	99.961	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00588	0.00509	0.00431	0.00353	0.00274	0.00196	0.00118	0.00039	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EOPE																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ESFG																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EPV																							
Life																							
Method																							
Factor																							
Basis Adjustment																							
Year	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge

Model Inputs ($)		Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35
Analysis Period																												
Analysis Life																												
Sensitivity																												
Jurisdiction																												
Fixed Costs																												
Variable Costs																												
Plant Investment (Nominal)																												
Gross Plant Additions																												
C	EDP	34,967,798	34,967,798	34,967,798	34,967,798	34,967,798	34,967,798	34,967,798	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	35,802,215	25,647,441	25,647,441	25,647,441	25,647,441	25,647,441	25,647,441	25,647,441	25,647,441	25,647,441
C	GDP	8,882,811	8,882,811	8,882,811	8,882,811	8,882,811	8,882,811	8,882,811	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	9,105,530	6,649,924	6,649,924	6,649,924	6,649,924	6,649,924	6,649,924	6,649,924	6,649,924	6,649,924
C	EDPL	31,877	31,877	31,877	31,877	31,877	31,877	31,877	32,596	32,596	32,596	32,596	32,596	32,596	32,596	32,596	32,596	32,596	32,596	32,596	18,882	18,882	18,882	18,882	18,882	18,882	18,882	18,882	18,882
C	GTP	4,768,768	4,768,768	4,768,768	4,768,768	4,768,768	4,768,768	4,768,768	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	4,888,517	3,561,726	3,561,726	3,561,726	3,561,726	3,561,726	3,561,726	3,561,726	3,561,726	3,561,726
C	GTE	205,320	205,320	205,320	205,320	205,320	205,320	205,320	210,475	210,475	210,475	210,475	210,475	210,475	210,475	210,475	210,475	210,475	210,475	210,475	153,350	153,350	153,350	153,350	153,350	153,350	153,350	153,350	153,350
C	GUS	1,091,259	1,091,259	1,091,259	1,091,259	1,091,259	1,091,259	1,091,259	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	1,118,662	815,046	815,046	815,046	815,046	815,046	815,046	815,046	815,046	815,046
C	GTPL	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,221	1,221	1,221	1,221	1,221	1,221	1,221	1,221	1,221	1,221	1,221	1,221	890	890	890	890	890	890	890	890	890
G	GTS	2,077	2,077	2,077	2,077	2,077	2,077	2,077	2,129	2,129	2,129	2,129	2,129	2,129	2,129	2,129	2,129	2,129	2,129	2,129	1,551	1,551	1,551	1,551	1,551	1,551	1,551	1,551	1,551
G	EHP	2,362,360	2,362,360	2,362,360	2,362,360	2,362,360	2,362,360	2,362,360	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,637,646	1,670,563	1,670,563	1,670,563	1,670,563	1,670,563	1,670,563	1,670,563	1,670,563	1,670,563
	EOPE	104,264	104,264	104,264	104,264	104,264	104,264	104,264	72,278	72,278	72,278	72,278	72,278	72,278	72,278	72,278	72,278	72,278	72,278	72,278	73,731	73,731	73,731	73,731	73,731	73,731	73,731	73,731	73,731
	ESFG	84,094	84,094	84,094	84,094	84,094	84,094	84,094	58,296	58,296	58,296	58,296	58,296	58,296	58,296	58,296	58,296	58,296	58,296	58,296	59,468	59,468	59,468	59,468	59,468	59,468	59,468	59,468	59,468
	EPV	9,234	9,234	9,234	9,234	9,234	9,234	9,234	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,530	6,530	6,530	6,530	6,530	6,530	6,530	6,530	6,530
Book Capitalization																												
Depreciation - Factors																												
	EDP																											
	GDP																											
	EDPL																											
	GTP																											
	GTE																											
	GUS																											
	GTPL																											
	GTS																											
	EHP																											
	EOPE																											
	ESFG																											
	EPV																											
Taxes																												
Property Tax Rate			1.572%												1.572%												1.572%		
Property Tax Amount ($)																												
Business and Other Taxes																												
Payroll (Percent of Labor)																												
State Tax Rate																												
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																												
Composite Federal & State																												
Federal Tax Depreciation - Factors																												
	EDP																											
	GDP																											
	EDPL																											
	GTP																											
	GTE																											
	GUS																											
	GTPL																											
	GTS																											
	EHP																											
	EOPE																											
	ESFG																											
	EPV																											
	Investment X																											

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35
State Tax Depreciation - Factors																												
EDP																												
GDP																												
EDPL																												
GTP																												
GTE																												
GUS																												
GTPL																												
GTS																												
EHP																												
EOPE																												
ESFG																												
EPV																												
Investment X																												
Repair Allowance																												
Federal	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573
State	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959	16,216,959	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	16,390,115	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573	11,963,573
Capital Structure (%)																												
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																												
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Book Depreciation Rates

		06-33	07-33	08-33	09-33	10-33	11-33	12-33	01-34	02-34	03-34	04-34	05-34	06-34	07-34	08-34	09-34	10-34	11-34	12-34	01-35	02-35	03-35	04-35	05-35	06-35	07-35	08-35	09-35
	Monthly Rate																												
2	EDP	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
3	GDP	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
4	EDPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	GTP	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
6	GTE	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
7	GUS	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
8	GTPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	GTS	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
10	EHP	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
11	EOPE	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
12	ESFG	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
13	EPV	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%
14	Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Federal Tax Depreciation Rates

EDP					
Life					
Method					
Factor					
Basis Adjustment					
Year	67	68	69	70	
Remaining Life	-	-	-	-	
Annual Depreciation	-	-	-	-	
Reserve	100.000	100.000	100.000	100.000	
Rate	0.00000	0.00000	0.00000	0.00000	
Incentive	0.00000	0.00000	0.00000	0.00000	

GDP				
Life				
Method				
Factor				
Basis Adjustment				
Year	67	68	69	70
Remaining Life	-	-	-	-
Annual Depreciation	-	-	-	-
Reserve	100.000	100.000	100.000	100.000
Rate	0.00000	0.00000	0.00000	0.00000
Incentive	0.00000	0.00000	0.00000	0.00000

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35
EDPL																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	-	-	-	-																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
GTP																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
GTE																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
GUS																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
GTPL																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	-	-	-	-																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
GTS																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
EHP																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
EOPE																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
ESFG																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35
EPV																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
Incentive	0.00000	0.00000	0.00000	0.00000																								
State Tax Depreciation Rates																												
EDP																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
GDP																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
EDPL																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	-	-	-	-																								
Rate	0.00000	0.00000	0.00000	0.00000																								
GTP																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
GTE																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35	Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35
GUS																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
GTPL																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	-	-	-	-																								
Rate	0.00000	0.00000	0.00000	0.00000																								
GTS																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
EHP																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
EOPE																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
ESFG																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								
EPV																												
Life																												
Method																												
Factor																												
Basis Adjustment																												
Year	67	68	69	70																								
Remaining Life	-	-	-	-																								
Annual Depreciation	-	-	-	-																								
Reserve	100.000	100.000	100.000	100.000																								
Rate	0.00000	0.00000	0.00000	0.00000																								

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Model Inputs ($)

		Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
Analysis Period																									
Analysis Life																									
Sensitivity																									
Jurisdiction																									
Fixed Costs																									
Variable Costs																									
Plant Investment (Nominal)																									
Gross Plant Additions																									
C	EDP	25,647,441	25,647,441	25,647,441	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,467,499	22,921,343	22,921,343	22,921,343	22,921,343	22,921,343	22,921,343	22,921,343	22,921,343	22,921,343
C	GDP	6,649,924	6,649,924	6,649,924	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	5,886,944	6,005,860	6,005,860	6,005,860	6,005,860	6,005,860	6,005,860	6,005,860	6,005,860	6,005,860
C	EDPL	18,882	18,882	18,882	14,377	14,377	14,377	14,377	14,377	14,377	14,377	14,377	14,377	14,377	14,377	14,377	14,667	14,667	14,667	14,667	14,667	14,667	14,667	14,667	14,667
C	GTP	3,561,726	3,561,726	3,561,726	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,149,061	3,212,672	3,212,672	3,212,672	3,212,672	3,212,672	3,212,672	3,212,672	3,212,672	3,212,672
C	GTE	153,350	153,350	153,350	135,583	135,583	135,583	135,583	135,583	135,583	135,583	135,583	135,583	135,583	135,583	135,583	138,322	138,322	138,322	138,322	138,322	138,322	138,322	138,322	138,322
C	GUS	815,046	815,046	815,046	720,614	720,614	720,614	720,614	720,614	720,614	720,614	720,614	720,614	720,614	720,614	720,614	735,170	735,170	735,170	735,170	735,170	735,170	735,170	735,170	735,170
C	GTPL	890	890	890	787	787	787	787	787	787	787	787	787	787	787	787	803	803	803	803	803	803	803	803	803
G	GTS	1,551	1,551	1,551	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,399	1,399	1,399	1,399	1,399	1,399	1,399	1,399	1,399
G	EHP	1,670,563	1,670,563	1,670,563	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,704,308	1,738,735	1,738,735	1,738,735	1,738,735	1,738,735	1,738,735	1,738,735	1,738,735	1,738,735
	EOPE	73,731	73,731	73,731	75,220	75,220	75,220	75,220	75,220	75,220	75,220	75,220	75,220	75,220	75,220	75,220	76,740	76,740	76,740	76,740	76,740	76,740	76,740	76,740	76,740
	ESFG	59,468	59,468	59,468	60,669	60,669	60,669	60,669	60,669	60,669	60,669	60,669	60,669	60,669	60,669	60,669	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895
	EPV	6,530	6,530	6,530	6,662	6,662	6,662	6,662	6,662	6,662	6,662	6,662	6,662	6,662	6,662	6,662	6,796	6,796	6,796	6,796	6,796	6,796	6,796	6,796	6,796
Book Capitalization																									
Depreciation - Factors																									
	EDP																								
	GDP																								
	EDPL																								
	GTP																								
	GTE																								
	GUS																								
	GTPL																								
	GTS																								
	EHP																								
	EOPE																								
	ESFG																								
	EPV																								
Taxes																									
Property Tax Rate											1.572%												1.572%		
Property Tax Amount ($)																									
Business and Other Taxes																									
Payroll (Percent of Labor)																									
State Tax Rate																									
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																									
Composite Federal & State																									
Federal Tax Depreciation - Factors																									
	EDP																								
	GDP																								
	EDPL																								
	GTP																								
	GTE																								
	GUS																								
	GTPL																								
	GTS																								
	EHP																								
	EOPE																								
	ESFG																								
	EPV																								
Investment X																									

