

Docket: : A.25-05-009
Exhibit Number : CA Ex-34 WP
Commissioner : J. Reynolds
ALJs : Fox/Larsen/Gruen
Witness : G. Wilson



PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

Workpapers for CA-04
Electric Distribution Capital Expenditures
Part 2 of 6

San Francisco, California
May 15, 2026

Docket: : A.25-05-009
Exhibit Number : CA-04-WP
Commissioner : J. Reynolds
ALJs : Fox/Larsen/Gruen
Witness : G. Wilson



PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

Report on the Results of Operations
for
Pacific Gas and Electric Company
Test Year 2027
General Rate Case

Workpapers (Excluding Electronic Workpapers) for
Electric Distribution Capital Expenditures
Part 2 of 6

San Francisco, California
February 2026

TABLE OF CONTENTS

Title of Workpapers	Page Number
<u>Data Responses</u>	
1. PG&E response to Cal Advocates' data request PubAdv-PG&E-233-GAW, Q. 5	1
2. PG&E response to Cal Advocates' data request PubAdv-PG&E-233-GAW, Q. 8	3
3. PG&E response to Cal Advocates' data request PubAdv-PG&E-240-GAW, Q. 2	4
<u>Electronic Workpapers</u>	
4. Excel Spreadsheet Tables Provided in a Separate Submittal	6

**PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response**

PG&E Data Request No.:	CalAdvocates_233-Q005
PG&E File Name:	GRC-2027-Phi_DR_CalAdvocates_233-Q005
Request Date:	November 4, 2025
Requester DR No.:	PubAdv-PG&E-233-GAW
Requesting Party:	Public Advocates Office
Requester:	Greg Wilson
Date Sent:	November 19, 2025
PG&E Witness(es):	Tiffany Pazdan – Engineering, Planning and Strategy

SUBJECT: MWC 07 AND 2A QUESTIONS

QUESTION 005

On workpaper page WP 15-42, PG&E has provided Workpaper Table 15-34. On Line 26 of that table, PG&E has provided recorded unit costs for the years 2020 through 2024.

- a. Please provide comparable recorded unit costs for each of the years 2010 through 2019.
- b. Please discuss and explain (providing any necessary assumptions and/or calculations) why the 2024 unit cost of \$30,565 is significantly higher than any previous or forecast unit cost.

ANSWER 005

PG&E objects to this data request on the grounds that it seeks information beyond the relevant historical period of 2020-2024. Subject to that objection and without waiving its right to object to the use of its response in this proceeding, PG&E responds as follows:

- a. Please see the table below for comparable recorded unit costs for each of the years 2010 through 2019. PG&E did not provide a MAT code forecast for pole replacement work prior to the 2017 GRC. Historical costs below reflect 07D specifically for years

	Source	Year	Unit Cost
	A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21	2010	\$11,965
	A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21	2011	\$13,186
	A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21	2012	\$10,959
	A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21	2013	\$10,422

A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21	2014	\$11,797
A.18-12-009, Exhibit (PG&E-4), WP 8-17 line 21 (units), 2015 Budget Compliance Report (dollars)	2015	\$10,867
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14	2016	\$13,323
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14	2017	\$15,260
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14	2018	\$18,127
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14	2019	\$27,768

PG&E implemented a new cost allocation methodology in 2016. Unit costs provided prior to 2016 reflect the previous methodology.

- b. MAT 07D work was primarily executed in HFTDs in 2024. Many HFTD locations are harder to access, requiring helicopter sets, potentially extra vegetation management work, and extra labor hours due to increased drive time to remote locations. Each year there can be variability in the extent to which additional services are required. For unit costs based on costs since inception (as opposed to dividing the total spend by the number of units completed in a particular year), the following data is available for the Cost Elements:

SI Unit Cost Element	2022	2023	2024
Contract	\$15,592	\$15,012	\$14,178
Labor External	\$563	\$686	\$804
Labor Internal	\$2,953	\$3,240	\$5,944
Materials	\$3,625	\$4,138	\$5,098
Other	\$2,214	\$2,467	\$3,988
Total	\$24,947	\$25,543	\$30,012

The higher unit cost in 2024 is due to higher internal labor costs, higher material costs, and higher other costs.

**PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response**

PG&E Data Request No.:	CalAdvocates_233-Q008
PG&E File Name:	GRC-2027-Phi_DR_CalAdvocates_233-Q008
Request Date:	November 4, 2025
Requester DR No.:	PubAdv-PG&E-233-GAW
Requesting Party:	Public Advocates Office
Requester:	Greg Wilson
Date Sent:	November 19, 2025
PG&E Witness(es):	Tiffany Pazdan – Engineering, Planning and Strategy

SUBJECT: MWC 07 AND 2A QUESTIONS

QUESTION 008

On workpaper page WP 15-33, PG&E has provided Workpaper Table 15-25. On Line 26 of that table, PG&E has provided forecast unit cost amounts for the years 2020 through 2024. Please provide comparable recorded unit costs for each of the years 2010 through 2019.

ANSWER 008

PG&E objects to this data request on the grounds that it seeks information beyond the relevant historical period of 2020-2024. Subject to that objection and without waiving its right to object to the use of its response in this proceeding, PG&E responds as follows:

Please see the table below for comparable recorded unit costs for MAT 2AA for each of the years 2010 through 2019. PG&E implemented a new cost allocation methodology in 2016. Unit costs prior to 2016 reflect the previous methodology, with the exception of year 2015.

Source	Year	Unit Cost (\$s)
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2010	\$5,219
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2011	\$5,499
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2012	\$4,923
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2013	\$5,530
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2014	\$5,637
A.18-12-009, Exhibit (PG&E-4), WP 6-36 line 10	2015	\$4,339
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2016	\$4,990
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2017	\$4,938
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2018	\$6,570
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2019	\$10,889

**PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response**

PG&E Data Request No.:	CalAdvocates_240-Q002
PG&E File Name:	GRC-2027-Phi_DR_CalAdvocates_240-Q002
Request Date:	November 6, 2025
Requester DR No.:	PubAdv-PG&E-240-GAW
Requesting Party:	Public Advocates Office
Requester:	Greg Wilson
Date Sent:	November 21, 2025
PG&E Witness(es):	Narbir Hothi – Electric Operations

SUBJECT: ISSUES WITH RUNNING THE EXCEL WORKBOOK FOR CHAPTER 10

During our last overview meeting (on October 30th) with PG&E regarding Chapter 10 of Exhibit PG&E-04, PG&E began to review the subset of the 63 linked Excel tables that are used to derive PG&E's capital forecasts for MWC 16 -- Customer Connections. Cal Advocates has the following questions regarding these linked Excel tables.

QUESTION 002

In the October 30th overview meeting, PG&E confirmed that Workpaper Table 10-20 was the correct Excel table in which to make any adjustments to the number of New Customer connections that Cal Advocates may wish to make. Potentially linked to the issue of errors that are discussed above in Question 1, Cal Advocates has discovered that simple hypothetical adjustments that are made to Workpaper Table 10-20 do not seem to successfully flow through the remainder of the linked Excel tables. As an example, reducing the number of PEV forecast applications (deemed to be complete) seems to result in an increase in PEV connection costs. On the next page, a hypothetical Table 10-20 example is provide in which Cal Advocates simply copied the values for the completed 2024 PEV applications (shaded in green), and pasted those values for the years 2025 through 2030 (shaded in yellow). As shown on the Line 11 highlighted cells on Workpaper Table 10-18 (provided on the lower portion of the following page), when the Excel tables are rerun (using the substituted PEV values for 2025 through 2030), the resulting MWC 16 forecasts are higher than before.

- a. Please confirm that the MWC 16 capital costs obtained by Cal Advocates are also obtained by PG&E when PG&E makes the same Workpaper Table 10-20 PEV changes.
- b. If PG&E obtains the same MWC 16 capital costs as did Cal Advocates, please explain why decreasing the number of completed PEV applications should logically result in an increase in MWC 16 capital costs.

- c. If PG&E concludes that there is some type of error in the linked Excel tables that is causing the increased MWC 16 costs, please provide a date by which PG&E will have the errors corrected.

Worksheet Table 10-20
Pacific Gas and Electric Company
Exhibit (PG&E-4), Chapter 10, New Business and WRO
MWC 16 - New Business - Applications Deemed Complete (ADC) w/ CAGR

Line No.	Line Description	2020	2021	2022	2023	2024	CAGR	Forecast Applications Deemed Complete					Notes	
		Applications Deemed Complete						2025	2026	2027	2028	2029		2030
24	PEV	123	369	205	1,136	1,200	103%	1,200	1,200	1,200	1,200	1,200	1,200	(2)
25	PEV Res	25	275	276	1,492	1,369	103%	1,369	1,369	1,369	1,369	1,369	1,369	(2)
26	Large	3	47	48	216	117	74%	117	117	117	117	117	117	(2)
27	> 1,000				4		0%							(2)
28	500-1000		15	2	32	7	47%	7	7	7	7	7	7	(2)
29	200-500		32	42	190	110	75%	110	110	110	110	110	110	(2)
30	Small/Med		22	227	227	1,261	1,410	100%	1,410	1,410	1,410	1,410	1,410	(2)
31	100-200		3	40	70	324	281	90%	281	281	281	281	281	(2)
32	50-100		6	64	64	549	499	95%	499	499	499	499	499	(2)
33	< 50		13	114	87	497	657	115%	657	657	657	657	657	(2)
34	Short Cycle		1	1	1	3	0%	3	3	3	3	3	3	(2)
35	< 16		1	1	1	3	0%	3	3	3	3	3	3	(2)
36	PEV NonRes (Rule 15/16)		88	84	29	7	6	83%	6	6	6	6	6	(2)
37	Large		45	34	9	3	2	82%	2	2	2	2	2	(2)
38	> 1,000		1	1	3	2	0%							(2)
39	500-1000		16	9	11		0%							(2)
40	200-500		28	24	5	1	2	141%	2	2	2	2	2	(2)
41	Small/Med		52	60	20	5	4	89%	4	4	4	4	4	(2)
42	100-200		34	28	7	4	1	50%	1	1	1	1	1	(2)
43	50-100		15	17	5	1	4	200%	4	4	4	4	4	(2)
44	< 50		3	15	9	1	1	100%	1	1	1	1	1	(2)
45	Short Cycle		1				0%							(2)
46	< 16		1				0%							(2)

Worksheet Table 10-18
Pacific Gas and Electric Company
Exhibit (PG&E-4), Chapter 10, New Business and WRO
New Business Capital Summary
(Thousands of Dollars)

