CPUC Docket: R.23-01-007
Exhibit Number: TURN-1
Witness: William A. Monsen

PREPARED TESTIMONY OF WILLIAM A. MONSEN

ADDRESSING COSTS OF THE DIABLO CANYON POWER PLANT

PUBLIC VERSION
REDACTED

Submitted on Behalf of

THE UTILITY REFORM NETWORK

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June 30, 2023

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DIRECT TESTIMONY OF WILLIAM A. MONSEN
ON BEHALF OF THE UTILITY REFORM NETWORK
ADDRESSING COSTS OF THE DIABLO CANYON POWER PLANT

I. Introduction and Summary of Findings and Recommendation

Q. Please state your name, position and business address.

A. My name is William A. Monsen. I am a Principal Consultant at MRW & Associates, LLC (MRW). My business address is 1736 Franklin Street, Suite 700, Oakland, California.

Q. Please describe you background, experience and expertise?

A. I have been an energy consultant with MRW since 1989. During that time, I have assisted independent power producers, energy consumers, financial institutions, and regulatory agencies with issues related to power project development, project valuation, purchasing electricity, and regulatory matters. I have directed or worked on projects in a number of states and regions in the United States, including Arizona, Colorado, California, Nevada, New England, and Wisconsin. Prior to joining MRW, I worked at Pacific Gas and Electric Company ("PG&E"). At PG&E, I held a number of positions related to energy conservation, forecasting, electric resource planning, and corporate planning. I hold a Bachelor of Science degree in engineering physics from the University of California at Berkeley, and a Master of Science degree in mechanical engineering from the University of Wisconsin-Madison.

Q. Have you previously testified as an expert witness?

A. Yes. I have previously testified before the California Public Utilities Commission (Commission) on behalf of TURN, the California Farm Bureau Federation, the City of San Diego, the City of Long Beach, Bear Mountain, Snow Summit, the Independent Energy Producers Association, the California Cogeneration Council, Duke Energy North America, the Alliance for Retail Energy Markets, the Center for Energy Efficiency and Renewable Technologies, the Local Governmental Commission Coalition, Clearwater Port, Commercial Energy, and The Vote Solar Initiative. I have also submitted testimony in proceedings before the Federal Energy Regulatory Commission as well as state utility commissions in Arizona, Colorado, Massachusetts, Oregon, and Nevada. I have also submitted expert reports in arbitration and court proceedings. Additional information about my qualifications is provided in Appendix 1.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony reviews the forecasted costs of continued operation of the Diablo Canyon Power Plant (DCPP) based on information provided by Pacific Gas & Electric (PG&E) in Rulemaking (R.) 23-01-007 and other recent proceedings.[1]

Q. How is your testimony organized?

A. My testimony consists of four sections and is organized as follows:

- Section I: Introduction and Summary of Findings and Recommendations.
- Section II: PG&E's Proposed Costs for DCPP
- Section III: PG&E's significant understatement of costs associated with continued operation of DCPP.
- Section IV: Brief conclusion to the testimony.

A. Summary of Findings and Recommendations

Q. Please summarize your findings and recommendations.

A. In this testimony, I make the following findings and recommendations on behalf of TURN:

1. PG&E's Failure to Link Historic and Forecast Costs to Major Work Categories

Concern: PG&E provided both historic and forecast costs related to DCPP using categories adopted by the Electric Utility Cost Group (EUCG). In PG&E's General Rate

[1] "Pacific Gas and Electric Company: Rulemaking to Implement Senate Bill 846 Concerning Potential Extension of Diablo Canyon Power Plant Operations – Prepared Testimony," Rulemaking (R.) 23-01-007," May 19, 2023 (PG&E May 19th Testimony).

Cases (GRCs), PG&E presents cost data using Major Work Categories (MWCs). Despite requests from TURN, PG&E refused to provide a useful cross-walk between the EUCG categories and MWCs even though PG&E does not intend to present cost data using EUCG categories in the future. PG&E's refusal to provide transparent cost comparisons makes it very challenging to evaluate the reasonableness of their forecast.

Recommendation: The Commission should order PG&E to provide forecast data in this proceeding using the same MWCs that serve as the basis for reviews in both the General Rate Case and any future cost recovery proceeding. This approach would allow parties and the Commission to assess the reasonableness of PG&E's forecasted costs as well as to compare and contrast PG&E's forecasts across different proceedings.

2. PG&E Fails to Link Historic and Forecast Costs to DCPP Results of Operations

Concern: PG&E provided a very useful Results of Operation (RO) summary for DCPP in its most recent General Rate Case (GRC). This RO provides a clear, comprehensible summary of the costs and revenues related to DCPP under the current ratemaking paradigm. Parties generally have experience reviewing RO summaries. In its testimony in this proceeding, PG&E provided a completely different method of disaggregating costs that cannot easily be compared to historic or forecasted costs reviewed in any other Commission proceeding.

Recommendation: The Commission should order PG&E to provide a disaggregation of forecast costs that uses the same format as the RO summary in the GRC. This would provide the Commission and parties with a clear snapshot of the total forecasted costs and ratepayer obligations associated with the potentially new operating and ratemaking paradigm for DCPP during extended operations.

3. PG&E Fails to Include Numerous Costs of DCPP, Thereby Understating the Actual Costs of Extended Operation

Concern: PG&E ignores a number of costs that it will incur related to the continued operation of DCPP. PG&E acknowledged that a number of cost categories are excluded from its showing but refused to provide estimates for these line items. Because of PG&E's refusal to include those costs in its estimates of the all-in costs of DCPP, PG&E significantly understates the true costs of continued operation of DCPP.

The following table summarizes whether certain costs identified in the DCPP RO were included in the historic costs (i.e., Table 1) or forecast costs (i.e., Table 2) presented in PG&E's testimony:

Table 1: Categories of Costs in DCPP RO Excluded from PG&E May 19th Testimony

Category	Excluded from Table 1 (Historic)	Excluded from Table 2 (Forecast)	Notes
Transmission	Y	Y	
Uncollectibles	Y	Y	
Administrative and General	Y/N	Y/N	Portion is in Capital line as capitalized A&G. Contract A&G is excluded
Franchise & SFGR Tax Requirement	Y	Y	
Superfund Taxes			
Property Taxes	Y	Y	
Payroll Taxes	Y/N	Y/N	Payroll Taxes included in Support Services line; all other taxes excluded
Business Taxes	Y	Y	
Other Taxes	Y	Y	
State Corporation Franchise Taxes	Y	Y	
Federal Income Taxes	Y	Y	
Depreciation	Y	Y	During extended operations, PG&E expects to expense all costs in the year they are incurred
Net for Return	Y	Y	PG&E has not yet proposed to earn any return on capital or nuclear fuel during extended operations

Note that in the above table, a category that is denoted with a "Y" means that it was <u>excluded</u> from PG&E's cost tables in this proceeding. As can be seen from the above table, there are a large number of line items from the DCPP RO that are not accounted for in the historic or forecast costs presented by PG&E in this proceeding. TURN conservatively estimates that the total of these excluded costs is approximately $3.79

billion from 2023-2030 (which would be incremental to PG&E's estimate of $5.86 billion in costs over the same period).