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	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
State Tax Depreciation - Factors																								
EDP																								
GDP																								
EDPL																								
GTP																								
GTE																								
GUS																								
GTPL																								
GTS																								
EHP																								
EOPE																								
ESFG																								
EPV																								
Investment X																								
Repair Allowance																								
Federal	11,963,573	11,963,573	11,963,573	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761
State	11,963,573	11,963,573	11,963,573	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,587,886	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761	10,801,761
Capital Structure (%)																								
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																								
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																								
Monthly Rate	10-35	11-35	12-35	01-36	02-36	03-36	04-36	05-36	06-36	07-36	08-36	09-36	10-36	11-36	12-36	01-37	02-37	03-37	04-37	05-37	06-37	07-37	08-37	09-37
2 EDP	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
3 GDP	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
4 EDPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5 GTP	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
6 GTE	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
7 GUS	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
8 GTPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 GTS	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
10 EHP	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
11 EOPE	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
12 ESFG	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
13 EPV	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%
14 Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15 Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16 Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Tax Depreciation Rates																								
EDP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year																								
Remaining Life																								
Annual Depreciation																								
Reserve																								
Rate																								
Incentive																								
GDP																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year																								
Remaining Life																								
Annual Depreciation																								
Reserve																								
Rate																								
Incentive																								

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Model Inputs ($)	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
EDPL																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
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ERP And GIS Transformation Benefits RO model - ED, Gas and Ge

Model Inputs ($)	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
EPV																								
Life																								
Method																								
Factor																								
Basis Adjustment																								
Year																								
Remaining Life																								
Annual Depreciation																								
Reserve																								
Rate																								
Incentive																								
State Tax Depreciation Rates																								
EDP																								
Life																								
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Factor																								
Basis Adjustment																								
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Remaining Life																								
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Revenue Requirements Estimation Model

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Model Inputs ($)	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
GUS																								
Life																								
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ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

		Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
Analysis Period																												
Analysis Life																												
Sensitivity																												
Jurisdiction																												
	Fixed Costs																											
	Variable Costs																											
Plant Investment (Nominal)																												
Gross Plant Additions																												
C	EDP	22,921,343	22,921,343	22,921,343	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,384,354	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904	23,557,904
C	GDP	6,005,860	6,005,860	6,005,860	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,127,178	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230	6,180,230
C	EDPL	14,667	14,667	14,667	14,964	14,964	14,964	14,964	14,964	14,964	14,964	14,964	14,964	14,964	14,964	14,964	14,858	14,858	14,858	14,858	14,858	14,858	14,858	14,858	14,858	14,858	14,858	14,858
C	GTP	3,212,672	3,212,672	3,212,672	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,277,568	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484	3,305,484
C	GTE	138,322	138,322	138,322	141,116	141,116	141,116	141,116	141,116	141,116	141,116	141,116	141,116	141,116	141,116	141,116	142,318	142,318	142,318	142,318	142,318	142,318	142,318	142,318	142,318	142,318	142,318	142,318
C	GUS	735,170	735,170	735,170	750,021	750,021	750,021	750,021	750,021	750,021	750,021	750,021	750,021	750,021	750,021	750,021	756,409	756,409	756,409	756,409	756,409	756,409	756,409	756,409	756,409	756,409	756,409	756,409
C	GTPL	803	803	803	819	819	819	819	819	819	819	819	819	819	819	819	826	826	826	826	826	826	826	826	826	826	826	826
G	GTS	1,399	1,399	1,399	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,439	1,439	1,439	1,439	1,439	1,439	1,439	1,439	1,439	1,439	1,439	1,439
G	EHP	1,738,735	1,738,735	1,738,735	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,773,858	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274	1,806,274
	EOPE	76,740	76,740	76,740	78,290	78,290	78,290	78,290	78,290	78,290	78,290	78,290	78,290	78,290	78,290	78,290	79,721	79,721	79,721	79,721	79,721	79,721	79,721	79,721	79,721	79,721	79,721	79,721
	ESFG	61,895	61,895	61,895	63,145	63,145	63,145	63,145	63,145	63,145	63,145	63,145	63,145	63,145	63,145	63,145	64,299	64,299	64,299	64,299	64,299	64,299	64,299	64,299	64,299	64,299	64,299	64,299
	EPV	6,796	6,796	6,796	6,934	6,934	6,934	6,934	6,934	6,934	6,934	6,934	6,934	6,934	6,934	6,934	7,060	7,060	7,060	7,060	7,060	7,060	7,060	7,060	7,060	7,060	7,060	7,060
Book Capitalization																												
Depreciation - Factors																												
	EDP																											
	GDP																											
	EDPL																											
	GTP																											
	GTE																											
	GUS																											
	GTPL																											
	GTS																											
	EHP																											
	EOPE																											
	ESFG																											
	EPV																											
Taxes																												
Property Tax Rate											1.572%												1.572%					
Property Tax Amount ($)																												
Business and Other Taxes																												
Payroll (Percent of Labor)																												
State Tax Rate																												
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																												
Composite Federal & State																												
Federal Tax Depreciation - Factors																												
	EDP																											
	GDP																											
	EDPL																											
	GTP																											
	GTE																											
	GUS																											
	GTPL																											
	GTS																											
	EHP																											
	EOPE																											
	ESFG																											
	EPV																											
	Investment X																											

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
State Tax Depreciation - Factors																											
EDP																											
GDP																											
EDPL																											
GTP																											
GTE																											
GUS																											
GTPL																											
GTS																											
EHP																											
EOPE																											
ESFG																											
EPV																											
Investment X																											
Repair Allowance																											
Federal	10,801,761	10,801,761	10,801,761	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060
State	10,801,761	10,801,761	10,801,761	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,019,957	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060	11,112,060
Capital Structure (%)																											
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																											
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
Book Depreciation Rates																											
Monthly Rate	10-37	11-37	12-37	01-38	02-38	03-38	04-38	05-38	06-38	07-38	08-38	09-38	10-38	11-38	12-38	01-39	02-39	03-39	04-39	05-39	06-39	07-39	08-39	09-39	10-39	11-39	12-39
2 EDP	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
3 GDP	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
4 EDPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5 GTP	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
6 GTE	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
7 GUS	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
8 GTPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 GTS	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
10 EHP	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
11 EOPE	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
12 ESFG	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
13 EPV	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%
14 Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15 Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16 Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Federal Tax Depreciation Rates

EDP
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

GDP
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - ED, Gas and Ge
Model Inputs ($)

	Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
EDPL																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
Incentive																											
GTP																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
Incentive																											
GTE																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
Incentive																											
GUS																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
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GTPL																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
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Method																											
Factor																											
Basis Adjustment																											
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Remaining Life																											
Annual Depreciation																											
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Incentive																											
EHP																											
Life																											
Method																											
Factor																											
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Year																											
Remaining Life																											
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EOPE																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
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Incentive																											
ESFG																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
Incentive																											

Revenue Requirements Estimation Model

ERP And GIS Transformation Benefits RO model - ED, Gas and Ge

Model Inputs ($)	Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
EPV																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
Incentive																											
State Tax Depreciation Rates																											
EDP																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
GDP																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
EDPL																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
GTP																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
GTE																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											

Revenue Requirements Estimation Model

ERP And GIS Transformation Benefits RO model - ED, Gas and Ge

Model Inputs ($)	Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
GUS																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
GTPL																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
GTS																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
EHP																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
EOPE																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
Reserve																											
Rate																											
ESFG																											
Life																											
Method																											
Factor																											
Basis Adjustment																											
Year																											
Remaining Life																											
Annual Depreciation																											
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Year																											
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Rate																											

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Functional Plant
Model Inputs ($)

		Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29
Analysis Period			**Jan-28 Through**	**Dec-70**																				
Analysis Life			43 Years																					
Sensitivity			0.01																					
Jurisdiction			FERC																					
Fixed Costs			1.000000																					
Variable Costs			1.000000																					
Plant Investment (Nominal)																								
Gross Plant Additions		**1,130,257,695**	**Input ====>**																					
C	ETP	1,130,240,980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	ETPL	16,715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Book Capitalization

Depreciation - Factors	Life	Salvage	Inpute Rate 1/1/2028	Inpute Rate	Inpute Rate	Sunk Investment (End of Base Year) Avg. Age	Initial Plant	Initial Reserve
ETP		0%	3.27%					
ETPL		0%						

Taxes

		Rate	Input ====>	Note: If use composite property tax rate, enter rate in cell E162, otherwise overwrite rate at each year in July column.																					
Property Tax Rate		1.571816%							1.572%													1.572%			
Property Tax Amount ($)																									
Business and Other Taxes		0.00%																							
Payroll (Percent of Labor)		0.00%																							
State Tax Rate		8.84%																							
Federal Tax Rate		21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)		Prior																							
Composite Federal & State		27.98%																							

Federal Tax Depreciation - Factors

	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Straight Line Basis	Normalization	Tax Repair %	Software FL %
ETP	20	MACRS	1.5	0.75082	-	75.08%	Normalized	24.92%	
ETPL				1.00000		100.00%	Normalized		

State Tax Depreciation - Factors

	Life	Method	Factor	Basis Adj.	Accumulated Deferred Tax	Normalization
ETP	30	ADR_SYD	2.0	0.75082		Flow-through
ETPL				1.00000		Flow-through

			Input ====>																						
Software Expense Adjustment		-																							
Deferred Investment Tax Credit																									
Removal Costs		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repair Allowance																									
Federal		281,634,657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
State		281,634,657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software Allowance																									
Federal		-																							
State		-																							

Factors

		Rate	Input ====>																						
Pension & Benefit		0.000%																							
F&U Revenue Factores																									
Uncollectibles (Avg. Rate)		Electric																							
Franchise		Electric																							
Tot aF&U expense factor		Electric																							
Revenue		-																							

Capital Structure (%)

Debt		47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity		52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost of Capital (%)

Debt		5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity		9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred		5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.		7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Functional Plant
Model Inputs ($)

		Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29
Book Depreciation Rates																								
	Monthly Rate	-	01-28	02-28	03-28	04-28	05-28	06-28	07-28	08-28	09-28	10-28	11-28	12-28	01-29	02-29	03-29	04-29	05-29	06-29	07-29	08-29	09-29	10-29
2	ETP	0.00%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
3	ETPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Tax Depreciation Rates																								
	ETP																							
	Life	20																						
	Method	MACRS																						
	Factor	1.5																						
	Basis Adjustment	0.7508																						
	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Remaining Life	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-
	Annual Depreciation	3.750	7.219	6.677	6.177	5.713	5.285	4.888	4.522	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	4.462	2.231	-	-
	Reserve	3.750	10.969	17.646	23.823	29.536	34.821	39.709	44.231	48.693	53.154	57.616	62.077	66.539	71.000	75.462	79.923	84.385	88.846	93.308	97.769	100.000	100.000	100.000
	Rate	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.02231	0.00000	0.00000
	Incentive	0.03750	0.07219	0.06677	0.06177	0.05713	0.05285	0.04888	0.04522	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.04462	0.02231	0.00000	0.00000
	ETPL																							
	Life	-																						
	Method	0																						
	Factor	-																						
	Basis Adjustment	1.0000																						
	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Remaining Life	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual Depreciation	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reserve	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																								
	ETP																							
	Life	30																						
	Method	ADR_SYD																						
	Factor	2.0																						
	Basis Adjustment	0.7508																						
	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Remaining Life	30.50	29.50	28.50	27.50	26.50	25.50	24.50	23.50	22.50	21.50	20.50	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50
	Annual Depreciation	3.333	6.444	6.115	5.900	5.686	5.471	5.257	5.042	4.828	4.613	4.398	4.184	3.969	3.755	3.540	3.326	3.111	2.897	2.682	2.467	2.253	2.038	1.824
	Reserve	3.333	9.778	15.893	21.793	27.479	32.950	38.207	43.249	48.077	52.690	57.088	61.272	65.241	68.996	72.536	75.862	78.973	81.870	84.552	87.019	89.272	91.310	93.134
	Rate	0.03333	0.06444	0.06115	0.05900	0.05686	0.05471	0.05257	0.05042	0.04828	0.04613	0.04398	0.04184	0.03969	0.03755	0.03540	0.03326	0.03111	0.02897	0.02682	0.02467	0.02253	0.02038	0.01824
	ETPL																							
	Life	-																						
	Method	0																						
	Factor	-																						
	Basis Adjustment	1.0000																						
	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Remaining Life	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual Depreciation	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reserve	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fu
Model Inputs ($)

	Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32
Analysis Period																																
Analysis Life																																
Sensitivity																																
Jurisdiction																																
Fixed Costs																																
Variable Costs																																
Plant Investment (Nominal)																																
Gross Plant Additions																																
C ETP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	7,784,949	12,673,255	12,673,255	12,673,255	12,673,255	12,673,255	12,673,255
C ETPL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	205	205	205	205	205	205	205	205	205	205	205	205	314	314	314	314	314	314
Book Capitalization																																
Depreciation - Factors																																
ETP																																
ETPL																																
Taxes																																
Property Tax Rate									1.572%												1.572%											
Property Tax Amount ($)																																
Business and Other Taxes																																
Payroll (Percent of Labor)																																
State Tax Rate																																
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																
Composite Federal & State																																
Federal Tax Depreciation - Factors																																
ETP																																
ETPL																																
State Tax Depreciation - Factors																																
ETP																																
ETPL																																
Software Expense Adjustment																																
Deferred Investment Tax Credit																																
Removal Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repair Allowance																																
Federal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935
State	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	1,939,862	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935
Software Allowance																																
Federal																																
State																																
Factors																																
Pension & Benefit																																
F&U Revenue Factores																																
Uncollectibles (Avg. Rate)																																
Franchise																																
Tot aF&U expense factor																																
Revenue																																
Capital Structure (%)																																
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fa
Model Inputs ($)

		Nov-29	Dec-29	Jan-30	Feb-30	Mar-30	Apr-30	May-30	Jun-30	Jul-30	Aug-30	Sep-30	Oct-30	Nov-30	Dec-30	Jan-31	Feb-31	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32
Book Depreciation Rates																																	
	Monthly Rate	11-29	12-29	01-30	02-30	03-30	04-30	05-30	06-30	07-30	08-30	09-30	10-30	11-30	12-30	01-31	02-31	03-31	04-31	05-31	06-31	07-31	08-31	09-31	10-31	11-31	12-31	01-32	02-32	03-32	04-32	05-32	06-32
2	ETP	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
3	ETPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Tax Depreciation Rates																																	
	ETP																																
	Life																																
	Method																																
	Factor																																
	Basis Adjustment																																
	Year	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
	Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
	Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	ETPL																																
	Life																																
	Method																																
	Factor																																
	Basis Adjustment																																
	Year	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
	Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
State Tax Depreciation Rates																																	
	ETP																																
	Life																																
	Method																																
	Factor																																
	Basis Adjustment																																
	Year	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
	Remaining Life	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual Depreciation	1.609	1.395	1.180	0.966	0.751	0.536	0.322	0.107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reserve	94.743	96.138	97.318	98.284	99.034	99.571	99.893	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
	Rate	0.01609	0.01395	0.01180	0.00966	0.00751	0.00536	0.00322	0.00107	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	ETPL																																
	Life																																
	Method																																
	Factor																																
	Basis Adjustment																																
	Year	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
	Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fi
Model Inputs ($)

	Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35
Analysis Period																															
Analysis Life																															
Sensitivity																															
Jurisdiction																															
Fixed Costs																															
Variable Costs																															
Plant Investment (Nominal)																															
Gross Plant Additions																															
C ETP	12,673,255	12,673,255	12,673,255	12,673,255	12,673,255	12,673,255	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	13,673,455	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	14,002,429	10,016,532
C ETPL	314	314	314	314	314	314	324	324	324	324	324	324	324	324	324	324	324	324	331	331	331	331	331	331	331	331	331	331	331	331	106
Book Capitalization																															
Depreciation - Factors																															
ETP																															
ETPL																															
Taxes																															
Property Tax Rate	1.572%												1.572%												1.572%						
Property Tax Amount ($)																															
Business and Other Taxes																															
Payroll (Percent of Labor)																															
State Tax Rate																															
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																															
Composite Federal & State																															
Federal Tax Depreciation - Factors																															
ETP																															
ETPL																															
State Tax Depreciation - Factors																															
ETP																															
ETPL																															
Software Expense Adjustment																															
Deferred Investment Tax Credit																															
Removal Costs	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair Allowance																															
Federal	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	2,495,930
State	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935	3,157,935	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,407,166	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	3,489,140	2,495,930
Software Allowance																															
Federal																															
State																															
Factors																															
Pension & Benefit																															
F&U Revenue Factores																															
Uncollectibles (Avg. Rate)																															
Franchise																															
Tot aF&U expense factor																															
Revenue																															
Capital Structure (%)																															
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																															
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fi
Model Inputs ($)

		Jul-32	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33	Dec-33	Jan-34	Feb-34	Mar-34	Apr-34	May-34	Jun-34	Jul-34	Aug-34	Sep-34	Oct-34	Nov-34	Dec-34	Jan-35
Book Depreciation Rates																																
	Monthly Rate	07-32	08-32	09-32	10-32	11-32	12-32	01-33	02-33	03-33	04-33	05-33	06-33	07-33	08-33	09-33	10-33	11-33	12-33	01-34	02-34	03-34	04-34	05-34	06-34	07-34	08-34	09-34	10-34	11-34	12-34	01-35
2	ETP	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
3	ETPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Federal Tax Depreciation Rates

ETP

Life																
Method																
Factor																
Basis Adjustment																
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

ETPL

Life																
Method																
Factor																
Basis Adjustment																
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Incentive	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

State Tax Depreciation Rates

ETP

Life																
Method																
Factor																
Basis Adjustment																
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reserve	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

ETPL

Life																
Method																
Factor																
Basis Adjustment																
Year	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
Remaining Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Annual Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rate	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fi
Model Inputs ($)

	Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
Analysis Period																																
Analysis Life																																
Sensitivity																																
Jurisdiction																																
Fixed Costs																																
Variable Costs																																
Plant Investment (Nominal)																																
Gross Plant Additions																																
C ETP	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	10,016,532	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,767,684	8,944,791	8,944,791	8,944,791	8,944,791	8,944,791	8,944,791	8,944,791	8,944,791	8,944,791
C ETPL	106	106	106	106	106	106	106	106	106	106	106	29	29	29	29	29	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30
Book Capitalization																																
Depreciation - Factors																																
ETP																																
ETPL																																
Taxes																																
Property Tax Rate						1.572%												1.572%												1.572%		
Property Tax Amount ($)																																
Business and Other Taxes																																
Payroll (Percent of Labor)																																
State Tax Rate																																
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																																
Composite Federal & State																																
Federal Tax Depreciation - Factors																																
ETP																																
ETPL																																
State Tax Depreciation - Factors																																
ETP																																
ETPL																																
Software Expense Adjustment																																
Deferred Investment Tax Credit																																
Removal Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair Allowance																																
Federal	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873
State	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,495,930	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,184,741	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873	2,228,873
Software Allowance																																
Federal																																
State																																
Factors																																
Pension & Benefit																																
F&U Revenue Factores																																
Uncollectibles (Avg. Rate)																																
Franchise																																
Tot aF&U expense factor																																
Revenue																																
Capital Structure (%)																																
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																																
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fu
Model Inputs ($)

		Feb-35	Mar-35	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	Jan-36	Feb-36	Mar-36	Apr-36	May-36	Jun-36	Jul-36	Aug-36	Sep-36	Oct-36	Nov-36	Dec-36	Jan-37	Feb-37	Mar-37	Apr-37	May-37	Jun-37	Jul-37	Aug-37	Sep-37
Book Depreciation Rates																																	
	Monthly Rate	02-35	03-35	04-35	05-35	06-35	07-35	08-35	09-35	10-35	11-35	12-35	01-36	02-36	03-36	04-36	05-36	06-36	07-36	08-36	09-36	10-36	11-36	12-36	01-37	02-37	03-37	04-37	05-37	06-37	07-37	08-37	09-37
2	ETP	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
3	ETPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Federal Tax Depreciation Rates

ETP
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

ETPL
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

State Tax Depreciation Rates

ETP
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate

ETPL
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate

Workpaper 4-13
Pacific Gas and Electric Company
Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fi
Model Inputs ($)

	Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
Analysis Period																											
Analysis Life																											
Sensitivity																											
Jurisdiction																											
Fixed Costs																											
Variable Costs																											
Plant Investment (Nominal)																											
Gross Plant Additions																											
C ETP	8,944,791	8,944,791	8,944,791	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,125,476	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177	9,198,177
C ETPL	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	24	24	24	24	24	24	24	24	24	24	24	24
Book Capitalization																											
Depreciation - Factors																											
ETP																											
ETPL																											
Taxes																											
Property Tax Rate										1.572%												1.572%					
Property Tax Amount ($)																											
Business and Other Taxes																											
Payroll (Percent of Labor)																											
State Tax Rate																											
Federal Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
CCFT Deduction ($000)																											
Composite Federal & State																											
Federal Tax Depreciation - Factors																											
ETP																											
ETPL																											
State Tax Depreciation - Factors																											
ETP																											
ETPL																											
Software Expense Adjustment																											
Deferred Investment Tax Credit																											
Removal Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair Allowance																											
Federal	2,228,873	2,228,873	2,228,873	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012
State	2,228,873	2,228,873	2,228,873	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,273,896	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012	2,292,012
Software Allowance																											
Federal																											
State																											
Factors																											
Pension & Benefit																											
F&U Revenue Factores																											
Uncollectibles (Avg. Rate)																											
Franchise																											
Tot aF&U expense factor																											
Revenue																											
Capital Structure (%)																											
Debt	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%	47.50%
Equity	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Preferred	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Capital (%)																											
Debt	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%	5.04%
Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Preferred	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Weighted Avg.	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%

Revenue Requirements Estimation Model
ERP And GIS Transformation Benefits RO model - FERC ETP Fi
Model Inputs ($)

		Oct-37	Nov-37	Dec-37	Jan-38	Feb-38	Mar-38	Apr-38	May-38	Jun-38	Jul-38	Aug-38	Sep-38	Oct-38	Nov-38	Dec-38	Jan-39	Feb-39	Mar-39	Apr-39	May-39	Jun-39	Jul-39	Aug-39	Sep-39	Oct-39	Nov-39	Dec-39
Book Depreciation Rates																												
	Monthly Rate	10-37	11-37	12-37	01-38	02-38	03-38	04-38	05-38	06-38	07-38	08-38	09-38	10-38	11-38	12-38	01-39	02-39	03-39	04-39	05-39	06-39	07-39	08-39	09-39	10-39	11-39	12-39
2	ETP	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
3	ETPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	Investment 13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	Investment 14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Investment X	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Federal Tax Depreciation Rates

ETP
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

ETPL
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate
Incentive

State Tax Depreciation Rates

ETP
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate

ETPL
Life
Method
Factor
Basis Adjustment
Year
Remaining Life
Annual Depreciation
Reserve
Rate

Workpaper 4-14
Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - Common and General Plant
Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
1	**Operating Revenue:**	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133
	Operating Expenses:					
2	Expense	-	-	-	-	-
3	Production	-	-	-	-	-
4	Storage	-	-	-	-	-
5	Transmission	-	-	-	-	-
6	Distribution	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-
8	Customer Services	-	-	-	-	-
9	Administrative and General	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-
	Taxes:					
13	Property	-	126,084	535,562	1,118,618	1,683,824
14	Payroll	-	-	-	-	-
15	Other Taxes	-	-	-	-	-
16	State Corporation Franchise	(22,012)	(119,606)	(214,857)	(41,609)	245,277
17	Federal Income	193,373	617,881	1,085,420	1,596,453	1,939,074
18	Subtotal Taxes	171,360	624,359	1,406,125	2,673,461	3,868,175
19	**Depreciation**	2,479,311	7,628,459	13,363,200	19,248,142	23,418,932
20	**Total Operating Expenses**	2,650,672	8,252,818	14,769,325	21,921,603	27,287,107
21	**Net for Return**	1,245,986	3,945,902	6,739,098	9,173,849	10,664,027
22	**Weighted Average Rate Base**	16,373,004	51,851,540	88,555,814	120,549,925	140,131,756
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%
24	On EZOity	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC allocation)					
	Fixed Costs					
25	CPUC	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133
26	FERC	-	-	-	-	-
27	Total	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133
	Variable Costs					
28	CPUC	-	-	-	-	-
29	FERC	-	-	-	-	-
30	Total	-	-	-	-	-
31	Total Company Capital Revenue Requirement	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133
32	**Capital Revenue Requirement**	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-

Pacific Gas and Electric Company
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Taxable Income:					
1	Operating Revenue	3,896,657	12,198,720	21,508,422	31,095,453	37,951,133
2	Less: O&M Expenses	-	-	-	-	-
4	Taxes Other Than Income	-	126,084	535,562	1,118,618	1,683,824
5	Interest Charges	391,315	1,239,252	2,116,484	2,881,143	3,349,149
6	Fiscal/Calendar Adjustment	-	126,084	283,394	299,662	265,544
7	Operating Expense Adjustment	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-
11	Subtotal Deductions	391,315	1,491,420	2,935,440	4,299,423	5,298,517
12	Taxable Income before Depreciation	3,505,342	10,707,300	18,572,982	26,796,030	32,652,616
	California Corporation Franchise Tax (CCFT)					
13	State Depreciation	3,647,958	11,897,742	20,835,352	27,095,216	29,823,232
14	Removal Costs	-	-	-	-	-
15	Repair Allowance	106,395	162,569	168,139	171,507	54,758
16	Software Deduction	-	-	-	-	-
17	State Taxable Income	(249,010)	(1,353,011)	(2,430,509)	(470,693)	2,774,627
18	CCFT	(22,012)	(119,606)	(214,857)	(41,609)	245,277
19	Deferred Taxes - Depreciation	-	-	-	-	-
20	Deferred Taxes - Interest					
21	Deferred Taxes - Vacation					
22	Deferred Taxes- Other					
23	Total CCFT	(22,012)	(119,606)	(214,857)	(41,609)	245,277
	Federal Income Tax					
24	Prior Year CCFT	0	(22,012)	(119,606)	(214,857)	(41,609)
25	Federal Depreciation	4,036,690	12,834,914	21,936,514	27,869,114	29,920,893
26	Removal Costs	-	-	-	-	-
27	Repair Allowance	106,395	162,569	168,139	171,507	54,758
28	Software Deduction	-	-	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-
31	Federal Taxable Income	(637,743)	(2,268,170)	(3,412,065)	(1,029,734)	2,718,574
32	Federal Income Tax	(133,926)	(476,316)	(716,534)	(216,244)	570,901
33	Deferred Taxes - Depreciation	327,299	1,094,197	1,801,954	1,812,697	1,368,173
34	Deferred Taxes - Interest	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-
37	Total Federal Income Tax	193,373	617,881	1,085,420	1,596,453	1,939,074

Pacific Gas and Electric Company
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Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Weighted Cost of Capital					
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	391,315	1,239,252	2,116,484	2,881,143	3,349,149
6	Preferred Stock	4,912	15,555	26,567	36,165	42,040
7	Common EZOity	849,759	2,691,095	4,596,047	6,256,541	7,272,838
8	Total $	1,245,986	3,945,902	6,739,098	9,173,849	10,664,027
	Weighted Average Rate Base					
9	Plant	17,282,766	58,396,083	107,021,288	157,115,195	199,995,379
	Working Capital					
10	Fuel	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-
12	Working Cash	-	-	-	-	-
13	Subtotal	-	-	-	-	-
14	Total Plant	17,282,766	58,396,083	107,021,288	157,115,195	199,995,379
	Less:					
15	Accumulated Deferred Taxes	48,890	717,169	2,157,796	3,961,731	5,496,569
16	Deferred Investment Tax Credit	-	-	-	-	-
17	Customer Advances	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-
21	Subtotal	48,890	717,169	2,157,796	3,961,731	5,496,569
22	Accumulated Depreciation	860,872	5,827,375	16,307,678	32,603,539	54,367,054
23	Weighted Average Rate Base	16,373,004	51,851,540	88,555,814	120,549,925	140,131,756

Workpaper 4-14
Pacific Gas and Electric Company
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Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
1	**Operating Revenue:**	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637
	Operating Expenses:							
2	Expense	-	-	-	-	-	-	-
3	Production	-	-	-	-	-	-	-
4	Storage	-	-	-	-	-	-	-
5	Transmission	-	-	-	-	-	-	-
6	Distribution	-	-	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-	-	-
8	Customer Services	-	-	-	-	-	-	-
9	Administrative and General	-	-	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-	-	-
	Taxes:							
13	Property	2,118,705	2,315,803	2,311,212	2,255,816	2,212,523	2,110,133	1,899,149
14	Payroll	-	-	-	-	-	-	-
15	Other Taxes	-	-	-	-	-	-	-
16	State Corporation Franchise	392,011	532,492	722,032	754,970	721,038	843,143	928,787
17	Federal Income	1,966,364	1,934,148	1,917,068	1,834,667	1,673,505	1,509,847	1,343,819
18	Subtotal Taxes	4,477,080	4,782,442	4,950,313	4,845,453	4,607,065	4,463,123	4,171,755
19	**Depreciation**	24,272,410	23,544,372	22,703,500	21,039,188	18,060,019	14,728,414	11,383,317
20	**Total Operating Expenses**	28,749,490	28,326,815	27,653,813	25,884,641	22,667,085	19,191,537	15,555,072
21	**Net for Return**	10,818,786	10,444,808	10,191,969	9,976,433	9,176,301	7,961,044	7,035,565
22	**Weighted Average Rate Base**	142,165,390	137,251,085	133,928,631	131,096,365	120,582,142	104,612,926	92,451,576
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
24	On EZOity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC alloca							
	Fixed Costs							
25	CPUC	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637
26	FERC	-	-	-	-	-	-	-
27	Total	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637
	Variable Costs							
28	CPUC	-	-	-	-	-	-	-
29	FERC	-	-	-	-	-	-	-
30	Total	-	-	-	-	-	-	-
31	Total Company Capital Revenue Requirement	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637
32	**Capital Revenue Requirement**	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-	-	-