Line No.	Line Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Recorded					Forecast					
Table 1: 2027 GRC Forecast Capital Expenditures (000's)												
1	Base Connects	\$ 404,343	\$ 483,039	\$ 620,598	\$ 791,752	\$ 835,388	\$ 514,420	\$ 262,094	\$ 600,266	\$ 615,844	\$ 631,984	\$ 649,041
2	Residential Connects	\$ 160,952	\$ 244,229	\$ 344,735	\$ 477,607	\$ 529,906	\$ 305,069	\$ 166,735	\$ 443,262	\$ 464,695	\$ 489,629	\$ 510,667
3	Non-Residential Connects	\$ 217,901	\$ 238,810	\$ 275,863	\$ 314,146	\$ 305,391	\$ 209,651	\$ 93,360	\$ 156,983	\$ 151,040	\$ 145,350	\$ 138,444
4	PEV - Rule	\$ 19,231	\$ 21,398	\$ 27,206	\$ 29,846	\$ 84,879	\$ 44,393	\$ 22,401	\$ 160,340	\$ 196,198	\$ 196,203	\$ 196,203
5	PEV Res	\$ 966	\$ 2,668	\$ 3,005	\$ 17,939	\$ 80,305	\$ 41,684	\$ 21,037	\$ 158,701	\$ 154,477	\$ 154,477	\$ 154,477
6	PEV NonRes (Rule 15/16)	\$ 18,235	\$ 18,730	\$ 24,201	\$ 11,908	\$ 4,574	\$ 2,709	\$ 1,364	\$ 1,639	\$ 1,681	\$ 1,726	\$ 1,773
7	PEV - Rule 29	\$ 11	\$ 86	\$ 4,264	\$ 40,812	\$ 96,244	\$ 343,934	\$ 328,107	\$ 342,914	\$ 362,531	\$ 379,556	\$ 394,924
8	PEV NonRes (Rule 20)	\$ 11	\$ 86	\$ 4,264	\$ 40,812	\$ 96,244	\$ 343,934	\$ 328,107	\$ 342,914	\$ 362,531	\$ 379,556	\$ 394,924
9	Transformer Purchases	\$ 107,283	\$ 111,557	\$ 159,115	\$ 239,875	\$ 250,147	\$ 335,599	\$ 374,653	\$ 112,134	\$ 115,050	\$ 118,145	\$ 121,358
10	Transformer Scrapping	\$ 4,739	\$ 5,416	\$ 5,710	\$ 6,432	\$ 6,090	\$ 2,430	\$ 5,744	\$ 6,412	\$ 6,830	\$ 6,862	\$ 6,103
11	Total 2027 GRC Capital Expenditures	\$ 536,207	\$ 621,496	\$ 816,893	\$ 1,108,720	\$ 1,272,748	\$ 1,240,776	\$ 992,958	\$ 1,224,066	\$ 1,258,013	\$ 1,294,750	\$ 1,330,676

ANSWER 002

- a. Yes, PG&E also see the same results as provided and referenced in the question.
- b. Maintaining the 2024 Forecast Applications Deemed Complete for 2025-2030 will not derive the same 2024 capital costs due to other variables and ratios in the forecast model. Even though the total units may be lower, job size mix and resource mix can alter the capital costs outcome.
- c. No formula errors were uncovered within the linked excel tables.

Electronic Workpapers

The bulk of Cal Advocates' workpapers for Ex. CA-04 consist of 23 Excel tables and graphs, which are all electronically linked, that were used in the development of Cal Advocates' forecasts. Those electronic workpapers will be provided in a separate workpaper submittal.

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Report on the Results of Operations
for
Pacific Gas and Electric Company
Test Year 2027
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Electronic Workpapers for
Electric Distribution Capital Expenditures
Part 2 of 6

San Francisco, California
February 2026

TABLE OF CONTENTS

Title of Workpapers	Page Number
<u>Electronic Workpapers</u>	
1. Excel Spreadsheet Tables	1

Electronic Workpapers

The bulk of Cal Advocates' workpapers for Ex. CA-04 consist of 23 Excel tables and graphs that were used in the development of Cal Advocates' forecasts. See attached Excel file, Capital Tables for Ex. CA-04-WP.xls.

TABLE 04-2
ELECTRIC T&D CAPITAL EXPENDITURES -- CPUC JURISDICTION
(Thousands of Nominal Dollars)

Line #	Exhibit PG&E-4 Capital Categories	MWC	Forecast (Reflects PG&E's November 10, 2025 Errata Changes)								
			2025			2026			2027		
			PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates
			(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
New Business / Work at the Request of Others -- Ch. 10											
1	Electric Distribution WRO - General	10	\$220,841	\$220,841	\$0	\$224,160	\$224,160	\$0	\$254,362	\$254,362	\$0
2	Electric Distribution Customer Connects	16	\$1,240,776	\$1,240,776	\$0	\$992,999	\$992,999	\$0	\$1,221,133	\$1,158,722	\$62,411
3	Electric Distribution WRO Rule 20A	30	\$35,449	\$35,449	\$0	\$29,958	\$29,958	\$0	\$30,810	\$30,810	\$0
4	Chapter 10 Total		\$1,497,066	\$1,497,066	\$0	\$1,247,116	\$1,247,116	\$0	\$1,506,305	\$1,443,893	\$62,411
Electric Emergency Recovery -- Ch. 11											
5	Electric Distribution Routine Emergency	17	\$410,461	\$410,461	\$0	\$428,988	\$428,988	\$0	\$506,962	\$506,962	\$0
6	Electric Distribution Major Emergency	95	\$104,826	\$104,826	\$0	\$104,826	\$104,826	\$0	\$112,679	\$112,679	\$0
7	Chapter 11 Total		\$515,287	\$515,287	\$0	\$533,813	\$533,813	\$0	\$619,641	\$619,641	\$0
Overhead Maintenance and Poles -- Ch. 15											
8	Electric Distribution Install/Replace OH Poles	7	\$656,380	\$527,189	\$129,191	\$576,785	\$476,402	\$100,383	\$1,334,030	\$1,158,266	\$175,764
9	Misc Capital	21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Electric Distribution Install/Replace OH General	2A	\$292,184	\$191,693	\$100,490	\$318,496	\$205,957	\$112,539	\$653,064	\$428,289	\$224,775
11	Install/Rplace WildFire Mitigation Equipment	3U	\$9,702	\$9,702	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	Chapter 15 Total		\$958,266	\$728,585	\$229,681	\$895,281	\$682,359	\$212,922	\$1,987,094	\$1,586,555	\$400,539
Maintenance and Infrastructure Replacement -- Ch. 16											
13	Electric Distribution Install/Replace UG	2B	\$43,974	\$43,974	\$0	\$37,162	\$37,162	\$0	\$82,487	\$82,487	\$0
14	Electric Distribution Install/Replace Network	2C	\$12,489	\$12,489	\$0	\$10,402	\$10,402	\$0	\$15,672	\$15,672	\$0
15	Electric Distribution Replace UG Asset-General	56	\$87,286	\$87,286	\$0	\$117,073	\$117,073	\$0	\$85,006	\$85,006	\$0
16	Chapter 16 Total		\$143,750	\$143,750	\$0	\$164,638	\$164,638	\$0	\$183,165	\$183,165	\$0
17	Grand Total		\$3,114,369	\$2,884,687	\$229,681	\$2,840,848	\$2,627,927	\$212,922	\$4,296,204	\$3,833,254	\$462,951

**TABLE 04-3
ELECTRIC T&D CAPITAL EXPENDITURES -- CPUC JURISDICTION
(Thousands of Nominal Dollars)**

Line #	Exhibit PG&E-4 Capital Categories	MWC	Forecast (Specific Post Test-Year Forecasts)									
			2028			2029			2030			
			PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	
			(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	
	<u>New Business / Work at the Request of Others -- Ch. 10</u>											
1	Electric Distribution WRO - General	10										
2	Electric Distribution Customer Connects	16	1,252,882	\$1,201,318	\$51,564	1,286,585	\$1,241,506	\$45,078	1,321,580	\$1,274,318	\$47,262	
3	Electric Distribution WRO Rule 20A	30										
4	Chapter 10 Total		\$1,252,882	\$1,201,318	\$51,564	\$1,286,585	\$1,241,506	\$45,078	\$1,321,580	\$1,274,318	\$47,262	
	<u>Electric Emergency Recovery -- Ch. 11</u>											
5	Electric Distribution Routine Emergency	17										
6	Electric Distribution Major Emergency	95										
7	Chapter 11 Total											
	<u>Overhead Maintenance and Poles -- Ch. 15</u>											
8	Electric Distribution Install/Replace OH Poles	7	\$1,318,683	\$1,154,060	\$164,623	\$1,416,444	\$1,236,787	\$179,657	\$1,331,402	\$1,154,220	\$177,182	
9	Misc Capital	21										
10	Electric Distribution Install/Replace OH General	2A	\$803,543	\$513,566	\$289,978	\$829,364	\$536,378	\$292,986	\$1,221,472	\$778,998	\$442,474	
11	Install/Rplace WildFire Mitigation Equipment	3U										
12	Chapter 15 Total		\$2,122,227	\$1,667,626	\$454,601	\$2,245,808	\$1,773,164	\$472,644	\$2,552,874	\$1,933,217	\$619,657	
	<u>Maintenance and Infrastructure Replacement -- Ch. 16</u>											
13	Electric Distribution Install/Replace UG	2B										
14	Electric Distribution Install/Replace Network	2C										
15	Electric Distribution Replace UG Asset-General	56										
16	Chapter 16 Total											
17	Grand Total		\$3,375,109	\$2,868,944	\$506,165	\$3,532,393	\$3,014,671	\$517,722	\$3,874,454	\$3,207,536	\$666,918	

Table 04-1
PG&E's Recorded and Proposed Capital Expenditures for Exhibit PG&E-4, Chapters 10, 11, 15, and 16
(Thousands of Nominal Dollars)

Line #	Exhibit PG&E-4 Capital Categories	MWC	Recorded					PG&E's Forecasts (Reflects PG&E's November 10, 2025 Errata Changes)			
			2020	2021	2022	2023	2024	2025	2026	2027	2025 Through 2027
			(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
New Business / Work at the Request of Others -- Ch. 10											
1	Electric Distribution WRO-General	10	\$145,674	\$169,239	\$178,030	\$242,285	\$236,310	\$220,841	\$224,160	\$254,362	\$699,362
2	Electric Distribution Customer Connects	16	\$536,207	\$621,496	\$816,893	\$1,108,720	\$1,272,748	\$1,240,776	\$992,999	\$1,221,133	\$3,454,908
3	Electric Distribution WRO Rule 20A	30	\$38,273	\$37,818	\$30,479	\$23,890	\$16,953	\$35,449	\$29,958	\$30,810	\$96,217
4	Chapter 10 Total		\$720,154	\$828,553	\$1,025,402	\$1,374,896	\$1,526,011	\$1,497,066	\$1,247,116	\$1,506,305	\$4,250,487
Electric Emergency Recovery -- Ch. 11											
5	Electric Distribution Routine Emergency	17	\$247,499	\$274,460	\$360,832	\$395,416	\$478,890	\$410,461	\$428,988	\$506,962	\$1,346,410
6	Electric Distribution Major Emergency	95	\$64,159	\$143,295	\$75,133	\$49,281	\$192,103	\$104,826	\$104,826	\$112,679	\$322,331
7	Chapter 11 Total		\$311,659	\$417,754	\$435,965	\$444,697	\$670,992	\$515,287	\$533,813	\$619,641	\$1,668,741
Overhead Maintenance and Poles -- Ch. 15											
8	Electric Distribution Install/Replace OH Poles	7	\$248,163	\$415,068	\$507,000	\$361,001	\$563,618	\$656,380	\$576,785	\$1,334,030	\$2,567,195
9	Misc Capital	21	\$2,656	\$594	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Electric Distribution Install/Replace OH General	2A	\$305,696	\$418,939	\$377,807	\$378,809	\$350,990	\$292,184	\$318,496	\$653,064	\$1,263,743
11	Install/Rplace WildFire Mitigation Eqpmt	3U	\$7,847	\$11,295	\$23,064	\$18,267	\$16,895	\$9,702	\$0	\$0	\$9,702
12	Chapter 15 Total		\$564,362	\$845,896	\$907,871	\$758,077	\$931,503	\$958,266	\$895,281	\$1,987,094	\$3,840,641
Maintenance and Infrastructure Replacement -- Ch. 16											
13	Electric Distribution Install/Replace UG	2B	\$47,590	\$83,890	\$101,650	\$86,587	\$107,450	\$43,974	\$37,162	\$82,487	\$163,624
14	Electric Distribution Install/Replace Network	2C	\$22,566	\$21,838	\$19,238	\$16,064	\$16,235	\$12,489	\$10,402	\$15,672	\$38,564
15	Electric Distribution Replace UG Asset-General	56	\$79,924	\$106,425	\$95,471	\$31,265	\$41,551	\$87,286	\$117,073	\$85,006	\$289,365
16	Chapter 16 Total		\$150,080	\$212,153	\$216,358	\$133,916	\$165,236	\$143,750	\$164,638	\$183,165	\$491,552
17	Grand Total		\$1,746,255	\$2,304,356	\$2,585,596	\$2,711,586	\$3,293,742	\$3,114,369	\$2,840,848	\$4,296,204	\$10,251,421