In addition to the costs that have been identified in the DCPP RO that PG&E excluded from its cost estimates, it was unclear if PG&E also excluded certain other cost categories not specifically identified in the DCPP RO from the historic and forecast costs presented in its testimony. The following table summarizes those categories of costs:

Table 2: Categories of Other Costs Excluded from PG&E May 19th Testimony

Category	Excluded from Table 1	Excluded from Table 2	Notes
Pensions and benefits	N	N	
Nuclear Property Insurance	Y	Y	
Nuclear Liability Insurance	N	N	Included in Support Services
Materials and Supplies Inventory	Y	Y	
Mitigation Fees for SWCB to address entrainment	N	N	Included in Operations line
Refueling Outage Costs	N	N	Included In Outages
Employee Retention and Severance Payments	Y	Y	Will update in new application
Return, financing or carrying costs on nuclear fuel inventory		??	PG&E is not proposing cost recovery to include return, financing or carrying costs on fuel inventory "in this proceeding" but leaves open the possibility that such items could be requested in a future cost recovery application
Return, carrying or financing costs on capex or capital adds?		??	PG&E claims that it is not proposing any return, carrying or financing costs relating to capital additions "in this proceeding" but leaves open the possibility that such costs could be requested in a future cost recovery application.

As can be seen from the above table, there are several items that are not accounted for in the historic or forecast costs presented by PG&E in this proceeding. TURN estimates that the costs associated with this set of excluded costs is approximately $329.8 million from 2023-2030. In some instances (i.e., return or carrying costs on nuclear fuel and capital), PG&E excluded items from its current forecasts but expressly held open the possibility that it could request additional ratepayer funds for these purposes in a future proceeding. TURN's analysis does not attempt to estimate additional costs attributable to the carrying costs or return on nuclear fuel or capital additions.

Finally, PG&E has failed to include the various incentive payments that PG&E expects to receive associated with the extended operation of DCPP. These include both fixed payments, volumetric payments, employee retention costs, and the funding of a Liquidated Damages account. These payments are expected to amount to $2.72 billion from 2023-2030.

After including all costs that PG&E would likely incur to extend operations of DCPP as well as incentive payments made to PG&E from outside funding sources, TURN estimates that PG&E has understated the costs of DCPP for the period from 2023-2030 by over $6.84 billion. The following table presents the details of this estimate:

Table 3: Comparison of PG&E and TURN Cost Estimates for DCPP from 2023-2030 (nominal k$)

	Total PG&E Costs	Costs Excluded from DCPP RO Model	Other Excluded DCPP Costs	Additional Incentive Payments to PG&E	Total TURN Costs	Difference (PG&E - TURN)
2023	735,836	659,493	50,300	-	1,445,629	(709,793)
2024	744,446	691,414	50,300	148,864	1,635,024	(890,578)
2025	893,139	715,945	70,687	470,679	2,150,450	(1,257,311)
2026	765,143	304,419	71,095	477,739	1,618,396	(853,253)
2027	751,995	348,335	21,211	447,530	1,569,071	(817,076)
2028	885,818	363,211	21,635	432,556	1,703,220	(817,402)
2029	773,477	402,036	22,068	470,010	1,667,591	(894,114)
2030	312,811	301,108	22,509	274,091	910,519	(597,708)
Total	5,862,665	3,785,961	329,805	2,721,469	12,699,899	(6,837,234)

Table 3 presents the "gross" costs of continuing to operate DCPP. Based on these costs, the levelized "gross" cost of power for DCPP is almost $98/MWh (2024 $).

PG&E expects to receive funding from DWR and DOE to offset some of the costs of extended operation of DCPP. Even if PG&E were to receive 100% of the funding from DWR and DOE, the levelized "net" costs of power for DCPP from 2023-2030 are still over $88/MWh.

<u>Recommendation</u>: The Commission should order PG&E to demonstrate that it has included all anticipated costs for DCPP that it intends to collect from either ratepayers or other sources (e.g., the federal/state governments) through 2030 in its presentation so that the total anticipated costs to ratepayerscan be evaluated prior to issuing any authorization to proceed with extended operations.

II. PG&E's Proposed Costs for DCPP

Q. What is the purpose of this section of your testimony?

A. This section summarizes PG&E's presentation of historic and forecast costs associated with DCPP.

Q. What information does PG&E provide in its testimony related to the historic and forecast costs to operate DCPP?

A. PG&E presents two tables in its testimony that PG&E contends present (1) the historic costs of operation of DCPP (Table 1)[2] and (2) the forecasted costs of operation of DCPP (Table 2)[3]. The costs in the PG&E tables are presented in nominal dollars. The following table combines PG&E's tables and presents these costs for both the historic and forecast periods.

[2] PG&E May 19th Testimony, p. 7.
[3] PG&E May 19th Testimony, p. 9.