Pacific Gas and Electric Company
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Taxable Income:							
1	Operating Revenue	39,568,276	38,771,622	37,845,781	35,861,075	31,843,386	27,152,580	22,590,637
2	Less: O&M Expenses	-	-	-	-	-	-	-
4	Taxes Other Than Income	2,118,705	2,315,803	2,311,212	2,255,816	2,212,523	2,110,133	1,899,149
5	Interest Charges	3,397,753	3,280,301	3,200,894	3,133,203	2,881,913	2,500,249	2,209,593
6	Fiscal/Calendar Adjustment	169,337	27,761	(32,351)	(23,044)	(20,250)	(82,140)	(128,843)
7	Operating Expense Adjustment	-	-	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-	-	-
11	Subtotal Deductions	5,685,795	5,623,864	5,479,755	5,365,975	5,074,186	4,528,241	3,979,898
12	Taxable Income before Depreciation	33,882,481	33,147,758	32,366,027	30,495,099	26,769,199	22,624,339	18,610,739
	California Corporation Franchise Tax (CCFT)							
13	State Depreciation	29,432,977	27,108,802	24,182,640	21,942,597	18,612,661	13,086,522	8,104,095
14	Removal Costs	-	-	-	-	-	-	-
15	Repair Allowance	14,989	15,292	15,601	12,117	-	-	-
16	Software Deduction	-	-	-	-	-	-	-
17	State Taxable Income	4,434,516	6,023,664	8,167,786	8,540,385	8,156,539	9,537,818	10,506,644
18	CCFT	392,011	532,492	722,032	754,970	721,038	843,143	928,787
19	Deferred Taxes - Depreciation	-	-	-	-	-	-	-
20	Deferred Taxes - Interest							
21	Deferred Taxes - Vacation							
22	Deferred Taxes- Other							
23	Total CCFT	392,011	532,492	722,032	754,970	721,038	843,143	928,787
	Federal Income Tax							
24	Prior Year CCFT	245,277	392,011	532,492	722,032	754,970	721,038	843,143
25	Federal Depreciation	28,922,561	26,357,092	23,546,129	21,178,062	17,359,520	11,340,573	6,171,774
26	Removal Costs	-	-	-	-	-	-	-
27	Repair Allowance	14,989	15,292	15,601	12,117	-	-	-
28	Software Deduction	-	-	-	-	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-	-	-
31	Federal Taxable Income	4,699,655	6,383,363	8,271,805	8,582,888	8,654,709	10,562,728	11,595,823
32	Federal Income Tax	986,928	1,340,506	1,737,079	1,802,406	1,817,489	2,218,173	2,435,123
33	Deferred Taxes - Depreciation	979,437	593,642	179,989	32,260	(143,984)	(708,326)	(1,091,303)
34	Deferred Taxes - Interest	-	-	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-	-	-
37	Total Federal Income Tax	1,966,364	1,934,148	1,917,068	1,834,667	1,673,505	1,509,847	1,343,819

Pacific Gas and Electric Company
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Weighted Cost of Capital							
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	3,397,753	3,280,301	3,200,894	3,133,203	2,881,913	2,500,249	2,209,593
6	Preferred Stock	42,650	41,175	40,179	39,329	36,175	31,384	27,735
7	Common EZOity	7,378,384	7,123,331	6,950,896	6,803,901	6,258,213	5,429,411	4,798,237
8	Total $	10,818,786	10,444,808	10,191,969	9,976,433	9,176,301	7,961,044	7,035,565
	Weighted Average Rate Base							
9	Plant	227,373,343	247,165,307	267,357,068	286,651,836	295,749,776	295,749,776	295,749,776
	Working Capital							
10	Fuel	-	-	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-	-	-
12	Working Cash	-	-	-	-	-	-	-
13	Subtotal	-	-	-	-	-	-	-
14	Total Plant	227,373,343	247,165,307	267,357,068	286,651,836	295,749,776	295,749,776	295,749,776
	Less:							
15	Accumulated Deferred Taxes	6,703,716	7,483,609	7,865,799	7,951,109	8,031,939	7,605,477	6,704,253
16	Deferred Investment Tax Credit	-	-	-	-	-	-	-
17	Customer Advances	-	-	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-	-	-
21	Subtotal	6,703,716	7,483,609	7,865,799	7,951,109	8,031,939	7,605,477	6,704,253
22	Accumulated Depreciation	78,504,237	102,430,613	125,562,638	147,604,362	167,135,694	183,531,373	196,593,947
23	Weighted Average Rate Base	142,165,390	137,251,085	133,928,631	131,096,365	120,582,142	104,612,926	92,451,576

Workpaper 4-14
Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - Intangible Plant
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Revenue Requirements Estimation Model
Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
1	**Operating Revenue:**	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660
	Operating Expenses:					
2	Expense	-	-	-	-	-
3	Production	-	-	-	-	-
4	Storage	-	-	-	-	-
5	Transmission	-	-	-	-	-
6	Distribution	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-
8	Customer Services	-	-	-	-	-
9	Administrative and General	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-
	Taxes:					
13	Property	-	-	-	-	-
14	Payroll	-	-	-	-	-
15	Other Taxes	-	-	-	-	-
16	State Corporation Franchise	(852,071)	(1,107,172)	(1,052,760)	(867,051)	(97,371)
17	Federal Income	(1,909,251)	(2,034,217)	(1,476,598)	(885,535)	678,232
18	Subtotal Taxes	(2,761,322)	(3,141,389)	(2,529,358)	(1,752,586)	580,861
19	**Depreciation**	1,180,762	3,844,082	7,001,901	10,263,209	13,022,395
20	**Total Operating Expenses**	(1,580,560)	702,693	4,472,543	8,510,623	13,603,256
21	**Net for Return**	522,630	1,663,202	2,827,177	3,779,032	4,251,403
22	**Weighted Average Rate Base**	6,867,673	21,855,481	37,150,817	49,658,769	55,866,008
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%
24	On Equity	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC allocation)					
	Fixed Costs					
25	CPUC	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660
26	FERC	-	-	-	-	-
27	Total	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660
	Variable Costs					
28	CPUC	-	-	-	-	-
29	FERC	-	-	-	-	-
30	Total	-	-	-	-	-
31	Total Company Capital Revenue Requirement	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660
32	**Capital Revenue Requirement**	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-

Pacific Gas and Electric Company
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Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Taxable Income:					
1	Operating Revenue	(1,057,930)	2,365,896	7,299,720	12,289,656	17,854,660
2	Less: O&M Expenses	-	-	-	-	-
4	Taxes Other Than Income	-	-	-	-	-
5	Interest Charges	164,137	522,346	887,905	1,186,845	1,335,198
6	Fiscal/Calendar Adjustment	-	-	-	-	-
7	Operating Expense Adjustment	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-
11	Subtotal Deductions	164,137	522,346	887,905	1,186,845	1,335,198
12	Taxable Income before Depreciation	(1,222,067)	1,843,550	6,411,816	11,102,811	16,519,462
	California Corporation Franchise Tax (CCFT)					
13	State Depreciation	1,122,119	3,852,139	7,160,899	9,496,363	9,747,639
14	Removal Costs	-	-	-	-	-
15	Repair Allowance	-	-	-	-	-
16	Software Deduction	7,294,630	10,515,983	11,159,964	11,414,712	7,873,302
17	State Taxable Income	(9,638,817)	(12,524,572)	(11,909,047)	(9,808,264)	(1,101,479)
18	CCFT	(852,071)	(1,107,172)	(1,052,760)	(867,051)	(97,371)
19	Deferred Taxes - Depreciation	-	-	-	-	-
20	Deferred Taxes - Interest					
21	Deferred Taxes - Vacation					
22	Deferred Taxes- Other					
23	Total CCFT	(852,071)	(1,107,172)	(1,052,760)	(867,051)	(97,371)
	Federal Income Tax					
24	Prior Year CCFT	(0)	(852,071)	(1,107,172)	(1,052,760)	(867,051)
25	Federal Depreciation	1,122,119	3,852,139	7,160,899	9,496,363	9,747,639
26	Removal Costs	-	-	-	-	-
27	Repair Allowance	-	-	-	-	-
28	Software Deduction	7,294,630	10,515,983	11,159,964	11,414,712	7,873,302
29	Capitalized Software adjustment - Federal	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-
31	Federal Taxable Income	(9,638,817)	(11,672,501)	(10,801,875)	(8,755,504)	(234,429)
32	Federal Income Tax	(2,024,152)	(2,451,225)	(2,268,394)	(1,838,656)	(49,230)
33	Deferred Taxes - Depreciation	114,901	417,009	791,796	953,121	727,462
34	Deferred Taxes - Interest	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-
37	Total Federal Income Tax	(1,909,251)	(2,034,217)	(1,476,598)	(885,535)	678,232

Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - Intangible Plant
Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Weighted Cost of Capital					
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	164,137	522,346	887,905	1,186,845	1,335,198
6	Preferred Stock	2,060	6,557	11,145	14,898	16,760
7	Common EZOity	356,432	1,134,299	1,928,128	2,577,290	2,899,446
8	Total $	522,630	1,663,202	2,827,177	3,779,032	4,251,403
	Weighted Average Rate Base					
9	Plant	7,299,555	24,975,878	46,282,306	68,289,312	87,077,995
	Working Capital					
10	Fuel	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-
12	Working Cash	-	-	-	-	-
13	Subtotal	-	-	-	-	-
14	Total Plant	7,299,555	24,975,878	46,282,306	68,289,312	87,077,995
	Less:					
15	Accumulated Deferred Taxes	21,895	271,849	872,999	1,744,267	2,602,162
16	Deferred Investment Tax Credit	-	-	-	-	-
17	Customer Advances	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-
21	Subtotal	21,895	271,849	872,999	1,744,267	2,602,162
22	Accumulated Depreciation	409,987	2,848,549	8,258,489	16,886,276	28,609,825
23	Weighted Average Rate Base	6,867,673	21,855,481	37,150,817	49,658,769	55,866,008

Workpaper 4-14
Pacific Gas and Electric Company
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Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
1	**Operating Revenue:**	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583
	Operating Expenses:							
2	Expense	-	-	-	-	-	-	-
3	Production	-	-	-	-	-	-	-
4	Storage	-	-	-	-	-	-	-
5	Transmission	-	-	-	-	-	-	-
6	Distribution	-	-	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-	-	-
8	Customer Services	-	-	-	-	-	-	-
9	Administrative and General	-	-	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-	-	-
	Taxes:							
13	Property	-	-	-	-	-	-	-
14	Payroll	-	-	-	-	-	-	-
15	Other Taxes	-	-	-	-	-	-	-
16	State Corporation Franchise	572,668	721,455	721,489	657,765	1,070,513	883,982	782,053
17	Federal Income	1,649,040	1,442,751	1,204,615	1,076,067	2,103,031	1,482,369	1,145,725
18	Subtotal Taxes	2,221,708	2,164,205	1,926,104	1,733,832	3,173,544	2,366,351	1,927,778
19	**Depreciation**	14,855,798	15,112,076	14,348,238	13,240,891	11,265,675	8,927,158	7,100,551
20	**Total Operating Expenses**	17,077,507	17,276,281	16,274,342	14,974,722	14,439,219	11,293,509	9,028,329
21	**Net for Return**	4,109,964	3,713,328	3,383,783	3,117,572	2,564,894	1,825,797	1,255,254
22	**Weighted Average Rate Base**	54,007,417	48,795,374	44,464,953	40,966,774	33,704,252	23,992,073	16,494,798
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
24	On Equity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC alloca							
	Fixed Costs							
25	CPUC	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583
26	FERC	-	-	-	-	-	-	-
27	Total	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583
	Variable Costs							
28	CPUC	-	-	-	-	-	-	-
29	FERC	-	-	-	-	-	-	-
30	Total	-	-	-	-	-	-	-
31	Total Company Capital Revenue Requirement	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583
32	**Capital Revenue Requirement**	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-	-	-

Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - Intang
Workpapers Supporting Chapter 4, Revenue Requireme

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Taxable Income:							
1	Operating Revenue	21,187,471	20,989,609	19,658,125	18,092,294	17,004,113	13,119,305	10,283,583
2	Less: O&M Expenses	-	-	-	-	-	-	-
4	Taxes Other Than Income	-	-	-	-	-	-	-
5	Interest Charges	1,290,777	1,166,209	1,062,712	979,106	805,532	573,411	394,226
6	Fiscal/Calendar Adjustment	-	-	-	-	-	-	-
7	Operating Expense Adjustment	-	-	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-	-	-
11	Subtotal Deductions	1,290,777	1,166,209	1,062,712	979,106	805,532	573,411	394,226
12	Taxable Income before Depreciation	19,896,694	19,823,399	18,595,412	17,113,188	16,198,581	12,545,895	9,889,358
	California Corporation Franchise Tax (CCFT)							
13	State Depreciation	8,447,371	6,590,551	5,259,728	4,860,541	4,088,707	2,546,100	1,042,600
14	Removal Costs	-	-	-	-	-	-	-
15	Repair Allowance	-	-	-	-	-	-	-
16	Software Deduction	4,971,180	5,071,598	5,174,044	4,811,864	-	-	-
17	State Taxable Income	6,478,143	8,161,251	8,161,640	7,440,783	12,109,874	9,999,794	8,846,758
18	CCFT	572,668	721,455	721,489	657,765	1,070,513	883,982	782,053
19	Deferred Taxes - Depreciation	-	-	-	-	-	-	-
20	Deferred Taxes - Interest							
21	Deferred Taxes - Vacation							
22	Deferred Taxes- Other							
23	Total CCFT	572,668	721,455	721,489	657,765	1,070,513	883,982	782,053
	Federal Income Tax							
24	Prior Year CCFT	(97,371)	572,668	721,455	721,489	657,765	1,070,513	883,982
25	Federal Depreciation	8,447,371	6,590,551	5,259,728	4,860,541	4,088,707	2,546,100	1,042,600
26	Removal Costs	-	-	-	-	-	-	-
27	Repair Allowance	-	-	-	-	-	-	-
28	Software Deduction	4,971,180	5,071,598	5,174,044	4,811,864	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-	-	-
31	Federal Taxable Income	6,575,514	7,588,583	7,440,185	6,719,294	11,452,109	8,929,282	7,962,776
32	Federal Income Tax	1,380,858	1,593,602	1,562,439	1,411,052	2,404,943	1,875,149	1,672,183
33	Deferred Taxes - Depreciation	268,183	(150,852)	(357,824)	(334,985)	(301,911)	(392,780)	(526,458)
34	Deferred Taxes - Interest	-	-	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-	-	-
37	Total Federal Income Tax	1,649,040	1,442,751	1,204,615	1,076,067	2,103,031	1,482,369	1,145,725

Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - Intang
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Weighted Cost of Capital							
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	1,290,777	1,166,209	1,062,712	979,106	805,532	573,411	394,226
6	Preferred Stock	16,202	14,639	13,339	12,290	10,111	7,198	4,948
7	Common EZOity	2,802,985	2,532,480	2,307,731	2,126,176	1,749,251	1,245,189	856,080
8	Total $	4,109,964	3,713,328	3,383,783	3,117,572	2,564,894	1,825,797	1,255,254
	Weighted Average Rate Base							
9	Plant	99,743,171	109,750,915	119,960,815	129,932,361	134,747,912	134,747,912	134,747,912
	Working Capital							
10	Fuel	-	-	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-	-	-
12	Working Cash	-	-	-	-	-	-	-
13	Subtotal	-	-	-	-	-	-	-
14	Total Plant	99,743,171	109,750,915	119,960,815	129,932,361	134,747,912	134,747,912	134,747,912
	Less:							
15	Accumulated Deferred Taxes	3,113,717	3,151,950	2,889,637	2,543,751	2,248,670	1,905,409	1,452,095
16	Deferred Investment Tax Credit	-	-	-	-	-	-	-
17	Customer Advances	-	-	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-	-	-
21	Subtotal	3,113,717	3,151,950	2,889,637	2,543,751	2,248,670	1,905,409	1,452,095
22	Accumulated Depreciation	42,622,036	57,803,590	72,606,225	86,421,836	98,794,989	108,850,430	116,801,018
23	Weighted Average Rate Base	54,007,417	48,795,374	44,464,953	40,966,774	33,704,252	23,992,073	16,494,798

Workpaper 4-14
Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - ED, Gas and Gen Functional Plant
Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
1	**Operating Revenue:**	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549
	Operating Expenses:					
2	Expense	-	-	-	-	-
3	Production	-	-	-	-	-
4	Storage	-	-	-	-	-
5	Transmission	-	-	-	-	-
6	Distribution	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-
8	Customer Services	-	-	-	-	-
9	Administrative and General	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-
	Taxes:					
13	Property	-	1,449,536	6,576,455	14,778,081	23,827,801
14	Payroll	-	-	-	-	-
15	Other Taxes	-	-	-	-	-
16	State Corporation Franchise	(13,382,827)	(18,916,735)	(17,238,960)	(14,184,044)	(4,657,478)
17	Federal Income	(30,999,493)	(39,248,600)	(31,624,670)	(22,365,292)	1,407,103
18	Subtotal Taxes	(44,382,321)	(56,715,800)	(42,287,175)	(21,771,255)	20,577,426
19	**Depreciation**	7,084,308	24,287,239	45,739,691	67,968,791	87,013,881
20	**Total Operating Expenses**	(37,298,013)	(32,428,561)	3,452,516	46,197,536	107,591,307
21	**Net for Return**	14,100,939	49,575,827	92,967,058	136,128,498	171,163,243
22	**Weighted Average Rate Base**	185,294,863	651,456,339	1,221,643,340	1,788,810,743	2,249,188,469
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%
24	On EZOity	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC allocation)					
	Fixed Costs					
25	CPUC	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549
26	FERC	-	-	-	-	-
27	Total	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549
	Variable Costs					
28	CPUC	-	-	-	-	-
29	FERC	-	-	-	-	-
30	Total	-	-	-	-	-
31	Total Company Capital Revenue Requirement	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549
32	**Capital Revenue Requirement**	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-

Pacific Gas and Electric Company
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Taxable Income:					
1	Operating Revenue	(23,197,074)	17,147,267	96,419,574	182,326,033	278,754,549
2	Less: O&M Expenses	-	-	-	-	-
4	Taxes Other Than Income	-	1,449,536	6,576,455	14,778,081	23,827,801
5	Interest Charges	4,428,547	15,569,807	29,197,276	42,752,577	53,755,604
6	Fiscal/Calendar Adjustment	-	1,449,536	3,677,383	4,524,243	4,525,477
7	Operating Expense Adjustment	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-
11	Subtotal Deductions	4,428,547	18,468,878	39,451,114	62,054,901	82,108,882
12	Taxable Income before Depreciation	(27,625,621)	(1,321,611)	56,968,460	120,271,133	196,645,668
	California Corporation Franchise Tax (CCFT)					
13	State Depreciation	8,720,775	30,651,939	57,375,804	84,042,731	105,769,191
14	Removal Costs	-	-	-	-	-
15	Repair Allowance	115,043,052	182,016,668	194,603,514	196,681,385	143,562,878
16	Software Deduction	-	-	-	-	-
17	State Taxable Income	(151,389,448)	(213,990,218)	(195,010,857)	(160,452,983)	(52,686,402)
18	CCFT	(13,382,827)	(18,916,735)	(17,238,960)	(14,184,044)	(4,657,478)
19	Deferred Taxes - Depreciation	-	-	-	-	-
20	Deferred Taxes - Interest					
21	Deferred Taxes - Vacation					
22	Deferred Taxes- Other					
23	Total CCFT	(13,382,827)	(18,916,735)	(17,238,960)	(14,184,044)	(4,657,478)
	Federal Income Tax					
24	Prior Year CCFT	(0)	(13,382,827)	(18,916,735)	(17,238,960)	(14,184,044)
25	Federal Depreciation	10,358,858	36,031,434	66,427,753	95,466,471	117,652,027
26	Removal Costs	-	-	-	-	-
27	Repair Allowance	115,043,052	182,016,668	194,603,514	196,681,385	143,562,878
28	Software Deduction	-	-	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-
31	Federal Taxable Income	(153,027,531)	(205,986,886)	(185,146,071)	(154,637,764)	(50,385,194)
32	Federal Income Tax	(32,135,781)	(43,257,246)	(38,880,675)	(32,473,930)	(10,580,891)
33	Deferred Taxes - Depreciation	1,136,288	4,008,646	7,256,005	10,108,638	11,987,994
34	Deferred Taxes - Interest	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-
37	Total Federal Income Tax	(30,999,493)	(39,248,600)	(31,624,670)	(22,365,292)	1,407,103

Pacific Gas and Electric Company
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Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Weighted Cost of Capital					
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	4,428,547	15,569,807	29,197,276	42,752,577	53,755,604
6	Preferred Stock	55,588	195,437	366,493	536,643	674,757
7	Common EZOity	9,616,803	33,810,584	63,403,289	92,839,278	116,732,882
8	Total $	14,100,939	49,575,827	92,967,058	136,128,498	171,163,243
	Weighted Average Rate Base					
9	Plant	187,983,063	671,584,139	1,282,268,459	1,914,950,566	2,464,520,981
	Working Capital					
10	Fuel	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-
12	Working Cash	-	-	-	-	-
13	Subtotal	-	-	-	-	-
14	Total Plant	187,983,063	671,584,139	1,282,268,459	1,914,950,566	2,464,520,981
	Less:					
15	Accumulated Deferred Taxes	228,371	2,612,284	8,212,220	16,893,116	28,090,734
16	Deferred Investment Tax Credit	-	-	-	-	-
17	Customer Advances	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-
21	Subtotal	228,371	2,612,284	8,212,220	16,893,116	28,090,734
22	Accumulated Depreciation	2,459,829	17,515,515	52,412,899	109,246,708	187,241,778
23	Weighted Average Rate Base	185,294,863	651,456,339	1,221,643,340	1,788,810,743	2,249,188,469

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Pacific Gas and Electric Company
ERP And GIS Transformation Benefits RO model - ED, Ga
Workpapers Supporting Chapter 4, Revenue Requiremen