TABLE 04-3 (Chapter 10 Excerpt)
ELECTRIC T&D CAPITAL EXPENDITURES -- CPUC JURISDICTION
(Thousands of Nominal Dollars)

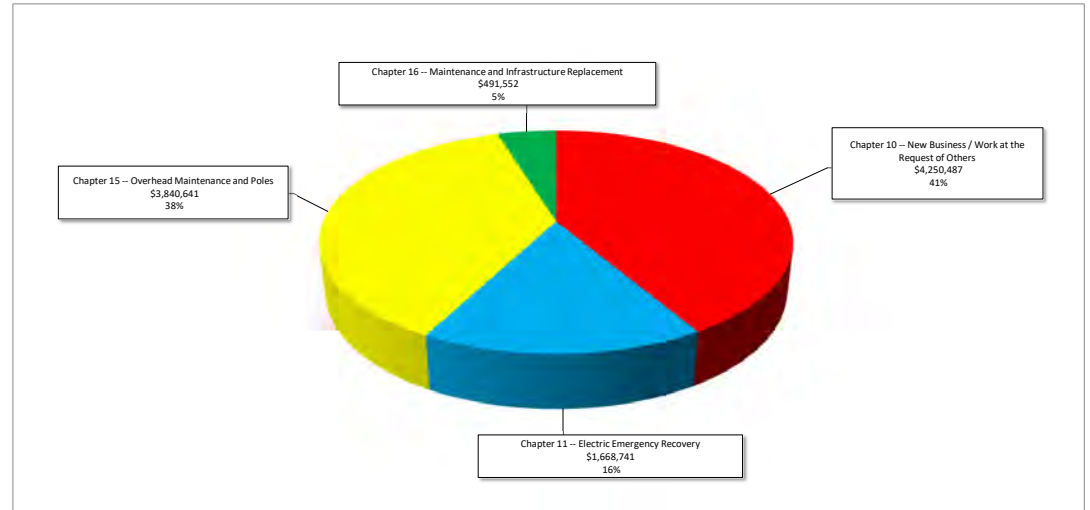
Line #	Exhibit PG&E-4 Capital Categories	MWC	Forecast (Test Year Impacts)									Forecast (Specific Post Test-Year Forecasts)								
			2025			2026			2027			2028			2029			2030		
			PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)			
	New Business / Work at the Request of Others -- Ch. 10																			
1	Electric Distribution WRO - General	10	\$220,841	\$220,841	\$0	\$224,160	\$224,160	\$0	\$254,362	\$254,362	\$0	Addressed in Exhibit CA-27			Addressed in Exhibit CA-27			Addressed in Exhibit CA-27		
2	Electric Distribution Customer Connects	16	\$1,240,776	\$1,240,776	\$0	\$992,999	\$992,999	\$0	\$1,221,133	\$1,158,722	\$62,411	1,252,882	\$1,201,318	\$51,564	1,286,585	\$1,241,506	\$45,078	1,321,580	\$1,274,318	\$47,262
3	Electric Distribution WRO Rule 20A	30	\$35,449	\$35,449	\$0	\$29,958	\$29,958	\$0	\$30,810	\$30,810	\$0	Addressed in Exhibit CA-27			Addressed in Exhibit CA-27			Addressed in Exhibit CA-27		
4	Chapter 10 Total		\$1,497,066	\$1,497,066	\$0	\$1,247,116	\$1,247,116	\$0	\$1,506,305	\$1,443,893	\$62,411	\$1,252,882	\$1,201,318	\$51,564	\$1,286,585	\$1,241,506	\$45,078	\$1,321,580	\$1,274,318	\$47,262

TABLE 04-3 (Chapter 15 Excerpt)
ELECTRIC T&D CAPITAL EXPENDITURES -- CPUC JURISDICTION
(Thousands of Nominal Dollars)

Line #	Exhibit PG&E-4 Capital Categories	MWC	Forecast (Test Year Impacts)									Forecast (Specific Post Test-Year Forecasts)								
			2025			2026			2027			2028			2029			2030		
			PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates	PG&E	Cal Advocates	PG&E > Cal Advocates
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)			
8	Overhead Maintenance and Poles -- Ch. 15	7	\$656,380	\$527,189	\$129,191	\$576,785	\$476,402	\$100,383	\$1,334,030	\$1,158,266	\$175,764	\$1,318,683	\$1,154,060	\$164,623	\$1,416,444	\$1,236,787	\$179,657	\$1,331,402	\$1,154,220	\$177,182
9	Electric Distribution Install/Replace OH Poles	2.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	
10	Misc Capital	2A	\$292,184	\$191,693	\$100,490	\$318,496	\$205,957	\$112,539	\$653,064	\$428,289	\$224,775	\$803,543	\$513,566	\$289,978	\$829,364	\$536,378	\$292,986	\$1,221,472	\$778,998	\$442,474
11	Electric Distribution Install/Replace OH General	3U	\$9,702	\$9,702	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	Addressed in Exhibit CA-27	
12	Install/Rplace WildFire Mitigation Equipment																			
	Chapter 15 Total		\$958,266	\$728,585	\$229,681	\$895,281	\$682,359	\$212,922	\$1,987,094	\$1,586,555	\$400,539	\$2,122,227	\$1,667,626	\$454,601	\$2,245,808	\$1,773,164	\$472,644	\$2,552,874	\$1,933,217	\$619,657

Exhibit PG&E-4

	Total	2025	2026	2027
Chapter 10 -- New Business / Work at the Request of Others	\$4,250,487	\$1,497,066	\$1,247,116	\$1,506,305
Chapter 11 -- Electric Emergency Recovery	\$1,668,741	\$515,287	\$533,813	\$619,641
Chapter 15 -- Overhead Maintenance and Poles	\$3,840,641	\$958,266	\$895,281	\$1,987,094
Chapter 16 -- Maintenance and Infrastructure Replacement	\$491,552	\$143,750	\$104,638	\$183,165
Total	\$10,251,421	\$3,114,369	\$2,840,848	\$4,296,204



Workpaper Table 10-12 (Includes November 10th Errata)

Pacific Gas and Electric Company
 2027 General Rate Case
 Exhibit (PG&E-4), Chapter 10
 New Business and WRO
 Capital Expenditures by Major Work Category
 (Thousands of Nominal Dollars)

Capital Expenditures														Notes	Reference
No.	MWC	MWC Description	2020 Recorded Adjusted	2021 Recorded Adjusted	2022 Recorded Adjusted	2023 Recorded Adjusted	2024 Recorded Adjusted	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast		
1	10	E Dist WRO General	145,674	169,239	178,030	242,285	236,310	220,841	224,160	254,362	216,317	218,590	221,657	(1)	
2	16	E Dist Customer Connects	536,207	621,496	816,893	1,108,720	1,272,748	1,240,776	992,999	1,221,133	1,252,882	1,286,585	1,321,580	(1)	
3	30	E Dist WRO Rule 20A	38,273	37,818	30,479	23,890	16,953	35,449	29,958	30,810	31,313	29,599	27,035		
4		Grand Total	720,154	828,553	1,025,402	1,374,896	1,526,011	1,497,066	1,247,116	1,506,305	1,500,513	1,534,774	1,570,272		

(1) The value(s) reflected in this table may vary from the initial Results of Operations (RO) Model provided with PG&E's GRC filing due to timing differences. The RO Model will be updated to incorporate these errata in a

Workpaper Table 11-9
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 11
Electric Emergency Recovery
Capital Expenditures by Major Work Category
(Thousands of Nominal Dollars)

No.	MWC	MWC Description	Capital Expenditures											Reference
			2020 Recorded Adjusted	2021 Recorded Adjusted	2022 Recorded Adjusted	2023 Recorded Adjusted	2024 Recorded Adjusted	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	
1	17	E Dist Routine Emergency	247,499	274,460	360,832	395,416	478,890	410,461	428,988	506,962	530,576	554,101	578,978	WP 11-13
2	95	E Dist Major Emergency	64,159	143,295	75,133	49,281	192,103	104,826	104,826	112,679	112,884	113,100	113,325	WP 11-14
3		Grand Total	311,659	417,754	435,965	444,697	670,992	515,287	533,813	619,641	643,460	667,202	692,303	

Workpaper Table 15-20
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 15
OH Maintenance and Poles
Capital Expenditures by Major Work Category
(Thousands of Nominal Dollars)

No.	MWC	MWC Description	Capital Expenditures											Notes	Reference
			2020 Recorded Adjusted	2021 Recorded Adjusted	2022 Recorded Adjusted	2023 Recorded Adjusted	2024 Recorded Adjusted	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast		
1	7	E Dist Inst/Repl OH Poles	248,163	415,068	507,000	361,001	563,618	656,380	576,785	1,334,030	1,318,683	1,416,444	1,331,402	(1)	WP 15-40
2	21	Misc Capital	2,656	594	-	-	-	-	-	-	-	-	-	(2)	
3	2A	E Dist Inst/Repl OH General	305,696	418,939	377,807	378,809	350,990	292,184	318,496	653,064	803,543	829,364	1,221,472	(1)	WP 15-32
4	3U	Inst/Rpl WildFire Mitgt Eqpmnt	7,847	11,295	23,064	18,267	16,895	9,702	-	-	-	-	-		WP 15-47
5		Grand Total	564,362	845,896	907,871	758,077	931,503	958,266	895,281	1,987,094	2,122,227	2,245,808	2,552,874		

(1) The value(s) reflected in this table may vary from the initial Results of Operations (RO) Model provided with PG&E's GRC filing due to timing differences. The RO Model will be updated to incorporate these errata in a future

(2) The value(s) reflected in this table for MWC 21 is for wind loading software for use in pole loading analysis. The enhanced software measures the risk of pole failure under various wind conditions (e.g., speed, direction) and other factors

Workpaper Table 16-15
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 16
Underground Maintenance and Infrastructure Replacement
Capital Expenditures by Major Work Category
(Thousands of Nominal Dollars)

Capital Expenditures														Notes	Reference
No.	MWC	MWC Description	2020 Recorded Adjusted	2021 Recorded Adjusted	2022 Recorded Adjusted	2023 Recorded Adjusted	2024 Recorded Adjusted	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast		
1	2B	E Dist Inst/Repl UG	\$ 47,590	\$ 83,890	\$ 101,650	\$ 86,587	\$ 107,450	\$ 43,974	\$ 37,162	\$ 82,487	\$ 107,585	\$ 107,231	\$ 115,752		WP 16-27, line 13
2	2C	E Dist Inst/Repl Network	22,566	21,838	19,238	16,064	16,235	12,489	10,402	15,672	25,780	19,052	22,730		WP 16-32, line 13
3	56	E Dist Replace UG Asset-Gen	79,924	106,425	95,471	31,265	41,551	87,286	117,073	85,006	102,712	138,485	139,317	(1)	WP 16-19, line 10
4		Grand Total	\$ 150,080	\$ 212,153	\$ 216,358	\$ 133,916	\$ 165,236	\$ 143,750	\$ 164,638	\$ 183,165	\$ 236,077	\$ 264,768	\$ 277,799		

(1) The value(s) reflected in this table may vary from the initial Results of Operations (RO) Model provided with PG&E's GRC filing due to timing differences. The RO Model will be updated to incorporate these errata in a future submission.