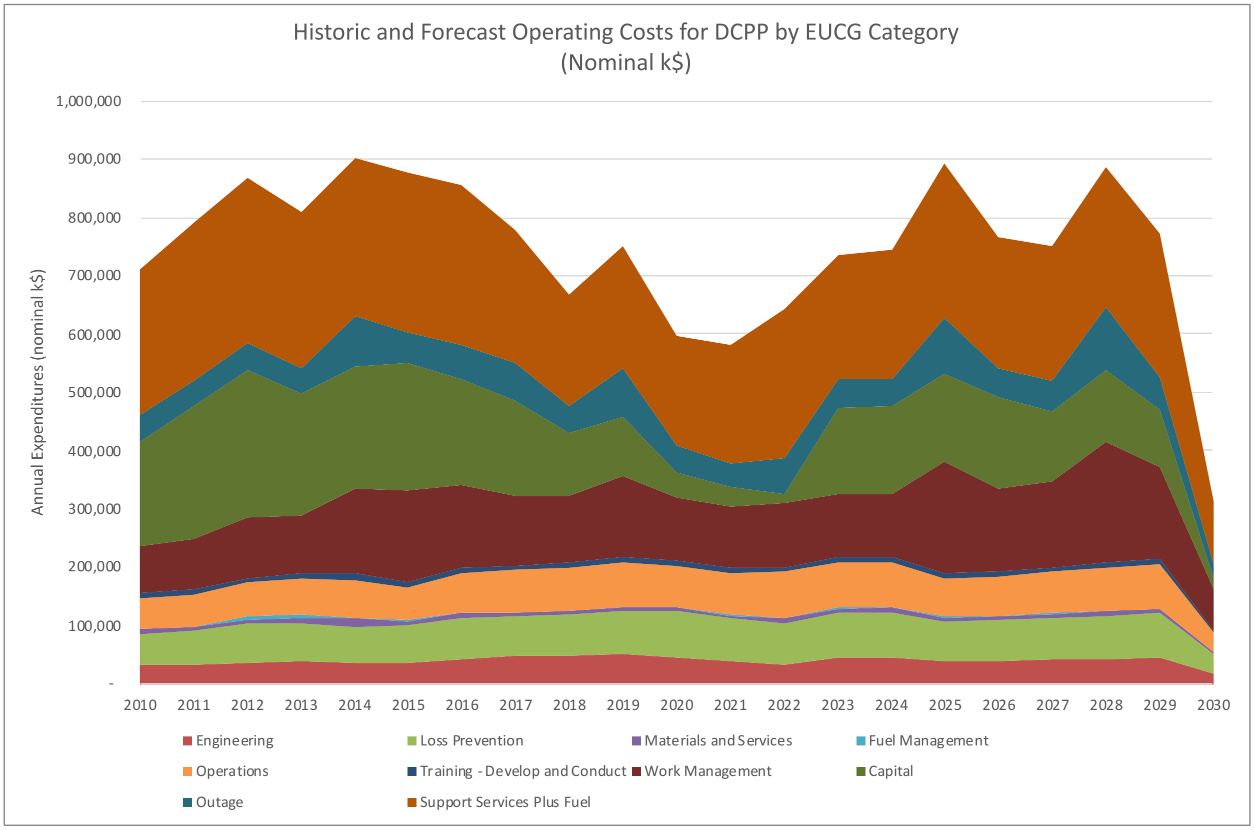
Table 4: Historic and Forecast Costs for DCPP as Presented by PG&E (nominal k$) [[CONFIDENTIAL]]

Year	Engineering	Loss Prevention	Materials and Services	Fuel Management	Operations	Support Services	Training - Develop and Conduct	Work Management	Total Nuclear Operating Costs	Capital	Outage	Fuel	Total
2010	32,406	53,424	9,015	-	52,941	146,653	8,911	80,692	384,042	178,313	44,663	105,278	712,296
2011	32,765	58,989	6,016	-	55,982	143,618	7,772	86,295	391,436	229,839	43,019	127,942	792,236
2012	34,619	70,277	5,721	4,430	58,665	157,288	7,843	105,202	444,044	251,090	45,587	128,631	869,352
2013	38,509	64,850	8,917	5,987	61,427	134,566	10,987	96,973	422,216	209,296	45,289	133,152	809,953
2014	36,865	62,261	12,980	844	65,186	155,377	11,222	144,842	489,577	209,934	87,156	113,921	900,588
2015	36,783	63,045	8,499	1,053	55,839	151,291	9,335	157,413	483,257	217,443	52,333	125,134	878,167
2016	41,005	72,811	8,648	648	67,903	147,888	7,318	141,805	488,026	183,121	58,860	126,909	856,916
2017	48,129	69,343	3,811	300	73,457	104,299	7,700	120,992	428,031	161,871	64,584	124,061	778,547
2018	49,749	70,840	3,920	-	75,766	61,617	7,996	114,824	384,712	106,210	48,086	128,286	667,294
2019	50,033	74,045	6,000	554	77,567	98,313	10,343	137,884	454,739	102,476	81,928	112,605	751,748
2020	46,723	78,778	4,600	501	70,895	[redacted]	11,472	106,288	[redacted]	43,327	44,982	[redacted]	596,818
2021	39,542	72,659	4,976	832	71,340	[redacted]	9,072	104,519	[redacted]	34,360	41,466	[redacted]	581,344
2022	31,990	72,755	8,468	808	77,593	[redacted]	7,551	112,109	[redacted]	12,995	63,274	[redacted]	644,111
2023	44,444	77,614	7,887	833	76,292	[redacted]	9,352	108,140	[redacted]	150,180	46,841	[redacted]	735,836
2024	44,767	78,178	7,944	839	76,847	[redacted]	9,420	108,926	[redacted]	150,052	46,841	[redacted]	744,446
2025	39,047	68,189	6,929	732	67,028	[redacted]	8,216	191,968	[redacted]	150,094	96,961	[redacted]	893,139
2026	39,786	69,479	7,060	746	68,296	[redacted]	8,371	142,588	[redacted]	154,312	50,177	[redacted]	765,144
2027	41,178	71,911	7,308	772	70,687	[redacted]	8,664	147,579	[redacted]	119,785	51,933	[redacted]	751,996
2028	42,619	74,427	7,563	799	73,161	[redacted]	8,968	206,495	[redacted]	123,977	107,502	[redacted]	885,818
2029	44,111	77,032	7,828	827	75,721	[redacted]	9,282	158,091	[redacted]	96,237	55,632	[redacted]	773,478
2030	19,023	33,220	3,376	357	32,655	[redacted]	4,003	68,177	[redacted]	20,751	23,991	[redacted]	422,644

Source: PG&E May 19th Testimony, Tables 1 and 2. Note that PG&E's value in Table 1 for Capital in 2021 is "34,36." TURN assumes that this value is $34,360.