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
1	**Operating Revenue:**	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707
	Operating Expenses:							
2	Expense	-	-	-	-	-	-	-
3	Production	-	-	-	-	-	-	-
4	Storage	-	-	-	-	-	-	-
5	Transmission	-	-	-	-	-	-	-
6	Distribution	-	-	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-	-	-
8	Customer Services	-	-	-	-	-	-	-
9	Administrative and General	-	-	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-	-	-
	Taxes:							
13	Property	32,063,384	38,466,521	43,559,108	48,308,830	52,939,230	55,733,943	55,042,129
14	Payroll	-	-	-	-	-	-	-
15	Other Taxes	-	-	-	-	-	-	-
16	State Corporation Franchise	(475,997)	1,300,557	3,053,088	4,967,071	22,525,023	21,919,635	21,762,885
17	Federal Income	10,405,386	14,587,015	19,126,621	23,940,663	64,821,468	58,164,203	56,466,202
18	Subtotal Taxes	41,992,773	54,354,093	65,738,818	77,216,564	140,285,721	135,817,780	133,271,215
19	**Depreciation**	102,242,938	116,760,869	131,572,063	146,584,999	153,491,563	153,488,403	153,475,841
20	**Total Operating Expenses**	144,235,711	171,114,962	197,310,881	223,801,563	293,777,284	289,306,183	286,747,056
21	**Net for Return**	196,281,817	218,529,407	240,269,435	261,304,438	265,132,907	252,527,686	240,052,651
22	**Weighted Average Rate Base**	2,579,261,723	2,871,608,500	3,157,285,610	3,433,698,271	3,484,006,667	3,318,366,442	3,154,436,941
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
24	On EZOity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC allocat							
	Fixed Costs							
25	CPUC	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707
26	FERC	-	-	-	-	-	-	-
27	Total	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707
	Variable Costs							
28	CPUC	-	-	-	-	-	-	-
29	FERC	-	-	-	-	-	-	-
30	Total	-	-	-	-	-	-	-
31	Total Company Capital Revenue Requirement	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707
32	**Capital Revenue Requirement**	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-	-	-

Pacific Gas and Electric Company
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Taxable Income:							
1	Operating Revenue	340,517,528	389,644,369	437,580,316	485,106,001	558,910,192	541,833,870	526,799,707
2	Less: O&M Expenses	-	-	-	-	-	-	-
4	Taxes Other Than Income	32,063,384	38,466,521	43,559,108	48,308,830	52,939,230	55,733,943	55,042,129
5	Interest Charges	61,644,355	68,631,443	75,459,126	82,065,389	83,267,759	79,308,958	75,391,043
6	Fiscal/Calendar Adjustment	3,710,107	2,693,030	2,399,558	2,350,163	2,280,237	514,476	(1,206,290)
7	Operating Expense Adjustment	-	-	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-	-	-
11	Subtotal Deductions	97,417,846	109,790,993	121,417,793	132,724,382	138,487,226	135,557,377	129,226,882
12	Taxable Income before Depreciation	243,099,682	279,853,375	316,162,523	352,381,620	420,422,966	406,276,493	397,572,826
	California Corporation Franchise Tax (CCFT)							
13	State Depreciation	121,429,627	135,520,053	149,385,847	162,848,305	165,615,011	158,316,818	151,386,347
14	Removal Costs	-	-	-	-	-	-	-
15	Repair Allowance	127,054,631	129,621,134	132,239,481	133,344,726	-	-	-
16	Software Deduction	-	-	-	-	-	-	-
17	State Taxable Income	(5,384,576)	14,712,188	34,537,195	56,188,589	254,807,955	247,959,675	246,186,478
18	CCFT	(475,997)	1,300,557	3,053,088	4,967,071	22,525,023	21,919,635	21,762,885
19	Deferred Taxes - Depreciation	-	-	-	-	-	-	-
20	Deferred Taxes - Interest							
21	Deferred Taxes - Vacation							
22	Deferred Taxes- Other							
23	Total CCFT	(475,997)	1,300,557	3,053,088	4,967,071	22,525,023	21,919,635	21,762,885
	Federal Income Tax							
24	Prior Year CCFT	(4,657,478)	(475,997)	1,300,557	3,053,088	4,967,071	22,525,023	21,919,635
25	Federal Depreciation	132,052,902	144,229,426	156,111,778	168,280,329	169,267,717	160,001,328	153,042,826
26	Removal Costs	-	-	-	-	-	-	-
27	Repair Allowance	127,054,631	129,621,134	132,239,481	133,344,726	-	-	-
28	Software Deduction	-	-	-	-	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-	-	-
31	Federal Taxable Income	(11,350,374)	6,478,811	26,510,707	47,703,477	246,188,178	223,750,142	222,610,364
32	Federal Income Tax	(2,383,578)	1,360,550	5,567,248	10,017,730	51,699,517	46,987,530	46,748,176
33	Deferred Taxes - Depreciation	12,788,964	13,226,464	13,559,373	13,922,932	13,121,951	11,176,673	9,718,026
34	Deferred Taxes - Interest	-	-	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-	-	-
37	Total Federal Income Tax	10,405,386	14,587,015	19,126,621	23,940,663	64,821,468	58,164,203	56,466,202

Pacific Gas and Electric Company
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Weighted Cost of Capital							
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	61,644,355	68,631,443	75,459,126	82,065,389	83,267,759	79,308,958	75,391,043
6	Preferred Stock	773,779	861,483	947,186	1,030,109	1,045,202	995,510	946,331
7	Common EZOity	133,863,683	149,036,481	163,863,123	178,208,940	180,819,946	172,223,218	163,715,277
8	Total $	196,281,817	218,529,407	240,269,435	261,304,438	265,132,907	252,527,686	240,052,651
	Weighted Average Rate Base							
9	Plant	2,901,814,169	3,316,639,153	3,739,843,601	4,169,062,573	4,384,563,507	4,384,563,507	4,384,563,507
	Working Capital							
10	Fuel	-	-	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-	-	-
12	Working Cash	-	-	-	-	-	-	-
13	Subtotal	-	-	-	-	-	-	-
14	Total Plant	2,901,814,169	3,316,639,153	3,739,843,601	4,169,062,573	4,384,563,507	4,384,563,507	4,384,563,507
	Less:							
15	Accumulated Deferred Taxes	40,525,489	53,525,799	66,911,163	80,649,042	94,556,280	106,705,344	117,152,686
16	Deferred Investment Tax Credit	-	-	-	-	-	-	-
17	Customer Advances	-	-	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-	-	-
21	Subtotal	40,525,489	53,525,799	66,911,163	80,649,042	94,556,280	106,705,344	117,152,686
22	Accumulated Depreciation	282,026,956	391,504,853	515,646,828	654,715,261	806,000,561	959,491,721	1,112,973,881
23	Weighted Average Rate Base	2,579,261,723	2,871,608,500	3,157,285,610	3,433,698,271	3,484,006,667	3,318,366,442	3,154,436,941

Workpaper 4-14
ERP And GIS Transformation Benefits RO model - FERC ETP Functional Plant
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
1	**Operating Revenue:**	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383
	Operating Expenses:					
2	Expense	-	-	-	-	-
3	Production	-	-	-	-	-
4	Storage	-	-	-	-	-
5	Transmission	-	-	-	-	-
6	Distribution	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-
8	Customer Services	-	-	-	-	-
9	Administrative and General	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-
	Taxes:					
13	Property	-	360,603	1,656,835	3,769,304	6,143,927
14	Payroll	-	-	-	-	-
15	Other Taxes	-	-	-	-	-
16	State Corporation Franchise	(2,578,130)	(3,487,330)	(2,771,027)	(1,783,908)	639,272
17	Federal Income	(6,124,517)	(7,722,634)	(5,775,972)	(3,515,817)	2,096,991
18	Subtotal Taxes	(8,702,647)	(10,849,361)	(6,890,164)	(1,530,420)	8,880,189
19	**Depreciation**	1,654,691	5,748,514	10,934,092	16,369,479	21,016,830
20	**Total Operating Expenses**	(7,047,956)	(5,100,846)	4,043,928	14,839,059	29,897,019
21	**Net for Return**	3,505,131	12,514,127	23,759,517	35,115,822	44,329,364
22	**Weighted Average Rate Base**	46,059,533	164,443,198	312,214,420	461,443,128	582,514,632
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%
24	On EZOilty	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC allocation)					
	Fixed Costs					
25	CPUC	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383
26	FERC	-	-	-	-	-
27	Total	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383
	Variable Costs					
28	CPUC	-	-	-	-	-
29	FERC	-	-	-	-	-
30	Total	-	-	-	-	-
31	Total Company Capital Revenue Requirement	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383
32	**Capital Revenue Requirement**	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-

Workpaper 4-14
ERP And GIS Transformation Benefits RO model - FERC ETP Functional Plant
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Taxable Income:					
1	Operating Revenue	(3,542,825)	7,413,281	27,803,445	49,954,881	74,226,383
2	Less: O&M Expenses	-	-	-	-	-
4	Taxes Other Than Income	-	360,603	1,656,835	3,769,304	6,143,927
5	Interest Charges	1,100,823	3,930,192	7,461,925	11,028,491	13,922,100
6	Fiscal/Calendar Adjustment	-	360,603	935,629	1,176,840	1,197,782
7	Operating Expense Adjustment	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-
11	Subtotal Deductions	1,100,823	4,651,398	10,054,388	15,974,635	21,263,809
12	Taxable Income before Depreciation	(4,643,648)	2,761,883	17,749,057	33,980,246	52,962,574
	California Corporation Franchise Tax (CCFT)					
13	State Depreciation	2,338,035	8,326,329	15,754,114	23,265,446	29,397,230
14	Removal Costs	-	-	-	-	-
15	Repair Allowance	23,278,345	37,895,222	40,885,995	41,869,684	29,951,162
16	Software Deduction	-	-	-	-	-
17	State Taxable Income	(30,260,028)	(43,459,667)	(38,891,052)	(31,154,883)	(6,385,818)
18	CCFT	(2,674,986)	(3,841,835)	(3,437,969)	(2,754,092)	(564,506)
19	Deferred Taxes - Depreciation	96,856	354,505	666,942	970,184	1,203,778
20	Deferred Taxes - Interest					
21	Deferred Taxes - Vacation					
22	Deferred Taxes- Other					
23	Total CCFT	(2,578,130)	(3,487,330)	(2,771,027)	(1,783,908)	639,272
	Federal Income Tax					
24	Prior Year CCFT	(0)	(2,674,986)	(3,841,835)	(3,437,969)	(2,754,092)
25	Federal Depreciation	2,630,289	9,345,201	17,546,034	25,580,892	31,777,576
26	Removal Costs	-	-	-	-	-
27	Repair Allowance	23,278,345	37,895,222	40,885,995	41,869,684	29,951,162
28	Software Deduction	-	-	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-
31	Federal Taxable Income	(30,552,282)	(41,803,553)	(36,841,138)	(30,032,361)	(6,012,072)
32	Federal Income Tax	(6,415,979)	(8,778,746)	(7,736,639)	(6,306,796)	(1,262,535)
33	Deferred Taxes - Depreciation	291,462	1,056,113	1,960,667	2,790,979	3,359,526
34	Deferred Taxes - Interest	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-
37	Total Federal Income Tax	(6,124,517)	(7,722,634)	(5,775,972)	(3,515,817)	2,096,991