Workpaper Table 10-20 (Includes PG&E's November 10th Errata Corrections)
Pacific Gas and Electric Company
Exhibit (PG&E-4), Chapter 10, New Business and WRO
MWC 16 - New Business - Applications Deemed Complete (ADC) w/ CAGR

Line No.	Line Description	2020	2021	2022	2023	2024	CAGR	2025	2026	2027	2028	2029	2030	Notes
		Applications Deemed Complete						Forecast Applications Deemed Complete						
1	Base Connects	9,218	11,122	11,529	10,515	11,667	106%	12,689	13,876	15,286	16,957	18,931	21,262	(1)
2	Residential Connects	5,307	6,623	7,301	6,835	8,581	113%	9,666	10,997	12,544	14,342	16,437	18,883	(1)
3	Large	469	730	727	635	428	98%	429	435	445	457	471	489	(1)
4	> 1,000	60	88	91	61	35	87%	31	27	24	21	18	16	(1)
5	500-1000	151	201	158	142	68	82%	56	46	38	31	25	20	(1)
6	200-500	258	441	478	430	323	106%	342	362	383	405	428	453	(1)
7	Small/Med	4,316	5,324	6,000	5,704	6,877	112%	7,725	8,692	9,786	11,024	12,427	14,016	(1)
8	100-200	442	681	916	872	793	116%	918	1,062	1,229	1,422	1,646	1,905	(1)
9	50-100	873	1,234	1,522	1,458	1,596	116%	1,856	2,158	2,509	2,917	3,392	3,944	(1)
10	< 50	3,001	3,409	3,562	3,418	4,479	111%	4,951	5,472	6,048	6,685	7,389	8,167	(1)
11	Short Cycle	522	569	574	493	1,222	124%	1,512	1,870	2,313	2,861	3,539	4,378	(1)
12	< 16	522	569	574	493	1,222	124%	1,512	1,870	2,313	2,861	3,539	4,378	(1)
13	Non-Residential Connects	3,911	4,499	4,228	3,718	3,200	95%	3,023	2,879	2,742	2,615	2,494	2,379	(1)
14	Large	365	447	457	381	206	87%	179	157	137	120	105	93	(1)
15	> 1,000	28	32	22	8	8	73%	6	4	3	2	1	1	(1)
16	500-1000	67	70	77	59	27	80%	22	18	14	11	9	7	(1)
17	200-500	270	345	358	312	170	89%	151	135	120	107	95	85	(1)
18	Small/Med	3,481	3,962	3,708	3,295	2,935	96%	2,805	2,687	2,573	2,466	2,363	2,263	(1)
19	100-200	544	669	773	680	480	97%	465	451	437	424	411	398	(1)
20	50-100	974	1,061	1,082	1,085	827	96%	794	762	731	702	674	647	(1)
21	< 50	1,963	2,232	1,853	1,581	1,622	95%	1,546	1,474	1,405	1,340	1,278	1,218	(1)
22	Short Cycle	65	90	63	44	43	90%	39	35	32	29	26	23	(1)
23	< 16	65	90	63	44	43	90%	39	35	32	29	26	23	(1)
24	PEV	123	369	305	1,136	1,200	106%	1,450	944	1,782	2,686	5,456	15,323	(2)
25	PEV Res	25	275	276	1,482	1,569	106%	1,432	908	1,577	1,893	2,335	2,938	(2)
26	Large	3	47	48	216	117	54%	60	21	19	11	7	4	(2)
27	> 1,000			4	4		0%							(2)
28	500-1000		15	2	32	7	22%	2	-					(2)
29	200-500	3	32	42	180	110	61%	59	21	19	11	7	4	(2)
30	Small/Med	22	227	227	1,261	1,410	112%	1,371	887	1,559	1,882	2,328	2,934	(2)
31	100-200	3	49	76	324	281	87%	214	106	138	120	104	90	(2)
32	50-100	6	64	64	549	499	91%	397	207	281	256	233	212	(2)
33	< 50	13	114	87	497	657	132%	760	575	1,139	1,506	1,991	2,632	(2)
34	Short Cycle		1	1		3	0%							(2)
35	< 16		1	1		3	0%							(2)
36	PEV NonRes (Rule 15/16)	98	94	29	7	6	86%	18	37	205	793	3,121	12,385	(2)
37	Large	45	34	9	3	2	67%	4	4	12	24	48	96	(2)
38	> 1,000	1	1	3	2		0%							(2)
39	500-1000	16	9	1			0%							(2)
40	200-500	28	24	5	1	2	200%	4	4	12	24	48	96	(2)
41	Small/Med	52	60	20	5	4	80%	15	33	193	769	3,073	12,289	(2)
42	100-200	34	28	7	4	1	25%	-	-	-	-	-	-	(2)
43	50-100	15	17	5	1	4	400%	14	32	192	768	3,072	12,288	(2)
44	< 50	3	15	8	1	1	100%	1	1	1	1	1	1	(2)
45	Short Cycle	1					0%							(2)

Workpaper Table 10-20 (Includes PG&E's November 10th Errata Corrections)
Pacific Gas and Electric Company
Exhibit (PG&E-4), Chapter 10, New Business and WRO
MWC 16 - New Business - Applications Deemed Complete (ADC) w/ CAGR

Line No.	Line Description	2020	2021	2022	2023	2024	CAGR	2025	2026	2027	2028	2029	2030	Notes
		Applications Deemed Complete						Forecast Applications Deemed Complete						
46	< 16	1					0%							(2)
47	PEV - Rule 29	15	84	228	456	380	83%	251	132	187	180	176	173	(2)
48	PEV NonRes (Rule 29)	15	84	228	456	380	83%	251	132	187	180	176	173	(2)
49	Large	8	62	149	158	80	51%	39	13	11	7	4	2	(2)
50	> 1,000	1	8	10	12	3	25%	1	-	-	-	-	-	(2)
51	500-1000	2	13	30	42	11	26%	3	1	-	-	-	-	(2)
52	200-500	5	41	109	105	65	62%	35	13	11	7	4	2	(2)
53	Small/Med	7	22	79	293	285	97%	213	119	176	173	172	171	(2)
54	100-200	6	16	55	44	36	82%	25	12	15	12	10	8	(2)
55	50-100	1	2	5	16	18	113%	18	12	20	22	25	28	(2)
56	< 50		4	19	200	197	99%	170	96	141	139	137	135	(2)
57	Short Cycle				1		0%							(2)
58	< 16				1		0%							(2)
59	Grand Total	9,356	11,575	12,062	12,107	13,247		14,390	14,952	17,255	19,823	24,563	36,758	

Notes

Applications Deemed Complete also referred to as ADC

(1) Base Connects are traditional energization projects therefore PG&E applied a 5-yr CAGR to account for variability.

(2) PEV (Plug-in Vehicle) are relatively new energization projects therefore PG&E applied a 2-yr CAGR (2023-2024) to capture the most sufficient data points.

= Cells that were adjusted to reflect decreased PEVs

Adj. Factors	0.875	0.5	0.75
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Workpaper Table 10-20 (Includes PG&E's November 10th Errata Corrections)
Pacific Gas and Electric Company
Exhibit (PG&E-4), Chapter 10, New Business and WRO
MWC 16 - New Business - Applications Deemed Complete (ADC) w/ CAGR

Line No.	Line Description	2020	2021	2022	2023	2024
Applications Deemed Complete						
1	Base Connects	9,218	11,122	11,529	10,515	11,667
2	Residential Connects	5,307	6,623	7,301	6,835	8,581
3	Large	469	730	727	635	428
4	> 1,000	60	88	91	61	35
5	500-1000	151	201	158	142	68
6	200-500	258	441	478	430	323
7	Small/Med	4,316	5,324	6,000	5,704	6,877
8	100-200	442	681	916	872	793
9	50-100	873	1,234	1,522	1,458	1,596
10	< 50	3,001	3,409	3,562	3,418	4,479
11	Short Cycle	522	569	574	493	1,222
12	< 16	522	569	574	493	1,222
13	Non-Residential Connects	3,911	4,499	4,228	3,718	3,200
14	Large	365	447	457	381	206
15	> 1,000	28	32	22	8	8
16	500-1000	67	70	77	59	27
17	200-500	270	345	358	312	170
18	Small/Med	3,481	3,962	3,708	3,295	2,935
19	100-200	544	669	773	680	480
20	50-100	974	1,061	1,082	1,085	827
21	< 50	1,963	2,232	1,853	1,581	1,622
22	Short Cycle	65	90	63	44	43
23	< 16	65	90	63	44	43

24	PEV	123	369	305	1,136	1,200
25	PEV Res	25	275	276	1,482	1,569
26	Large	3	47	48	216	117
27	> 1,000			4	4	
28	500-1000		15	2	32	7
29	200-500	3	32	42	180	110
30	Small/Med	22	227	227	1,261	1,410
31	100-200	3	49	76	324	281
32	50-100	6	64	64	549	499
33	< 50	13	114	87	497	657
34	Short Cycle		1	1		3
35	< 16		1	1		3
36	PEV NonRes (Rule 15/16)	98	94	29	7	6
37	Large	45	34	9	3	2
38	> 1,000	1	1	3	2	
39	500-1000	16	9	1		
40	200-500	28	24	5	1	2
41	Small/Med	52	60	20	5	4
42	100-200	34	28	7	4	1
43	50-100	15	17	5	1	4
44	< 50	3	15	8	1	1
45	Short Cycle	1				
46	< 16	1				

47	PEV - Rule 29	15	84	228	456	380
48	PEV NonRes (Rule 29)	15	84	228	456	380
49	Large	8	62	149	158	80
50	> 1,000	1	8	10	12	3
51	500-1000	2	13	30	42	11
52	200-500	5	41	109	105	65
53	Small/Med	7	22	79	293	285

CAGR
106%
113%
98%
87%
82%
106%
112%
116%
116%
111%
124%
124%
95%
87%
73%
80%
89%
96%
97%
96%
95%
90%
90%

106%
106%
54%
0%
22%
61%
112%
87%
91%
132%
0%
0%
86%
67%
0%
0%
200%
80%
25%
400%
100%
0%
0%