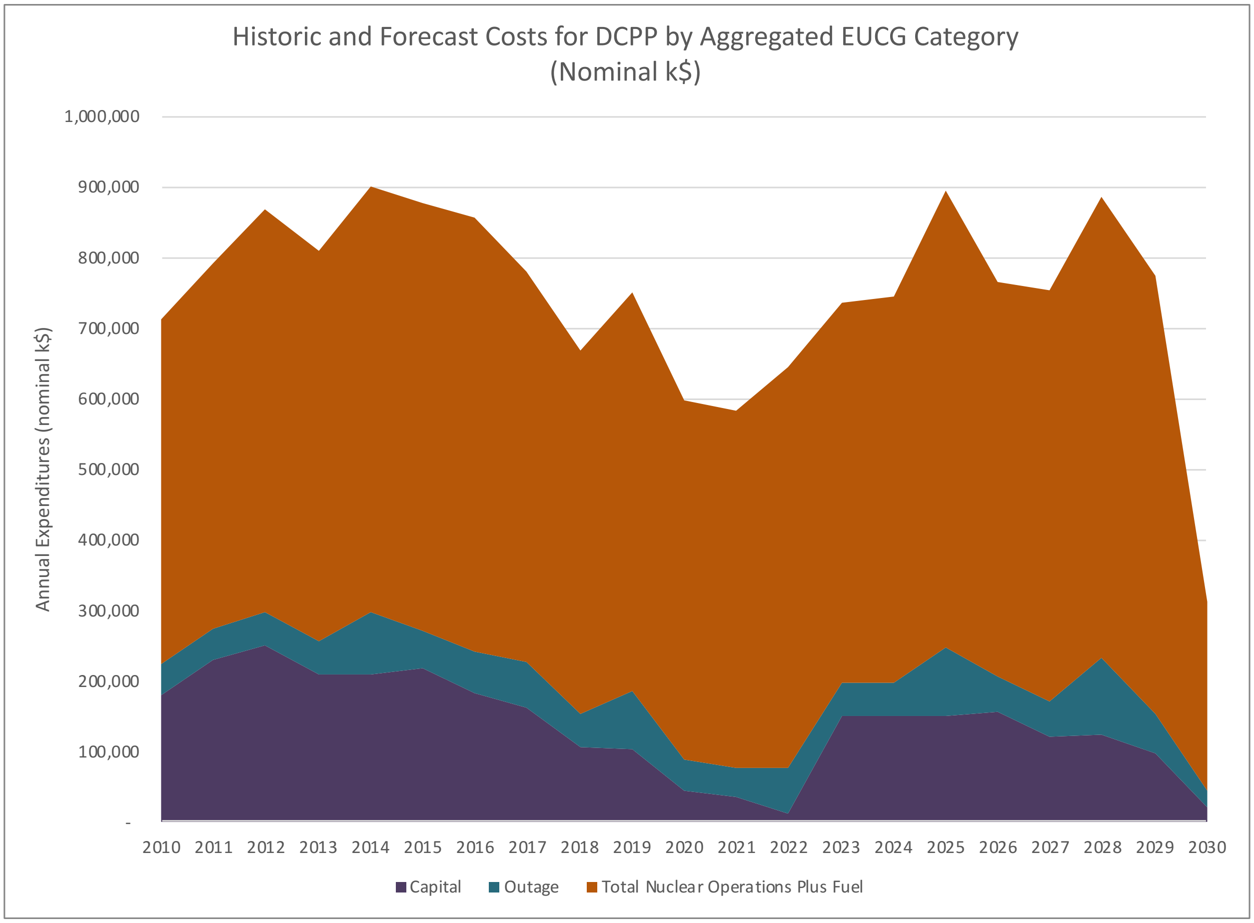
The following figures present the data from Table 4 graphically:

Figure 1: Historic and Forecast Costs for DCPP by Disaggregated EUCG Category



Note: Data in figure are not confidential since one category aggregates two confidential categories: Support Services and Fuel.

Figure 2: Historic and Forecast Costs for DCPP by Aggregated EUCG Category



Note: Data in figure are not confidential since one category aggregates two confidential categories: Total Nuclear Operating Costs and Fuel

Q. Do you have any comments about the data presented by PG&E?

A. Yes. Based on the data provided by PG&E, annual total costs for DCPP declined from a high in 2014 of about $900 million to a low of $581 million in 2021 and are projected to jump to nearly nearly $900 million in 2025. The variation in total costs seen in the above figures is driven primarily by changes in historic and forecast capital spending. Less obvious but still important is to note the manner in which PG&E has chosen to aggregate the various costs in its testimony in this proceeding. PG&E uses categories defined by the Electric Utility Cost Group (EUCG)[4] to present its historic and forecast data in this proceeding.

[4] To simplify the discussion, TURN's testimony refers to the cost categories defined by EUCG as "EUCGs."

Q. Is this the aggregation that PG&E typically uses to present its O&M and capital costs in other proceedings?

A. No. PG&E acknowledges that it typically presents its costs aggregated into Major Work Categories (MWCs).[5] It also acknowledges that most intervenors are familiar with costs categorized by MWCs and not EUCGs.[6] In response to a TURN data request, PG&E refused to map any of the presented costs to MWCs.[7]

Q. Why did PG&E use this alternative presentation in this proceeding?

A. According to PG&E, it presented estimated future costs "…in the EUCG industry accounting format because the DOE required that CNC applications be submitted using that methodology."[8] This rationale is not persuasive since PG&E has longstanding experience presenting DCPP cost data using the traditional MWCs. PG&E should have a readily-available "crosswalk" between costs categorized using EUCGs and MWCs.

Q. Does PG&E plan to present DCPP costs using the EUCG breakdown in future Commission proceedings?

A. No. PG&E states that it "does not plan to use the EUCG accounting format for its future cost recovery application with the CPUC."[9] Instead, PG&E intends to use a completely different method of cost categorization for purpose of future cost recovery proceedings. This method, described at a high level in its June 9, 2023 testimony, would present O&M costs using the same MWCs that have been presented in GRCs.[10] This fact demonstrates the absurdity of PG&E's decision to use the EUCG accounting format for presenting forecasted costs in this proceeding. PG&E's decision to use an atypical method of cost presentation in this proceeding (and, it should be noted, that will never be repeated in a future case) appears designed to frustrate any meaningful review of the forecast.

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[5] PG&E May 19th Testimony, p. 3.
[6] PG&E May 19th Testimony, p. 3.
[7] PG&E response to TURN Data Request #4, Questions 1 and 2.
[8] PG&E response to TURN Data Request #4, Question 2.
[9] PG&E response to TURN Data Request #4, Question 2.
[10] PG&E response to TURN Data Request #4, Question 2. See also PG&E June 9, 2023 Testimony, pages 3-3 through 3-4.