Workpaper 4-14
ERP And GIS Transformation Benefits RO model - FERC ETP Functional Plant
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Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2031	2032	2033	2034	2035
	Weighted Cost of Capital					
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	1,100,823	3,930,192	7,461,925	11,028,491	13,922,100
6	Preferred Stock	13,818	49,333	93,664	138,433	174,754
7	Common EZOity	2,390,490	8,534,602	16,203,928	23,948,898	30,232,509
8	Total $	3,505,131	12,514,127	23,759,517	35,115,822	44,329,364
	Weighted Average Rate Base					
9	Plant	46,710,929	169,463,267	327,547,354	493,606,594	637,722,982
	Working Capital					
10	Fuel	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-
12	Working Cash	-	-	-	-	-
13	Subtotal	-	-	-	-	-
14	Total Plant	46,710,929	169,463,267	327,547,354	493,606,594	637,722,982
	Less:					
15	Accumulated Deferred Taxes	76,850	902,658	2,906,700	6,096,129	10,318,424
16	Deferred Investment Tax Credit	-	-	-	-	-
17	Customer Advances	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-
21	Subtotal	76,850	902,658	2,906,700	6,096,129	10,318,424
22	Accumulated Depreciation	574,545	4,117,411	12,426,235	26,067,338	44,889,926
23	Weighted Average Rate Base	46,059,533	164,443,198	312,214,420	461,443,128	582,514,632

Workpaper 4-14
ERP And GIS Transformation Benefits RO model - FERC ETP I
Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
1	**Operating Revenue:**	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206
	Operating Expenses:							
2	Expense	-	-	-	-	-	-	-
3	Production	-	-	-	-	-	-	-
4	Storage	-	-	-	-	-	-	-
5	Transmission	-	-	-	-	-	-	-
6	Distribution	-	-	-	-	-	-	-
7	Customer Accounts	-	-	-	-	-	-	-
8	Customer Services	-	-	-	-	-	-	-
9	Administrative and General	-	-	-	-	-	-	-
10	Uncollectibles	-	-	-	-	-	-	-
11	Franchise ReZOirements	-	-	-	-	-	-	-
12	Subtotal Expenses	-	-	-	-	-	-	-
	Taxes:							
13	Property	8,327,420	10,019,323	11,353,095	12,597,518	13,815,075	14,565,564	14,424,876
14	Payroll	-	-	-	-	-	-	-
15	Other Taxes	-	-	-	-	-	-	-
16	State Corporation Franchise	1,752,921	2,296,701	2,819,835	3,362,005	6,955,757	6,640,245	6,427,355
17	Federal Income	4,282,724	5,370,599	6,523,364	7,723,731	16,166,766	14,655,111	14,180,064
18	Subtotal Taxes	14,363,065	17,686,622	20,696,294	23,683,254	36,937,598	35,860,921	35,032,294
19	**Depreciation**	24,681,875	28,159,958	31,708,298	35,304,588	36,958,880	36,958,880	36,958,880
20	**Total Operating Expenses**	39,044,940	45,846,580	52,404,592	58,987,842	73,896,478	72,819,801	71,991,175
21	**Net for Return**	50,800,569	56,490,715	62,058,834	67,454,547	68,451,762	65,254,820	62,105,031
22	**Weighted Average Rate Base**	667,550,180	742,322,146	815,490,586	886,393,526	899,497,525	857,487,783	816,097,653
23	**Rate of Return:** On Rate Base	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
24	On EZOity	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
	Jurisdictional Allocations (see Workpaper 4-9 for CPUC allocation)							
	Fixed Costs							
25	CPUC	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206
26	FERC	-	-	-	-	-	-	-
27	Total	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206
	Variable Costs							
28	CPUC	-	-	-	-	-	-	-
29	FERC	-	-	-	-	-	-	-
30	Total	-	-	-	-	-	-	-
31	Total Company Capital Revenue Requirement	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206
32	**Capital Revenue Requirement**	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206
33	**Expense Revenue Requirement (see Workpaper 4-11)**	-	-	-	-	-	-	-

Workpaper 4-14
ERP And GIS Transformation Benefits RO model - FERC ETP I
Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Taxable Income:							
1	Operating Revenue	89,845,509	102,337,295	114,463,426	126,442,389	142,348,240	138,074,622	134,096,206
2	Less: O&M Expenses	-	-	-	-	-	-	-
4	Taxes Other Than Income	8,327,420	10,019,323	11,353,095	12,597,518	13,815,075	14,565,564	14,424,876
5	Interest Charges	15,954,449	17,741,499	19,490,225	21,184,805	21,497,991	20,493,958	19,504,734
6	Fiscal/Calendar Adjustment	985,711	706,191	627,581	616,842	600,715	149,774	(290,463)
7	Operating Expense Adjustment	-	-	-	-	-	-	-
8	Capitalized Interest Adjustment	-	-	-	-	-	-	-
9	Capitalized Inventory Adjustment	-	-	-	-	-	-	-
10	Vacation Accrual Reduction	-	-	-	-	-	-	-
11	Subtotal Deductions	25,267,581	28,467,013	31,470,901	34,399,166	35,913,781	35,209,297	33,639,147
12	Taxable Income before Depreciation	64,577,928	73,870,282	82,992,525	92,043,224	106,434,458	102,865,325	100,457,059
	California Corporation Franchise Tax (CCFT)							
13	State Depreciation	33,762,587	37,678,719	41,542,201	45,303,415	46,144,262	44,228,240	42,407,475
14	Removal Costs	-	-	-	-	-	-	-
15	Repair Allowance	26,216,890	26,746,471	27,286,750	27,504,140	-	-	-
16	Software Deduction	-	-	-	-	-	-	-
17	State Taxable Income	4,598,452	9,445,093	14,163,574	19,235,668	60,290,196	58,637,085	58,049,584
18	CCFT	406,503	834,946	1,252,060	1,700,433	5,329,653	5,183,518	5,131,583
19	Deferred Taxes - Depreciation	1,346,418	1,461,755	1,567,775	1,661,572	1,626,103	1,456,727	1,295,772
20	Deferred Taxes - Interest							
21	Deferred Taxes - Vacation							
22	Deferred Taxes- Other							
23	Total CCFT	1,752,921	2,296,701	2,819,835	3,362,005	6,955,757	6,640,245	6,427,355
	Federal Income Tax							
24	Prior Year CCFT	(564,506)	406,503	834,946	1,252,060	1,700,433	5,329,653	5,183,518
25	Federal Depreciation	35,740,853	39,044,776	42,221,792	45,441,728	45,694,471	43,227,687	41,366,406
26	Removal Costs	-	-	-	-	-	-	-
27	Repair Allowance	26,216,890	26,746,471	27,286,750	27,504,140	-	-	-
28	Software Deduction	-	-	-	-	-	-	-
29	Capitalized Software adjustment - Federal	-	-	-	-	-	-	-
30	Preferred Dividend Credit	-	-	-	-	-	-	-
31	Federal Taxable Income	3,184,692	7,672,532	12,649,037	17,845,295	59,039,554	54,307,985	53,907,135
32	Federal Income Tax	668,785	1,611,232	2,656,298	3,747,512	12,398,306	11,404,677	11,320,498
33	Deferred Taxes - Depreciation	3,613,939	3,759,367	3,867,066	3,976,219	3,768,459	3,250,435	2,859,566
34	Deferred Taxes - Interest	-	-	-	-	-	-	-
35	Deferred Taxes - Vacation	-	-	-	-	-	-	-
36	Deferred Taxes - Other	-	-	-	-	-	-	-
37	Total Federal Income Tax	4,282,724	5,370,599	6,523,364	7,723,731	16,166,766	14,655,111	14,180,064

Workpaper 4-14
ERP And GIS Transformation Benefits RO model - FERC ETP I
Workpapers Supporting Chapter 4, Revenue Requirement

Revenue Requirements Estimation Model

Results of Operations Calculations

Ln.No.		2036	2037	2038	2039	2040	2041	2042
	Weighted Cost of Capital							
1	Debt	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%	2.39%
2	Preferred Stock	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
3	Common EZOity	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%
4	Total %	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%	7.61%
5	Debt	15,954,449	17,741,499	19,490,225	21,184,805	21,497,991	20,493,958	19,504,734
6	Preferred Stock	200,265	222,697	244,647	265,918	269,849	257,246	244,829
7	Common EZOity	34,645,854	38,526,519	42,323,961	46,003,824	46,683,922	44,503,616	42,355,468
8	Total $	50,800,569	56,490,715	62,058,834	67,454,547	68,451,762	65,254,820	62,105,031
	Weighted Average Rate Base							
9	Plant	750,429,086	856,704,287	965,126,247	1,075,068,489	1,130,257,695	1,130,257,695	1,130,257,695
	Working Capital							
10	Fuel	-	-	-	-	-	-	-
11	Materials and Supplies	-	-	-	-	-	-	-
12	Working Cash	-	-	-	-	-	-	-
13	Subtotal	-	-	-	-	-	-	-
14	Total Plant	750,429,086	856,704,287	965,126,247	1,075,068,489	1,130,257,695	1,130,257,695	1,130,257,695
	Less:							
15	Accumulated Deferred Taxes	15,099,073	20,187,143	25,512,402	31,047,623	36,702,404	41,753,266	46,184,516
16	Deferred Investment Tax Credit	-	-	-	-	-	-	-
17	Customer Advances	-	-	-	-	-	-	-
18	Deferred CIAC Tax	-	-	-	-	-	-	-
19	Vacation Pay Deferral	-	-	-	-	-	-	-
20	Capitalized Interest	-	-	-	-	-	-	-
21	Subtotal	15,099,073	20,187,143	25,512,402	31,047,623	36,702,404	41,753,266	46,184,516
22	Accumulated Depreciation	67,779,832	94,194,997	124,123,258	157,627,340	194,057,766	231,016,646	267,975,526
23	Weighted Average Rate Base	667,550,180	742,322,146	815,490,586	886,393,526	899,497,525	857,487,783	816,097,653