83%
83%
51%
25%
26%
62%
97%

2025	2026	2027	2028	2029	2030	Notes
Forecast Applications Deemed Complete						
12,689	13,876	15,286	16,957	18,931	21,262	(1)
9,666	10,997	12,544	14,342	16,437	18,883	(1)
429	435	445	457	471	489	(1)
31	27	24	21	18	16	(1)
56	46	38	31	25	20	(1)
342	362	383	405	428	453	(1)
7,725	8,692	9,786	11,024	12,427	14,016	(1)
918	1,062	1,229	1,422	1,646	1,905	(1)
1,856	2,158	2,509	2,917	3,392	3,944	(1)
4,951	5,472	6,048	6,685	7,389	8,167	(1)
1,512	1,870	2,313	2,861	3,539	4,378	(1)
1,512	1,870	2,313	2,861	3,539	4,378	(1)
3,023	2,879	2,742	2,615	2,494	2,379	(1)
179	157	137	120	105	93	(1)
6	4	3	2	1	1	(1)
22	18	14	11	9	7	(1)
151	135	120	107	95	85	(1)
2,805	2,687	2,573	2,466	2,363	2,263	(1)
465	451	437	424	411	398	(1)
794	762	731	702	674	647	(1)
1,546	1,474	1,405	1,340	1,278	1,218	(1)
39	35	32	29	26	23	(1)
39	35	32	29	26	23	(1)

1,657	1,888	2,376	3,581	7,273	20,430	(2)
1,636	1,815	2,103	2,524	3,112	3,917	(2)
69	41	25	15	9	6	(2)
						(2)
2	-					(2)
67	41	25	15	9	6	(2)
1,567	1,774	2,078	2,509	3,103	3,911	(2)
244	212	184	160	139	121	(2)
454	413	375	341	310	282	(2)
869	1,149	1,519	2,008	2,654	3,508	(2)
						(2)
						(2)
21	73	273	1,057	4,161	16,513	(2)
4	8	16	32	64	128	(2)
						(2)
4	8	16	32	64	128	(2)
17	65	257	1,025	4,097	16,385	(2)
-	-	-	-	-	-	(2)
16	64	256	1,024	4,096	16,384	(2)
1	1	1	1	1	1	(2)
						(2)
						(2)

287	264	249	239	234	231	(2)
287	264	249	239	234	231	(2)
44	26	15	9	6	4	(2)
1	-	-	-	-	-	(2)
3	1	-	-	-	-	(2)
40	25	15	9	6	4	(2)
243	238	234	230	228	227	(2)

54	100-200	6	16	55	44	36
55	50-100	1	2	5	16	18
56	< 50		4	19	200	197
57	Short Cycle				1	
58	< 16				1	

59	Grand Total	9,356	11,575	12,062	12,107	13,247
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82%
113%
99%
0%
0%

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29	24	20	16	13	11	(2)
20	23	26	29	33	37	(2)
194	191	188	185	182	179	(2)
						(2)
						(2)

14,633	16,028	17,911	20,777	26,438	41,923
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Notes

Applications Deemed Complete also referred to as ADC

- (1) Base Connects are traditional energization projects therefore PG&E applied a 5-yr CAGR to account for variability.
- (2) PEV (Plug-in Vehicle) are relatively new energization projects therefore PG&E applied a 2-yr CAGR (2023-2024) to capture the most sufficient data points.

Workpaper Table 10-18 (Cal Advocates' PEV Adjustments)
Pacific Gas and Electric Company
Exhibit (PG&E-4), Chapter 10, New Business and WRO
New Business Capital Summary
(Thousands of Dollars)

Line No.	Line Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Recorded					Forecast					
Table 1: 2027 GRC Forecast Capital Expenditures (000's)												
1	Base Connects	\$ 404,943	\$ 483,039	\$ 620,598	\$ 791,752	\$ 835,388	\$ 514,420	\$ 262,094	\$ 620,972	\$ 638,203	\$ 655,372	\$ 673,178
2	Residential Connects	\$ 186,952	\$ 244,229	\$ 344,735	\$ 477,607	\$ 528,996	\$ 305,869	\$ 168,735	\$ 468,545	\$ 491,423	\$ 517,266	\$ 540,721
3	Non-Residential Connects	\$ 217,991	\$ 238,810	\$ 275,863	\$ 314,146	\$ 306,391	\$ 208,551	\$ 93,360	\$ 152,427	\$ 146,780	\$ 138,106	\$ 132,457
4	PEV - Rule	\$ 19,231	\$ 21,398	\$ 27,206	\$ 29,846	\$ 84,879	\$ 44,393	\$ 22,401	\$ 82,099	\$ 89,892	\$ 102,332	\$ 108,008
5	PEV Res	\$ 995	\$ 2,668	\$ 3,005	\$ 17,939	\$ 80,305	\$ 41,684	\$ 21,037	\$ 80,460	\$ 88,211	\$ 100,605	\$ 106,235
6	PEV NonRes (Rule 15/16)	\$ 18,235	\$ 18,730	\$ 24,201	\$ 11,906	\$ 4,574	\$ 2,709	\$ 1,364	\$ 1,639	\$ 1,681	\$ 1,726	\$ 1,773
7	PEV - Rule 29	\$ 11	\$ 86	\$ 4,264	\$ 40,812	\$ 96,244	\$ 343,934	\$ 328,107	\$ 341,220	\$ 355,816	\$ 363,238	\$ 369,287
8	PEV NonRes (Rule 29)	\$ 11	\$ 86	\$ 4,264	\$ 40,812	\$ 96,244	\$ 343,934	\$ 328,107	\$ 341,220	\$ 355,816	\$ 363,238	\$ 369,287
9	Transformer Purchases	\$ 107,283	\$ 111,557	\$ 159,115	\$ 239,879	\$ 250,147	\$ 335,599	\$ 374,653	\$ 106,122	\$ 108,881	\$ 111,810	\$ 114,851
10	Transformer Scrapping	\$ 4,739	\$ 5,416	\$ 5,710	\$ 6,432	\$ 6,090	\$ 2,430	\$ 5,744	\$ 8,310	\$ 8,526	\$ 8,755	\$ 8,994
11	Total 2027 GRC Capital Expenditures	\$ 536,207	\$ 621,496	\$ 816,893	\$ 1,108,720	\$ 1,272,748	\$ 1,240,776	\$ 992,999	\$ 1,158,722	\$ 1,201,318	\$ 1,241,506	\$ 1,274,318

PG&E's Updated Forecasts
Cal Advocates' Adjustments

\$ 1,240,776	\$ 992,999	\$ 1,221,133	\$ 1,252,882	\$ 1,286,585	\$ 1,321,580
\$ -	\$ -	\$ (62,411)	\$ (51,564)	\$ (45,078)	\$ (47,262)

Workpaper Table 10-18 (Includes PG&E's November 10th Errata Correction)

Pacific Gas and Electric Company
 Exhibit (PG&E-4), Chapter 10, New Business and WRO
 New Business Capital Summary
 (Thousands of Dollars)

Line No.	Line Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Recorded					Forecast					
Table 1: 2027 GRC Forecast Capital Expenditures (000's)												
1	Base Connects	\$ 404,943	\$ 483,039	\$ 620,598	\$ 791,752	\$ 835,388	\$ 514,420	\$ 262,094	\$ 627,022	\$ 643,324	\$ 660,630	\$ 678,599
2	Residential Connects	\$ 186,952	\$ 244,229	\$ 344,735	\$ 477,607	\$ 528,996	\$ 305,869	\$ 168,735	\$ 472,550	\$ 495,624	\$ 521,687	\$ 545,344
3	Non-Residential Connects	\$ 217,991	\$ 238,810	\$ 275,863	\$ 314,146	\$ 306,391	\$ 208,551	\$ 93,360	\$ 154,472	\$ 147,701	\$ 138,942	\$ 133,255
4	PEV - Rule	\$ 19,231	\$ 21,398	\$ 27,206	\$ 29,846	\$ 84,879	\$ 44,393	\$ 22,401	\$ 132,620	\$ 130,343	\$ 136,000	\$ 143,529
5	PEV Res	\$ 995	\$ 2,668	\$ 3,005	\$ 17,939	\$ 80,305	\$ 41,684	\$ 21,037	\$ 130,982	\$ 128,662	\$ 134,273	\$ 141,756
6	PEV NonRes (Rule 15/16)	\$ 18,235	\$ 18,730	\$ 24,201	\$ 11,906	\$ 4,574	\$ 2,709	\$ 1,364	\$ 1,639	\$ 1,681	\$ 1,726	\$ 1,773
7	PEV - Rule 29	\$ 11	\$ 86	\$ 4,264	\$ 40,812	\$ 96,244	\$ 343,934	\$ 328,107	\$ 341,220	\$ 355,816	\$ 363,238	\$ 369,287
8	PEV NonRes (Rule 29)	\$ 11	\$ 86	\$ 4,264	\$ 40,812	\$ 96,244	\$ 343,934	\$ 328,107	\$ 341,220	\$ 355,816	\$ 363,238	\$ 369,287
9	Transformer Purchases	\$ 107,283	\$ 111,557	\$ 159,115	\$ 239,879	\$ 250,147	\$ 335,599	\$ 374,653	\$ 111,864	\$ 114,773	\$ 117,860	\$ 121,066
10	Transformer Scrapping	\$ 4,739	\$ 5,416	\$ 5,710	\$ 6,432	\$ 6,090	\$ 2,430	\$ 5,744	\$ 8,407	\$ 8,626	\$ 8,858	\$ 9,099
11	Total 2027 GRC Capital Expenditures	\$ 536,207	\$ 621,496	\$ 816,893	\$ 1,108,720	\$ 1,272,748	\$ 1,240,776	\$ 992,999	\$ 1,221,133	\$ 1,252,882	\$ 1,286,585	\$ 1,321,580

Workpaper Table 15-32
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 15, OH Maintenance and Poles
Capital Summary by Activity - MWC 07
(Thousands of Dollars)

Line No.	Costs	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Notes	Reference
1														
2	Tree Connections Assessment	07A	\$ -	\$ 768	\$ 779	\$ (1,367)	\$ (174)	\$ -	\$ -	\$ -	\$ -	\$ -		
3	Tree Attachments	07C	\$ 1,513	\$ 9,530	\$ 24,746	\$ 15,746	\$ 10,953	\$ 25,983	\$ 39,596	\$ 37,880	\$ 37,417	\$ 38,369	\$ 23,502	WP 15-41
4	Pole Replacement Program	07D	\$ 238,845	\$ 381,564	\$ 464,836	\$ 333,757	\$ 536,300	\$ 593,689	\$ 516,337	\$ 1,234,123	\$ 1,218,938	\$ 1,315,504	\$ 1,249,243	WP 15-42
5	Steel Lattice Structures	07L	\$ 116	\$ 657	\$ -	\$ 8	\$ (0)	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250	WP 15-44
6	Overloaded Poles	07O	\$ 11,143	\$ 19,437	\$ 16,367	\$ 12,430	\$ 8,031	\$ 25,867	\$ 10,010	\$ 9,788	\$ 10,088	\$ 10,331	\$ 6,417	WP 15-43
7	Pole Test & Treat	07R	\$ -	\$ -	\$ -	\$ -	\$ (258)	\$ -	\$ -	\$ 41,398	\$ 41,398	\$ 41,398	\$ 41,398	(1) WP 15-46
8	Pole Reinforcement	07R	\$ -	\$ -	\$ -	\$ -	\$ 10,789	\$ 10,592	\$ 10,592	\$ 10,592	\$ 10,592	\$ 10,592	\$ 10,592	(2) WP 15-45
9	Joint Pole		\$ (3,455)	\$ 3,111	\$ 272	\$ 426	\$ (2,023)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
10	Joint Pole Reimbursements	07G	\$ (4)	\$ 40	\$ 14	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
11	Standard Cost Variance	07#	\$ (3,451)	\$ 3,071	\$ 258	\$ 426	\$ (2,023)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	(3)
12	Subtotal - MWC 07		\$ 248,163	\$ 415,068	\$ 507,000	\$ 361,001	\$ 563,618	\$ 656,380	\$ 576,785	\$ 1,334,030	\$ 1,318,683	\$ 1,416,444	\$ 1,331,402	

Notes

- (1) This work was previously recorded in GAA.
- (2) This work was previously recorded in GAD.
- (3) Standard Cost Variance is not forecasted.