Q. How do PG&E's estimate of Total Nuclear Operating Costs change relative to Capital, Outage, and Fuel over time?

A. The following table presents that comparison:

Table 5: Comparison of Operating Costs, Capital, Outage, and Fuel Costs

Year	Total Nuclear Operating Costs	Capital	Outage	Fuel	Total
2010	53.9%	25.0%	6.3%	14.8%	100.0%
2011	49.4%	29.0%	5.4%	16.1%	100.0%
2012	51.1%	28.9%	5.2%	14.8%	100.0%
2013	52.1%	25.8%	5.6%	16.4%	100.0%
2014	54.4%	23.3%	9.7%	12.6%	100.0%
2015	55.0%	24.8%	6.0%	14.2%	100.0%
2016	57.0%	21.4%	6.9%	14.8%	100.0%
2017	55.0%	20.8%	8.3%	15.9%	100.0%
2018	57.7%	15.9%	7.2%	19.2%	100.0%
2019	60.5%	13.6%	10.9%	15.0%	100.0%
2020	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2021	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2022	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2023	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2024	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2025	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2026	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2027	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2028	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2029	[redacted]	[redacted]	[redacted]	[redacted]	100.0%
2030	[redacted]	[redacted]	[redacted]	[redacted]	100.0%

Source: Derived from PG&E May 19th Testimony, Tables 1 and 2

As seen in Table 5 above, Capital is a very small fraction of total costs in 2020-2022. This is not surprising since PG&E was expecting to shut down DCPP and had reduced capital expenditures under that assumption. However, Capital becomes a much larger fraction of PG&E's estimate of DCPP costs starting in 2023.

Regarding longer-term trends, Fuel and Outage Costs have increased since 2010 at higher CAGRs ([redacted] and [redacted], respectively) than have Total Nuclear Operating Costs and Capital Costs ([redacted] and [redacted], respectively). In addition, the trends from 2020-2029 show Capital Costs growing at a very high CAGR of 9.3%, Fuel Costs growing a bit slower at [redacted], Outage Costs growing at 2.4%, and Total Nuclear Operating Costs growing at [redacted].

Q. How do PG&E's cost estimates presented in its testimony compare to those PG&E presented for 2020-2023 in its last GRC?

A. They do not compare well. Section III highlights the wide disparities between the cost estimates presented in the testimony in this proceeding and what PG&E presented in its 2023 GRC.

III. PG&E Significantly Understates Total Costs for DCPP

Q. What is the purpose of this section of your testimony?

A. This section compares the costs that PG&E presented in this proceeding against TURN's more complete forecast of the costs for extended DCPP operations. Based on TURN's review of PG&E's testimony in this proceeding, PG&E's responses to TURN data requests, and PG&E's prior showings regarding the costs for DCPP, TURN concludes that PG&E has signifcantly understated the costs of DCPP should it continue to operate past its currently projected closure dates.

Q. What information has PG&E presented to help gauge its prior estimates of the costs of owning and operating DCPP?

A. In PG&E's last GRC, it presented a Results of Operation (RO) exhibit for the DCPP.[11] This RO summary presents all of the costs and revenues for DCPP. The following presents this RO summary from the workpapers from the GRC:

[11] Workpapers to Exhibit PG&E-10 in A.21-06-021, pp. WP 17-94 to WP 17-98.

Figure 3: RO Results from PG&E's 2023 Test Year GRC

							(PG&E-10)
BA2Page1							
Pacific Gas and Electric Company							
2023 CPUC General Rate Case (Application - February 28, 2022 Update)							
Results of Operations at Proposed Rates							
Electric Generation - Diablo Canyon Power Plant							
(Thousands of Dollars)							
		Recorded	Adj Recorded	Estimated	Estimated	Test	
Line		Year	Year	Year	Year	Year	Line
No.	Description	2020	2020	2021	2022	2023	No.
		(A)	(B)	(C)	(D)	(E)	
	REVENUE:						
1	Revenue Collected in Rates		1,243,711	1,204,920	1,316,478	1,246,344	1
2	Plus Other Operating Revenue		941	941	941	4,684	2
3	Total Operating Revenue		1,244,652	1,205,861	1,317,419	1,251,027	3
	OPERATING EXPENSES:						
4	Energy Costs		0	0	0	0	4
5	Production		361,726	335,552	326,362	315,173	5
6	Storage		0	0	0	0	6
7	Transmission		3,147	4,496	4,193	4,283	7
8	Distribution		0	0	0	0	8
9	Customer Accounts		0	0	0	0	9
10	Uncollectibles		4,060	3,617	3,952	3,753	10
11	Customer Services		0	0	0	0	11
12	Administrative and General		188,426	210,910	223,373	237,622	12
13	Franchise & SFGR Tax Requirement		9,319	9,168	10,035	9,547	13
14	Amortization		23,407	23,407	23,407	31,327	14
15	Wage Change Impacts		0	0	0	0	15
16	Other Price Change Impacts		0	0	0	0	16
17	Other Adjustments		-1,673	-1,723	-1,774	-1,828	17
18	Subtotal Expenses:		588,412	585,427	589,546	599,877	18
	TAXES:						
19	Superfund		0	0	0	0	19
20	Property		22,681	22,453	22,083	19,359	20
21	Payroll		18,860	18,602	20,291	18,855	21
22	Business		166	179	258	264	22
23	Other		3,987	5,080	4,950	4,964	23
24	State Corporation Franchise		24,979	24,955	36,309	30,659	24
25	Federal Income		-15,623	-6,784	29,662	22,859	25
26	Total Taxes		55,049	64,485	113,552	96,959	26
27	Depreciation		391,281	401,019	412,324	409,319	27
28	Decommissioning		0	0	0	0	28
29	Nuclear Decommissioning		0	0	0	0	29
30	Total Operating Expenses		1,034,742	1,050,931	1,115,423	1,106,155	30
31	Net for Return		209,910	154,930	201,996	144,872	31
32	Rate Base		2,241,226	2,145,974	2,025,365	1,973,735	32
	RATE OF RETURN:						
33	On Rate Base		**9.37%**	**7.22%**	**9.97%**	**7.34%**	33
34	On Equity		**13.68%**	**10.02%**	**15.31%**	**10.25%**	34
35	Proposed Return on Rate Base		7.58%	7.34%	7.34%	7.34%	35
36	Net-To-Gross Multiplier		1.440801	1.440587	1.440608	1.440629	36
37	Additional Revenue Requirements		-57,668	3,723	-76,834	0	37
38	Total Revenue Requirements		1,186,984	1,209,584	1,240,585	1,251,027	38
39	Increase Uncollectible Expense		-188	11	-230	0	39
40	Increase Franchise & SFGR Tax Expense		-432	28	-585	0	40
41	Increase Superfund Tax		0	0	0	0	41
42	Increase Current CCFT		-5,043	326	-6,720	0	42
43	Increase Current Federal Income Taxes		-11,980	774	-15,964	0	43
44	Revenue Requirements Tax Effect of MTD		0	0	0	0	44

Source: Workpapers for Exhibit PG&E-10 from PG&E GRC, Chapter 17.

Q. How do the values presented in PG&E's DCPP RO model compare to the information that PG&E presented in its testimony in this proceeding?

A. While the "Production" line item is similar to the Total Nuclear Operating Costs line from PG&E's testimony in this proceeding, there are numerous line items in the DCPP RO model that do not appear in PG&E's testimony.

Q. Does that mean that PG&E excluded certain costs from its cost estimate in this proceeding that were included in the DCPP RO model?

A. Yes. TURN submitted data requests to PG&E to determine the extent to which some of the line items in the DCPP RO model were included in line items presented in PG&E's testimony in this proceeding. In most cases, PG&E indicated that those costs from the DCPP RO model were not included in the costs in this proceeding.[12] The following table summarizes PG&E's responses to TURN data requests about whether PG&E included certain costs in its cost estimates for this proceeding:

Table 6: DCPP Costs from DCPP RO Model Possibly Excluded in PG&E May 19th Testimony

Category	Excluded from Table 1	Source	Excluded from Table 2	Source	Notes
Transmission	Y	TURN-2, Q2	Y	TURN-2, Q3	
Uncollectibles	Y	TURN-2, Q2	Y	TURN-2, Q3	
Administrative and General	Y/N	TURN-2, Q2	Y/N	TURN-2, Q3	Portion is in Capital line as capitalized A&G. Contract A&G is excluded
Franchise & SFGR Tax Requirement	Y	TURN-2, Q2	Y	TURN-2, Q3	
Superfund Taxes	Y	TURN-2, Q2	Y	TURN-2, Q3	
Property Taxes	Y	TURN-2, Q2	Y	TURN-2, Q3	
Payroll Taxes	Y/N	TURN-2, Q2	Y/N	TURN-2, Q3	Payroll Taxes included in Support Services line; all other taxes excluded
Business Taxes	Y	TURN-2, Q2	Y	TURN-2, Q3	
Other Taxes	Y	TURN-2, Q2	Y	TURN-2, Q3	
State Corporation Franchise Taxes	Y	TURN-2, Q2	Y	TURN-2, Q3	
Federal Income Taxes	Y	TURN-2, Q2	Y	TURN-2, Q3	
Depreciation	Y	TURN-2, Q2	Y	TURN-2, Q3	During extended operations, PG&E expects to expense all costs in the year they are incurred
Net for Return	Y	TURN-2, Q2	Y	TURN-2, Q3	PG&E has not yet proposed to earn any return on capital or nuclear fuel during extended operations but may do so in a future application.

In the above table, the first column presents line items from the DCPP RO model, the second column indicates whether PG&E excluded those categories from its historic data

[12] PG&E Response to TURN Data Request 2, Questions 2 and 3.

in this proceeding (i.e., Table 1), the third column indicates the source for this information (i.e., PG&E's response to the TURN data request), the fourth column indicates whether the line item is excluded from PG&E's forecast data in this proceeding (i.e., Table 2), the fifth column indicates the source for this information, and the sixth column provides explanatory notes.

Q. What do you conclude from this table?

A. PG&E has excluded costs for at least 13 categories specifically called out in DCPP RO model from the costs that it presented in this proceeding. Adding these excluded costs causes the total cost of both historic and extended operation of DCPP to be much greater than presented by PG&E in its testimony.

Q. Has TURN attempted to "fill in the blanks" in PG&E's cost estimates from this proceeding?

A. Yes. The following table presents TURN's estimates for Total Operating Expenses for 2020-2030 in the same format as the DCPP RO summary:

Table 7: TURN Estimate of Total DCPP Operating Expenses (nominal k$)

		Adj Recorded	Estimated	Estimated	Test								
		Year	Year	Year	Year	TRENDED OR FORECAST							
Line No.	Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Excluded from Tables 1 and 2
	OPERATING EXPENSES:												
1	Nuclear Fuel	[redacted]											
2	Outage	44,982	41,466	63,274	46,841	46,841	96,961	50,177	51,933	107,502	55,632	23,991	
3	Capital	43,327	34,360	12,995	150,180	150,052	150,094	154,312	119,785	123,977	96,237	20,751	
4	Production	[redacted]											
5	Storage	0	0	0	0								
6	Transmission	3,147	4,496	4,193	4,283	4,806	5,117	5,427	5,738	6,048	6,359	6,669	1
7	Distribution	0	0	0	0								
8	Customer Accounts	0	0	0	0								
9	Uncollectibles	4,060	3,617	3,952	3,753	3,699	3,640	3,582	3,523	3,465	3,406	3,347	1
10	Customer Services	0	0	0	0								
11	Administrative and General	155,931	185,140	213,627	124,987	142,557	158,530	171,372	213,272	226,133	262,943	160,000	1
12	Franchise & SFGR Tax Requirement	9,319	9,168	10,035	9,547	9,905	10,060	10,215	10,370	10,525	10,681	10,836	1
13	Amortization	23,407	23,407	23,407	31,327	31,327	33,703	36,079	38,455	40,831	43,207	45,583	??
14	Wage Change Impacts	0	0	0	0								
15	Other Price Change Impacts	0	0	0	0								
16	Other Adjustments	-1,673	-1,723	-1,774	-1,828	(1,879)	(1,930)	(1,982)	(2,033)	(2,085)	(2,137)	(2,188)	??
17	Subtotal Expenses:	791,009	805,447	897,551	907,905	934,861	1,102,259	989,836	1,021,320	1,170,735	1,097,936	537,058	
	TAXES:												
18	Superfund	0	0	0	0								1
19	Property	22,681	22,453	22,083	19,359	19,060	18,026	16,993	15,959	14,926	13,892	12,858	1
20	Payroll												
21	Business	166	179	258	264	310	347	385	422	459	497	534	1
22	Other	3,987	5,080	4,950	4,964	5,446	5,726	6,006	6,286	6,566	6,846	7,126	1
23	State Corporation Franchise	24,979	24,955	36,309	30,659	33,484	33,484	33,484	33,484	33,484	33,484	33,484	1
24	Federal Income	-15,623	-6,784	29,662	22,859	22,859	22,859	22,859	22,859	22,859	22,859	22,859	1
25	Total Taxes	36,190	45,883	93,262	78,105	81,159	80,442	79,726	79,010	78,294	77,578	76,861	
26	Depreciation	391,281	401,019	412,324	409,319	419,841	426,382						1
27	Decommissioning	0	0	0	0								
28	Nuclear Decommissioning	0	0	0	0								
29	Total Operating Expenses	1,218,480	1,252,349	1,403,137	1,395,329	1,435,860	1,609,084	1,069,562	1,100,330	1,249,029	1,175,513	613,919	

Q. Please explain what is being presented in Table 7 above.

A. Table 7 presents PG&E's estimated costs for Nuclear Fuel, Outage, Capital, and Total Nuclear Operating Costs in lines 1-4. These values were taken directly from Tables 1 and 2 of PG&E's testimony. The other lines in the table present TURN's estimates for costs that PG&E failed to include in its historic or forecast costs.[13]

Q. How did you develop the above estimates for costs that PG&E did not provide to TURN?

A. It was necessary to develop forecasts for 2024-2030 for the line items in the DCPP RO model that PG&E did not provide forecasted values,. To do that, I used trends of costs based on the values from 2020 (Adjusted) through 2023 from PG&E's DCPP RO model from its GRC.[14] For items that are partially included in PG&E's forecasts (i.e., A&G), I developed conservative allocations.[15] I excluded line items in Table 7 above that PG&E indicated were included in the four major categories in Tables 1 and 2 (e.g., Payroll Taxes).