Workpaper Table 15-34
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 15, OH Maintenance and Poles
Unit Cost and Forecast Details: MAT 07D

Line No.

1	MAT Code	07D
2	GRC Ch.	15 - OH Maintenance and Poles

4	MAT Code Definition	Pole Replacement – Replace poles identified as deteriorated/damaged and in need of replacement. Units measured: Number of poles. This program relates to safety, reliability, or maintenance because it actively works to determine whether poles are in good condition and prevents premature failure. In addition, this program enhances overall system safety by replacing poles identified to be nearing the end of their service life, prior to premature failure.
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Risk ID	Type	Name
DOVHD-C014	Control	Pole Replacement
DOVHD-M023	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)
WEPSS-M004	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)
WLDLFR-C014	Control	Pole Replacement
WLDLFR-M023	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)

13	Program Area	Maintenance and Compliance
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15	Forecast Method	Unit cost
16	Unit of Measure	# of Poles Replaced
17	Unit Cost (2027)	\$ 24,994

19	Unit Cost Forecast Basis	Unit cost is based off of distribution of bundling categories (individual tags, isolation zone bundles and mega bundles). See supplemental WP 15-68 on bundling approach for MAT 07D. The transformers were previously included as part of MAT 16O.
20	Unit Forecast Basis	Units to be completed are forecasted based on the remaining past due units, forecasted future find rates from inspection programs, and the anticipated quantities of inspections to be completed per year per program.

Units	Year	Recorded Costs & Units (A)				
		2020	2021	2022	2023	2024
23	Recorded Costs	\$ 238,845,319	\$ 381,564,365	\$ 464,836,419	\$ 333,756,728	\$ 536,300,201
24	No. of Units	9,607	15,584	18,142	13,786	17,546
25	Unit Cost	\$ 24,862	\$ 24,484	\$ 25,622	\$ 24,210	\$ 30,565

Reference

Calculated - Line 24 / Line 25

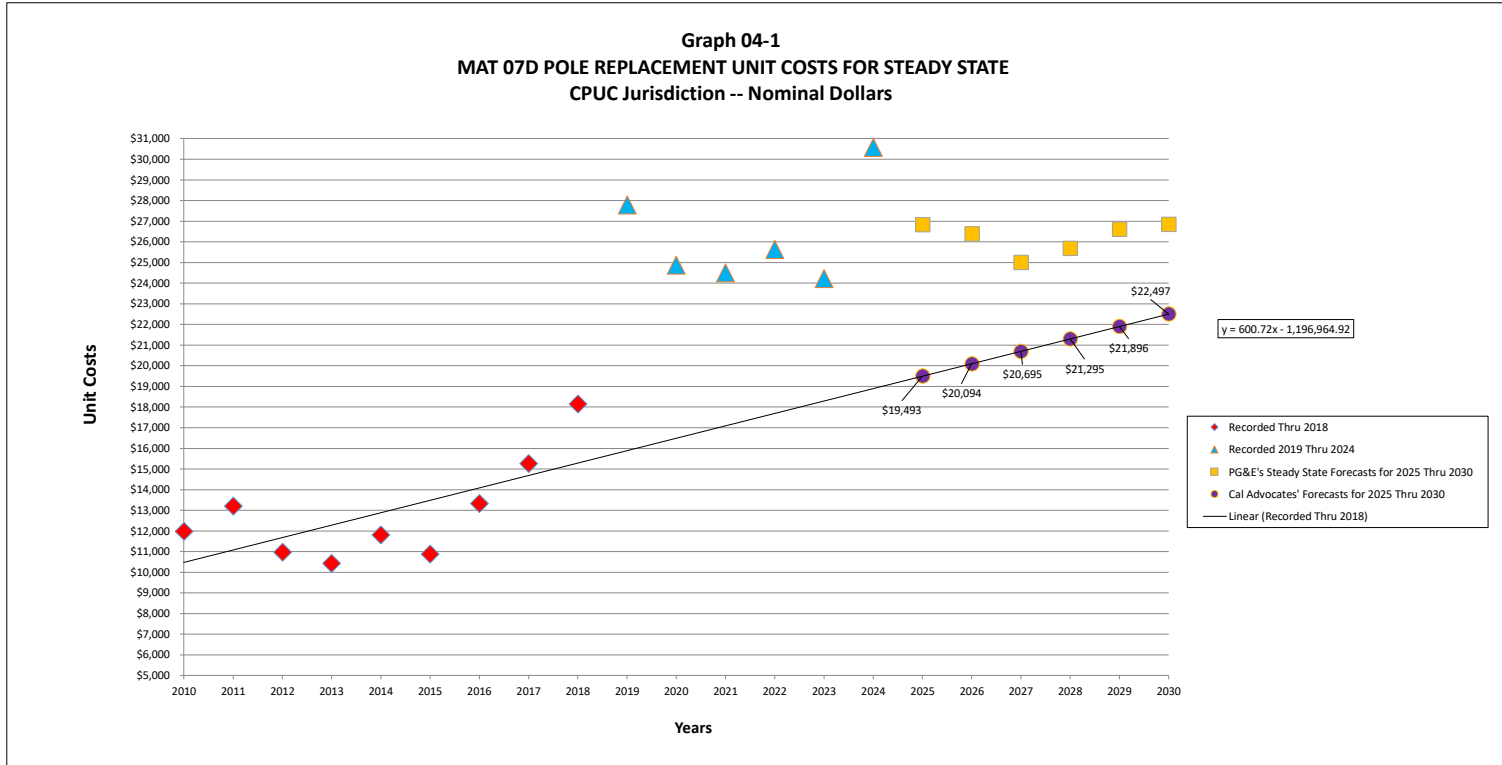
Units	Year	Steady State Forecast Costs & Units (A)					
		2025	2026	2027	2028	2029	2030
29	Forecast Costs	\$ 244,475,100	\$ 250,613,088	\$ 824,042,299	\$ 805,104,386	\$ 897,686,018	\$ 1,093,012,541
30	No. of Units	9,114	9,504	32,969	31,357	33,732	40,710
31	Unit Cost	\$ 26,825	\$ 26,370	\$ 24,994	\$ 25,675	\$ 26,613	\$ 26,849

Calculated - Line 31 * Line 32

Units	Year	Backlog Open Tag Reduction Forecast Costs & Units (A)					
		2025	2026	2027	2028	2029	2030
34	Forecast Costs	\$ 349,213,650	\$ 265,724,100	\$ 265,724,100	\$ 265,724,100	\$ 265,724,100	\$ -
35	No. of Units	14,715	11,197	11,197	11,197	11,197	-
36	Unit Cost	\$ 23,732	\$ 23,732	\$ 23,732	\$ 23,732	\$ 23,732	\$ -

Calculated - Line 37 * Line 38

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Recorded Thru 2018	\$11,965	\$13,186	\$10,959	\$10,422	\$11,797	\$10,867	\$13,323	\$15,260	\$18,127													
Recorded 2019 Thru 2024										\$27,768	\$24,862	\$24,484	\$25,622	\$24,210	\$30,565							
PG&E's Steady State Forecasts for 2025 Thru 2030																\$26,825	\$26,370	\$24,994	\$25,675	\$26,613	\$26,849	
Cal Advocates' Forecasts for 2025 Thru 2030																\$19,493	\$20,094	\$20,695	\$21,295	\$21,896	\$22,497	



- a. Please see the table below for comparable recorded unit costs for each of the years 2010 through 2019. PG&E did not provide a MAT code forecast for pole replacement work prior to the 2017 GRC. Historical costs below reflect 07D specifically for years

	Source	Year	Unit Cost
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2010	\$11,965
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2011	\$13,186
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2012	\$10,959
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2013	\$10,422
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2014	\$11,797
A.18-12-009, Exhibit (PG&E-4), WP 8-17 line 21 (units), 2015 Budget Compliance Report (dollars)		2015	\$10,867
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2016	\$13,323
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2017	\$15,260
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2018	\$18,127
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2019	\$27,768

PG&E implemented a new cost allocation methodology in 2016. Unit costs provided prior to 2016 reflect the previous methodology.

**Workpaper Table 15-34
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 15, OH Maintenance and Poles
Unit Cost and Forecast Details: MAT 07D**

Line No.

1	MAT Code	07D
2	GRC Ch.	15 - OH Maintenance and Poles

4	MAT Code Definition	Pole Replacement – Replace poles identified as deteriorated/damaged and in need of replacement. Units measured: Number of poles. This program relates to safety, reliability, or maintenance because it actively works to determine whether poles are in good condition and prevents premature failure. In addition, this program enhances overall system safety by replacing poles identified to be nearing the end of their service life, prior to premature failure.
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Risk ID	Type	Name
DOVHD-C014	Control	Pole Replacement
DOVHD-M023	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)
WEPSS-M004	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)
WLDFR-C014	Control	Pole Replacement
WLDFR-M023	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)

Program Area	Maintenance and Compliance
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Forecast Method	Unit cost
Unit of Measure	# of Poles Replaced
Unit Cost (2027)	\$ 24,994