Q. Please comment on the A&G line item in Table 7.

A. Total A&G for DCPP is about 18% of PG&E's Total Operating Expenses as seen in PG&E's DCPP RO from its GRC (see Figure 3 above). This fraction increases to about 22% by 2023. Other than Production and Depreciation, A&G is the single largest line item in the DCPP RO Model from the GRC.

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[13] Note that TURN included estimated expenses for Depreciation in 2023-2025 in Table 7. This is because the depreciation expenses for 2023-2025 will be paid by ratepayers regardless of whether DCPP continues to operate after the end of its current operating licenses or not. TURN also included forecasted costs for "Amortization" and "Other Adjustments." It is unclear how PG&E derived these values for 2020-2023. For that reason, TURN included them in its forecast.

[14] For income taxes, I assumed that taxes would be equal to the average of taxes for 2022 and 2023 from PG&E's DCPP RO.

[15] PG&E states that a portion of DCPP's Capitalized A&G is included in Capital but fails to provide the exact amount. I conservatively estimate that the capitalized A&G is equal to 75% of PG&E's Capital value from Tables 1 and 2 and deduct that amount from the trend of PG&E's total DCPP-related A&G derived from the GRC.

Q. Isn't DCPP's A&G simply an allocation of PG&E's total A&G?

A. For the purposes of the DCPP RO, DCPP's A&G may be an allocation. However, TURN has previously demonstrated that if DCPP were to shut down, PG&E's overall A&G would be reduced.[16] PG&E has not provided sufficient detail to allow TURN to assess the amount of A&G costs identified in its current GRC that are included in (or excluded from) its extended operations cost forecast. Moreover, the lack of consistently-defined A&G costs (between the GRC and this proceeding) prevents an assessment of the company-wide amounts attributable to extended operations. Given the significance of these costs, the Commission should require PG&E to provide a comprehensive breakdown of all A&G allocated to DCPP in the GRC, identify which of these costs are included in (and excluded from) its extended operations forecast, and explain why specific A&G costs not included in the extended operations forecast were omitted.

Q. How do PG&E's estimates of Total Operating Expenses compare with TURN's more complete estimates?

A. PG&E's estimates are far less than TURN's. The following table provides a comparison:

Table 8: Comparison of PG&E and TURN Total Operating Expenses (nominal k$)

	Nuclear Fuel	Outage	Capital	Production	Total PG&E	TURN	Difference
2020	[redacted]	44,982	43,327	[redacted]	596,818	1,218,480	(621,662)
2021	[redacted]	41,466	34,360	[redacted]	581,342	1,252,349	(671,007)
2022	[redacted]	63,274	12,995	[redacted]	644,111	1,403,137	(759,026)
2023	[redacted]	46,841	150,180	[redacted]	735,836	1,395,329	(659,493)
2024	[redacted]	46,841	150,052	[redacted]	744,446	1,435,860	(691,414)
2025	[redacted]	96,961	150,094	[redacted]	893,139	1,609,084	(715,945)
2026	[redacted]	50,177	154,312	[redacted]	765,143	1,069,562	(304,419)
2027	[redacted]	51,933	119,785	[redacted]	751,995	1,100,330	(348,335)
2028	[redacted]	107,502	123,977	[redacted]	885,818	1,249,029	(363,211)
2029	[redacted]	55,632	96,237	[redacted]	773,477	1,175,513	(402,036)
2030	[redacted]	23,991	20,751	[redacted]	312,811	613,919	(301,108)

[16] See Exhibit TURN-2, A.16-08-006, page 8.

Q. How will PG&E recover these costs?

A. PG&E will file an application with the Commission for recovery of these operating costs through rates. It is not clear whether the costs PG&E seeks to recover in future applications will differ significantly from those presented in this proceeding.

Q. Are there other costs that PG&E excluded from the costs presented in Tables 1 and 2 in this proceeding?

A. Yes. In addition to the costs categories that TURN identified as being in the DCPP RO and that PG&E excluded from its cost estimates, it was unlear if PG&E also excluded certain other costs not specifically identified in the DCPP RO from the historic or forecast costs in its testimony. Because it was unclear if these other cost categories were included in PG&E's costs presented in its testimony, TURN submitted data requests to PG&E. The following table summarizes whether PG&E had included in its data those categories of costs not specifically called out in the DCPP RO:

Table 9: Categories of Other Costs Excluded from PG&E May 19th Testimony

Category	Excluded from Table 1	Basis	Excluded from Table 2	Basis	Notes
Pensions and benefits	N	TURN-2, Q2	N	TURN-2, Q3	
Nuclear Property Insurance	Y	TURN-2, Q2	Y	TURN-2, Q3	
Nuclear Liability Insurance	N	TURN-2, Q2	N	TURN-2, Q3	Included in Support Services
Materials and Supplies Inventory	Y	TURN-2, Q2		TURN-2, Q3	
Mitigation Fees for SWCB to address entrainment	N	TURN-2, Q2	N	TURN-2, Q3	Included in Operations line
Refueling Outage Costs	N	TURN-2, Q2	N	TURN-2, Q3	Included In Outages
Employee Retention and Severance Payments	Y	TURN-2, Q4	Y	TURN-2, Q3	Will update in new application
Return, financing or carrying costs on nuclear fuel inventory			??	TURN-2, Q-5	PG&E is not proposing cost recovery to include return, financing or carrying costs on fuel inventory "in this proceeding" but leaves open the possibility that such items could be requested in a future cost recovery application
Return, carrying or financing costs on capex or capital adds			??	TURN-2, Q-6	PG&E claims that it is not proposing any return, carrying or financing costs relating to capital additions "in this proceeding" but leaves open the possibility that such costs could be requested in a future cost recovery application.