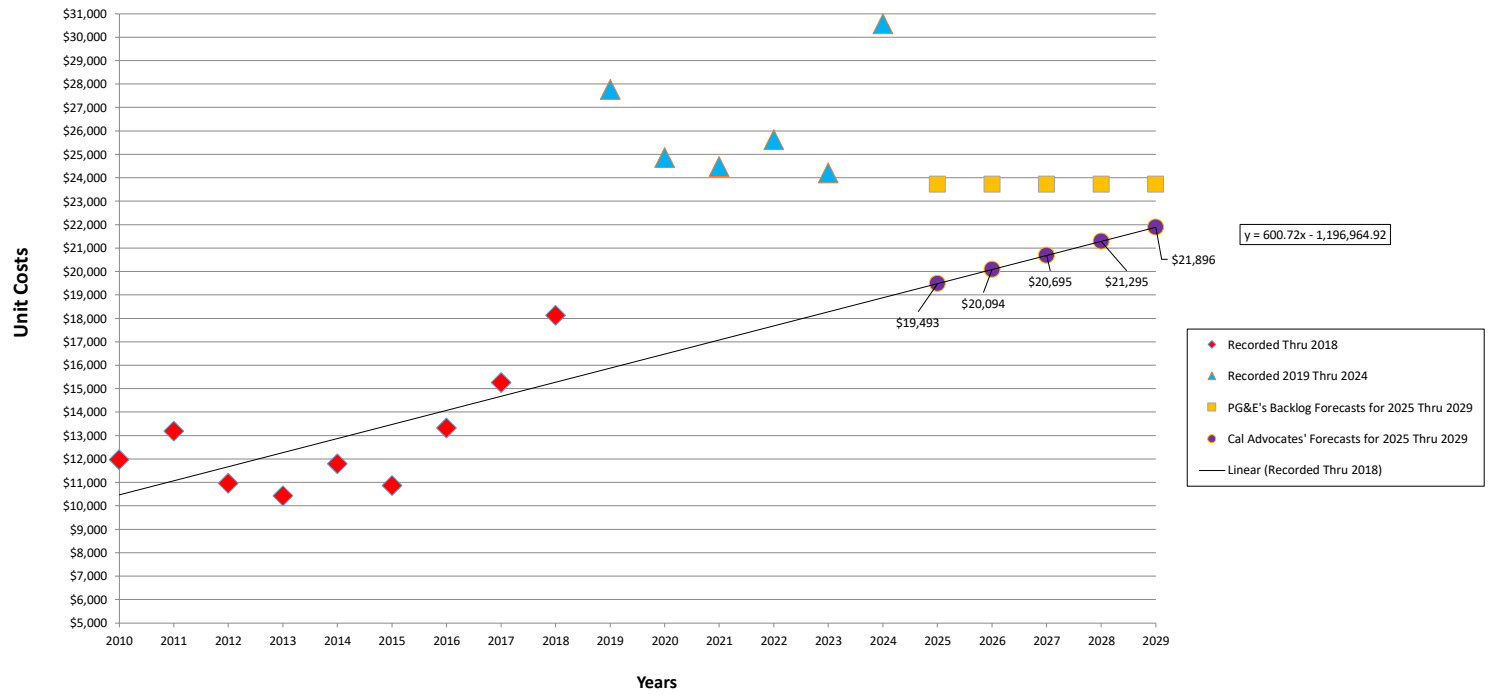
19	Unit Cost Forecast Basis	Unit cost is based off of distribution of bundling categories (individual tags, isolation zone bundles and mega bundles). See supplemental WP 15-68 on bundling approach for MAT 07D. The transformers were previously included as part of MAT 160.
20	Unit Forecast Basis	Units to be completed are forecasted based on the remaining past due units, forecasted future find rates from inspection programs, and the anticipated quantities of inspections to be completed per year per program.

Units	Year	Recorded Costs & Units (A)					Reference
		2020	2021	2022	2023	2024	
Recorded Costs		\$ 238,845,319	\$ 381,564,365	\$ 464,836,419	\$ 333,756,728	\$ 536,300,201	
No. of Units		9,607	15,584	18,142	13,786	17,546	
Unit Cost		\$ 24,862	\$ 24,484	\$ 25,622	\$ 24,210	\$ 30,565	Calculated - Line 24 / Line 25

Units	Year	Steady State Forecast Costs & Units (A)						Reference
		2025	2026	2027	2028	2029	2030	
Cal Advocates' Forecast Costs		\$ 177,656,905	\$ 190,964,049	\$ 682,285,598	\$ 667,762,792	\$ 738,583,799	\$ 915,830,412	Calculated - Line 31 * Line 33
No. of Units		9,114	9,504	32,969	31,357	33,732	40,710	
Original Unit Cost		\$ 26,825	\$ 26,370	\$ 24,994	\$ 25,675	\$ 26,613	\$ 26,849	
Unit Cost Trend of 2010 Thru 2018		\$ 19,493	\$ 20,094	\$ 20,695	\$ 21,295	\$ 21,896	\$ 22,497	
Forecast Adj.		\$ 66,818,195	\$ 59,649,039	\$ 141,756,701	\$ 137,341,594	\$ 159,102,219	\$ 177,182,129	\$ 741,849,877 = 2025 Thru 2030 Adj.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Recorded Thru 2018	\$11,965	\$13,186	\$10,959	\$10,422	\$11,797	\$10,867	\$13,323	\$15,260	\$18,127											
Recorded 2019 Thru 2024										\$27,768	\$24,862	\$24,484	\$25,622	\$24,210	\$30,565					
PG&E's Backlog Forecasts for 2025 Thru 2029																\$23,732	\$23,732	\$23,732	\$23,732	\$23,732
Cal Advocates' Forecasts for 2025 Thru 2029																\$19,493	\$20,094	\$20,695	\$21,295	\$21,896

Graph 04-2
MAT 07D POLE REPLACEMENT UNIT COSTS FOR BACKLOG
CPUC Jurisdiction -- Nominal Dollars



- a. Please see the table below for comparable recorded unit costs for each of the years 2010 through 2019. PG&E did not provide a MAT code forecast for pole replacement work prior to the 2017 GRC. Historical costs below reflect 07D specifically for years

	Source	Year	Unit Cost
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2010	\$11,965
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2011	\$13,186
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2012	\$10,959
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2013	\$10,422
A.15-09-001, Exhibit (PG&E-4), WP 8-16 line 21		2014	\$11,797
A.18-12-009, Exhibit (PG&E-4), WP 8-17 line 21 (units), 2015 Budget Compliance Report (dollars)		2015	\$10,867
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2016	\$13,323
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2017	\$15,260
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2018	\$18,127
A.21-06-021, Exhibit (PG&E-4), WP 12-22 line 14		2019	\$27,768

PG&E implemented a new cost allocation methodology in 2016. Unit costs provided prior to 2016 reflect the previous methodology.

**Workpaper Table 15-34
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 15, OH Maintenance and Poles
Unit Cost and Forecast Details: MAT 07D**

Line No.

1	MAT Code	07D
2	GRC Ch.	15 - OH Maintenance and Poles

4	MAT Code Definition	Pole Replacement – Replace poles identified as deteriorated/damaged and in need of replacement. Units measured: Number of poles. This program relates to safety, reliability, or maintenance because it actively works to determine whether poles are in good condition and prevents premature failure. In addition, this program enhances overall system safety by replacing poles identified to be nearing the end of their service life, prior to premature failure.
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Risk ID	Type	Name	
6	DOVHD-C014	Control	Pole Replacement
7	DOVHD-M023	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)
8	WEPSS-M004	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)
9	WLDLFR-C014	Control	Pole Replacement
10	WLDLFR-M023	Mitigation	Backlog Open Tag Reduction - Distribution (Pole Backlog)

13	Program Area	Maintenance and Compliance
15	Forecast Method	Unit cost
16	Unit of Measure	# of Poles Replaced
17	Unit Cost (2027)	\$ 24,994

19	Unit Cost Forecast Basis	Unit cost is based off of distribution of bundling categories (individual tags, isolation zone bundles and mega bundles). See supplemental WP 15-68 on bundling approach for MAT 07D. The transformers were previously included as part of MAT 160.
20	Unit Forecast Basis	Units to be completed are forecasted based on the remaining past due units, forecasted future find rates from inspection programs, and the anticipated quantities of inspections to be completed per year per program.

Units	Recorded Costs & Units (A)						Reference	
Year	2020	2021	2022	2023	2024			
24	Recorded Costs	\$ 238,845,319	\$ 381,564,365	\$ 464,836,419	\$ 333,756,728	\$ 536,300,201		
25	No. of Units	9,607	15,584	18,142	13,786	17,546		
26	Unit Cost	\$ 24,862	\$ 24,484	\$ 25,622	\$ 24,210	\$ 30,565	Calculated - Line 24 / Line 25	
Units	Steady State Forecast Costs & Units (A)						Reference	
Year	2025	2026	2027	2028	2029	2030		
30	Forecast Costs	\$ 244,475,100	\$ 250,613,088	\$ 824,042,299	\$ 805,104,386	\$ 897,686,018	\$ 1,093,012,541	Calculated - Line 31 * Line 32
31	No. of Units	9,114	9,504	32,969	31,357	33,732	40,710	
32	Unit Cost	\$ 26,825	\$ 26,370	\$ 24,994	\$ 25,675	\$ 26,613	\$ 26,849	
Units	Backlog Open Tag Reduction Forecast Costs & Units (A)						Reference	
Year	2025	2026	2027	2028	2029	2030		
36	Cal Advocates' Forecast Costs	\$ 286,840,672	\$ 224,990,279	\$ 231,716,540	\$ 238,442,802	\$ 245,169,064	-	Calculated - Line 37 * Line 39
37	No. of Units	14,715	11,197	11,197	11,197	11,197	-	
38	Original Unit Cost	\$ 23,732	\$ 23,732	\$ 23,732	\$ 23,732	\$ 23,732	-	
39	Unit Cost Trend of 2010 Thru 2018	\$ 19,493	\$ 20,094	\$ 20,695	\$ 21,295	\$ 21,896	-	
40	Forecast Adj.	\$ 62,372,978	\$ 40,733,821	\$ 34,007,560	\$ 27,281,298	\$ 20,555,036	-	\$ 184,950,692 = 2025 Thru 2029 Adj.

1 **D. Capital Cost Escalation**

2 Witnesses were provided the capital cost escalation rates shown below in
 3 Table 15-2 as guidance.⁵ Alternatively, for major work categories that are not
 4 aligned with the following rates, escalation factors have been forecasted by the
 5 respective subject matter witness using their best professional judgement.

Year	Escalation Rates	2AA Unit Costs
2023 (Adopted)	-	\$6,806
2024	3.40%	\$7,037
2025	3.40%	\$7,277
2026	1.60%	\$7,393
2027	1.00%	\$7,467
2028	1.50%	\$7,579
2029	1.60%	\$7,700
2030	1.70%	\$7,831

**TABLE 15-2
 (CAPITAL ESCALATION RATES, 2025-2030)**

Line No	Year	Electric					Gas			Common Plant
		Electric Dist.	Electric Trans.	Nuclear Gen.	Hydro Gen.	Fossil Gen.	Gas Dist.	Gas Trans.	Gas Stor.	
1	2025	3.4%	0.2%	1.4%	(0.9)%	1.5%	0.1%	(1.5)%	(0.2)%	2.3%
2	2026	1.6%	(0.3)%	0.5%	0.9%	0.9%	0.2%	1.3%	0.2%	2.7%
3	2027	1.0%	(0.5)%	0.2%	1.0%	0.9%	0.6%	1.5%	0.4%	2.7%
4	2028	1.5%	0.3%	0.5%	1.1%	0.7%	0.6%	2.1%	1.0%	2.6%
5	2029	1.6%	0.9%	0.9%	1.3%	0.9%	0.8%	2.2%	1.3%	2.5%
6	2030	1.7%	1.3%	1.3%	1.9%	1.2%	1.1%	2.1%	1.5%	2.6%

Findings of Fact 160 and 161 from D.23-11-069

Section 4.11.4 Overhead Preventive Maintenance and Equipment

160. PG&E's forecast for MAT 2AA Overhead Notifications Program is not persuasive because PG&E has not addressed how its forecast reflects its plans to reduce costs by hiring more employees and completing work with less costly overtime and contract labor.

161. Cal Advocates recommends 2023 forecasted expense for the MAT 2AA Overhead Notifications Program of \$133.0 million is persuasive using a lower unit cost of \$6,806 per notification and use of less overtime labor and fewer outside contractors.

CONSTRUCTION COST ESCALATION RATES - 2023 GRC

Line No.	DATE	Electric Distribution	Nuclear Generator	Hydro Generator	Fossil Generator	Gas Distributio	Common Plant
12	2017	3.28%	0.20%	1.56%	0.48%	2.59%	0.33%
13		(C12/C11)-1	(D12/D11)	(E12/E11)	(F12/F11)	(G12/G11)	(H12/H11)-1
14	2018	3.07%	1.86%	1.98%	2.25%	2.41%	2.72%
15		(C13/C12)-1	(D13/D12)	(E13/E12)	(F13/F12)	(G13/G12)	(H13/H12)-1
16	2019	5.80%	4.99%	4.64%	4.04%	3.07%	3.64%
17		(C14/C13)-1	(D14/D13)	(E14/E13)	(F14/F13)	(G14/G13)	(H14/H13)-1
18	2020	3.26%	1.55%	2.09%	1.91%	1.93%	3.45%
19		(C15/C14)-1	(D15/D14)	(E15/E14)	(F15/F14)	(G15/G14)	(H15/H14)-1
20	2021	2.81%	2.09%	2.18%	2.14%	1.08%	2.52%
21		(C16/C15)-1	(D16/D15)	(E16/E15)	(F16/F15)	(G16/G15)	(H16/H15)-1
22	2022	2.62%	1.91%	2.12%	1.73%	1.72%	2.86%
23		(C17/C16)-1	(D17/D16)	(E17/E16)	(F17/F16)	(G17/G16)	(H17/H16)-1
24	2023	2.72%	2.11%	2.17%	2.02%	2.27%	3.36%
25		(C18/C17)-1	(D18/D17)	(E18/E17)	(F18/F17)	(G18/G17)	(H18/H17)-1
26	2024	2.66%	2.23%	2.24%	2.19%	2.55%	3.94%
27		(C19/C18)-1	(D19/D18)	(E19/E18)	(F19/F18)	(G19/G18)	(H19/H18)-1
28	2025	2.70%	2.18%	2.22%	2.13%	2.29%	3.79%
29		(C20/C19)-1	(D20/D19)-1	(E20/E19)-1	(F20/F19)-1	(G20/G19)-1	(H20/H19)-1
30	2026	2.74%	2.17%	2.24%	2.14%	2.26%	3.75%
31		(C21/C20)-1	(D21/D20)	(E21/E20)	(F21/F20)	(G21/G20)	(H21/H20)-1

Workpaper Table 15-25
Pacific Gas and Electric Company
2027 General Rate Case
Exhibit (PG&E-4), Chapter 15, OH Maintenance and Poles
Unit Cost and Forecast Details: MAT 2AA

Line No.

1	MAT Code	2AA
2	GRC Ch.	15 - OH Maintenance and Poles

4	MAT Code Definition	OH General Replacement – Replace deteriorated OH facilities that are not an imminent hazard and have not caused an outage. Facilities include crossarms, leaking transformers, and conductor. Units measured: Number of notifications. This program relates to safety, reliability, or maintenance because it addresses a non-conformance identified by preventative maintenance programs such as inspections and patrols, as well as internal operational processes.
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Risk ID	Type	Name	
7	DOVHD-C020	Control	Distribution Replacements [2AA]
8	DOVHD-M024	Mitigation	Backlog Open Tag Reduction - Distribution (Capital) [2AA],Distribution Replacements [2AA]
9	WEPSS-M005	Mitigation	Backlog Open Tag Reduction - Distribution (Capital) [2AA],Distribution Replacements [2AA]
10	WLDFR-C020	Control	Distribution Replacements [2AA]
11	WLDFR-M024	Mitigation	Backlog Open Tag Reduction - Distribution (Capital) [2AA],Distribution Replacements [2AA]

13	Program Area	Maintenance and Compliance
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15	Forecast Method	Unit cost
16	Unit of Measure	# of Notifications Completed
17	Unit Cost (2027)	\$ 13,594

19	Unit Cost Forecast Basis	Unit cost is based off of distribution of bundling categories (individual tags, isolation zone bundles and mega bundles). See supplemental WP 15-67 on bundling approach for MAT 2AA.
20	Unit Forecast Basis	Units to be completed are forecasted based on the remaining past due units, forecasted future find rates from inspection programs, and the anticipated quantities of inspections to be completed per year per program.

Year	Recorded Costs & Units (A)					
	2020	2021	2022	2023	2024	
24	Recorded Costs	\$ 179,701,809	\$ 262,105,019	\$ 254,749,842	\$ 291,797,325	\$ 247,957,070
25	No. of Units	13,716	20,340	17,586	20,331	17,825
26	Unit Cost	\$ 13,102	\$ 12,886	\$ 14,486	\$ 14,352	\$ 13,911

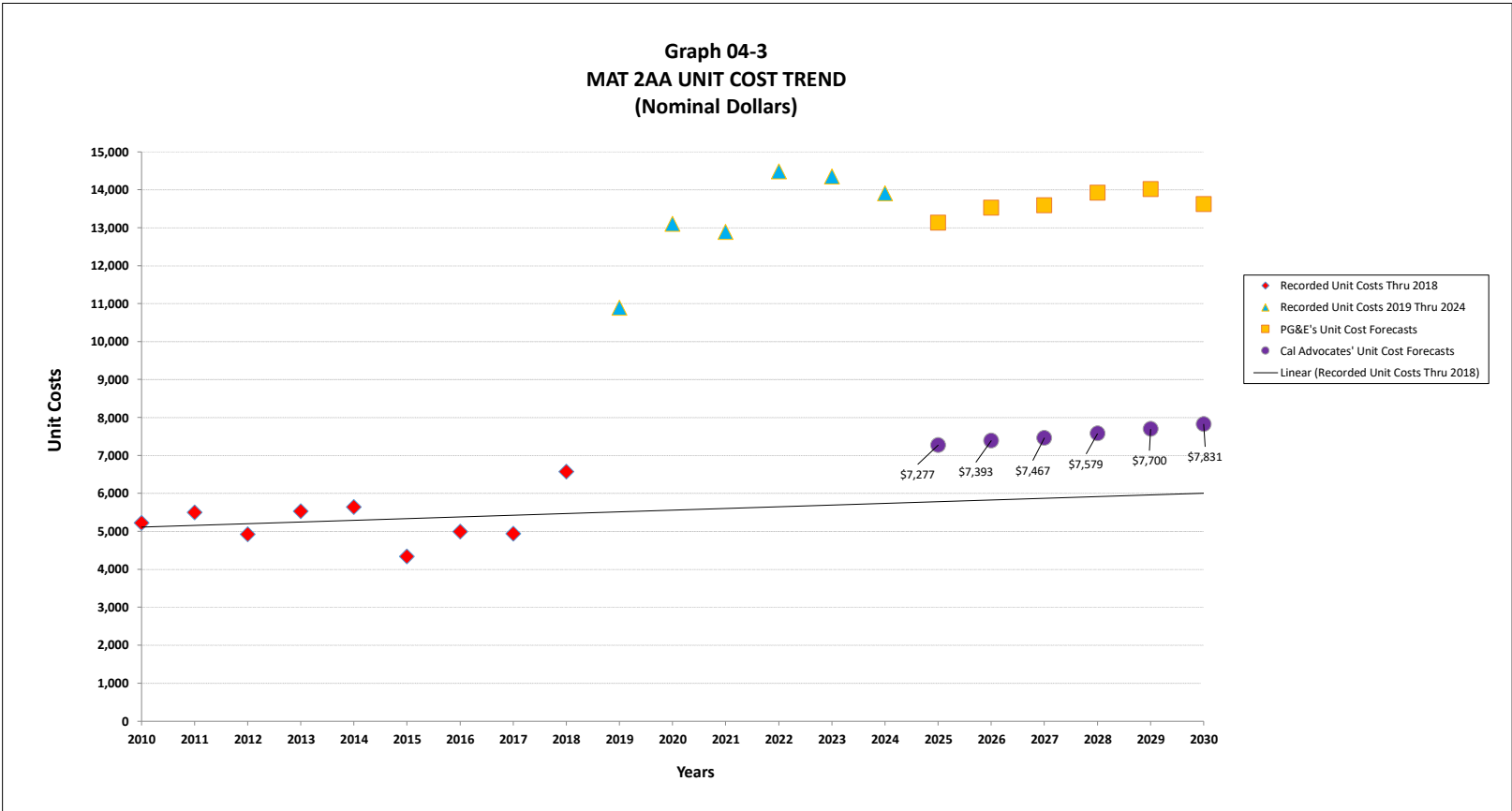
Reference
 Calculated - Line 24 / Line 25

Year	Forecast Costs & Units (A)						
	2025	2026	2027	2028	2029	2030	
30	PG&E's Forecast Costs	\$ 225,359,362	\$ 248,228,130	\$ 498,704,221	\$ 636,450,238	\$ 650,177,065	\$ 1,040,833,903
31	No. of Units	17,160	18,354	36,685	45,715	46,387	76,407
32	PG&E's Unit Cost	\$ 13,133	\$ 13,525	\$ 13,594	\$ 13,922	\$ 14,016	\$ 13,622
	Cal Advocates' Unit Cost	\$ 7,277	\$ 7,393	\$ 7,467	\$ 7,579	\$ 7,700	\$ 7,831
	Cal Advocates' Forecast Costs	\$ 124,869,142	\$ 135,689,441	\$ 273,929,267	\$ 346,472,587	\$ 357,190,587	\$ 598,359,445
	Cal Advocates' Adjustments	\$ 100,490,220	\$ 112,538,689	\$ 224,774,954	\$ 289,977,651	\$ 292,986,479	\$ 442,474,458

Calculated - Line 31 * Line 32

Notes
 (A) Cost calculations of units and unit costs displayed in workpapers may differ from recorded and forecasted amounts due to rounding.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Recorded Unit Costs Thru 2018	\$5,219	\$5,499	\$4,923	\$5,530	\$5,637	\$4,339	\$4,990	\$4,938	\$6,570													
Recorded Unit Costs 2019 Thru 2024										\$10,889	\$13,102	\$12,886	\$14,486	\$14,352	\$13,911							
PG&E's Unit Cost Forecasts																\$13,133	\$13,525	\$13,594	\$13,922	\$14,016	\$13,622	
Cal Advocates' Unit Cost Forecasts																\$7,277	\$7,393	\$7,467	\$7,579	\$7,700	\$7,831	



Please see the table below for comparable recorded unit costs for MAT 2AA for each of the years 2010 through 2019. PG&E implemented a new cost allocation methodology in 2016. Unit costs prior to 2016 reflect the previous methodology, with the exception of

year 2015.

Source	Year	Unit Cost (\$s)
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2010	\$5,219
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2011	\$5,499
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2012	\$4,923
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2013	\$5,530
A.15-09-001, Exhibit (PG&E-4), WP 6-27 line 11	2014	\$5,637
A.18-12-009, Exhibit (PG&E-4), WP 6-36 line 10	2015	\$4,339
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2016	\$4,990
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2017	\$4,938
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2018	\$6,570
A.21-06-021, Exhibit (PG&E-4), WP 11-36 line 14	2019	\$10,889