As can be seen from the above table, PG&E excluded Nuclear Property Insurance, Materials and Supplies Inventory, and Employee Retention and Severance Payments from its estimated costs of DCPP. In addition, PG&E indicated that it was not proposing cost recovery in this proceeding for two other categories[17] but did not rule out left open the possibility that PG&E might request recovery of those costs in future cost recovery proceedings.

Q. What is the estimated magnitude of these excluded items?

A. The following table presents TURN's estimates of these costs[18]:

Table 10: TURN Estimate of Costs Not Included in DCPP RO (nominal k$)

	Nuclear Property Insurance	**Materials and Supplies Inventory**	**Employee Retention Program**	**Total Other Expenses Excluded**
2020	-	-	50,300	50,300
2021	-	-	50,300	50,300
2022	-	-	50,300	50,300
2023	-	-	50,300	50,300
2024	-	-	50,300	50,300
2025	6,122	14,265	50,300	70,687
2026	6,245	14,550	50,300	71,095
2027	6,370	14,841	-	21,211
2028	6,497	15,138	-	21,635
2029	6,627	15,441	-	22,068
2030	6,760	15,749	-	22,509

Source for Nuclear Property Insurance and Materials and Supplies Inventory is workpapers from Exhibit TURN-2 in A.16-08-006.

Q. How did you develop these estimates?

A. I relied on estimates that TURN had previously submitted in A.16-08-006 for Nuclear Property Insurance and Materials and Supplies Inventory.[19]

For Employee Retention costs, I relied on information from D.18-11-024, which

[17] The two categories are "Return, financing or carrying costs on nuclear fuel inventory" and "Return, carrying or financing costs on capex or capital adds." TURN did not include costs for these two items in its assessment of total costs for DCPP.

[18] This table does not include Employee Retention Costs. Those costs are addressed below.

[19] A.16-08-006, Workpapers for Exhibit TURN-2.

approved PG&E's proposed $352.1 million employee retention program (increasing employee retention from the $211.3 million approved in D.18-01-022, p. 29). D.18-11-024 approved retention payments for 7 years.[20]

Q. How will PG&E recover these costs?

A. To the degree that these are costs that PG&E believes should be recovered, PG&E will file a request with the Commission in future applications to recover these costs in rates.

Q. Aside from the cost categories identified above, are there other costs associated with the continued operation of DCPP?

A. Yes. There are five additional significant cost items authorized under SB 846 related to the continued operation of DCPP.[21] These should be considered additional incentive payments to keep DCPP online. The cost categories are:

- A volumetric performance-based payment of $7/MWh paid by the state general fund (via the Department of Water Resources) for all generation prior to the extension period (i.e., prior to the end of the current operating licenses for DCPP Units 1 and 2)[22];
- A volumetric performance-based payment of $6.50/MWh (2022$) for all generation during the extention period that is paid by customers of all Load Serving Entities (LSEs) and an additional $6.50/MWh (2022$) for all generation that is paid by PG&E customers[23];
- A fixed management fee of $50 million per year (2022$) per unit[24];
- The costs to fund a Liquidated Damages account, which equals $12.5 million per month per unit until the account has a balance of $300 million[25]; and

[20] D.18-11-006, p. 7.
[21] These costs are specified in SB 846.
[22] California Public Utilities Code §712.8(f), (g), (i).
[23] California Public Utilities Code Section §712.8(f)(5). These payments are in real 2022 dollars. Because PG&E is an LSE, its customers will pay $6.50 per MWh of generation from DCPP and an additional amount equal to PG&E's *pro rata* share of an additional $6.50 per MWh of generation. Thus, the overall cost of this volumetric payment is $13/MWh for all generation from DCPP.
[24] California Public Utilities Code §712.8(f)(6). This payment is in real 2022 dollars.
[25] California Public Utilities Code §712.8(g).

- Employee retention costs that will be sought for recovery by PG&E in a future application.[26]

Q. What is the total of these costs per year?

A. The following table presents TURN's estimate of these costs:

Table 11: TURN Estimate of Additional Incentive Payments to PG&E to Continue Operation of DCPP (nominal k$)

	Volumetric Perf-Based Pmt ($7/MWh)	Volumetric Perf-Based Pmt ($13/MWh)	Fixed Management Fee ($50MM/unit/yr)	Liquidated Damage Sub-Account	Employee Retention Program	Total Payments
2020	-	-	-	-	-	-
2021	-	-	-	-	-	-
2022	-	-	-	-	-	-
2023	-	-	-	-	-	-
2024	120,386	11,514	4,463	12,500	-	148,864
2025	34,312	162,453	73,915	200,000	-	470,679
2026	-	275,487	114,752	87,500	-	477,739
2027	-	278,462	118,769	-	50,300	447,530
2028	-	259,330	122,926	-	50,300	432,556
2029	-	292,482	127,228	-	50,300	470,010
2030	-	92,110	131,681	-	50,300	274,091
Total	154,698	1,371,838	693,733	300,000	201,200	2,721,469

Note: Table assumes 3.5% per year inflation for $13/MWh volumetric payment and $50MM/unit/yr Fixed management fee.

As can be seen from Table 11 above, these payments range from $148.9 million in 2024 to a high of $477.7 million in 2026. After 2026, these costs decline to about $274.1 million in 2030. Total additional incentive payments from 2020-2030 equal more than $2.72 billion.

Q. How did you estimate these costs?

A. PG&E refused to provide forecasts for these costs in response to TURN data requests.[27]

[26] SB 846 (adding Public Utilities Code Section 712.8.f.2)

[27] PG&E responses to TURN Data Request 2, Questions 4, 10, 11, 12, and 13.

Since PG&E would not provide any such forecast, TURN estimated these costs using relatively simple methods. First, the fixed payments were straightforward (assuming that per-unit and per-year fixed payments in 2024 and 2025 were *pro rata* with months of operation after the end of the original operating licenses). To develop forecasts of fees based on generation, it was necessary to develop a forecast of generation for 2023-2030 since PG&E also refused to provide a forecast of expected generation by DCPP from 2023-2030.[28] TURN developed an estimate of expected generation based on historic days of planned and unplanned outages for 2017-2021.[29] I adjusted the days of outages from 2017-2021 to remove unplanned outages that were longer than 10 days. For purposes of forecasting generation for 2023-2030, I assumed that 2022 "normal" days of outages would be the same as the number of "normal" days of outages in 2019. For years 2023-2030, I assumed that each year would have the same number of "normal" days of outage as the average of the number of "normal" outage days for years that were 3- and 6-years prior. For example, for 2024, I assumed that outage days would would be equal to the average of days of outages in 2021 and 2018.

For Employee Retention costs, I assumed that these payments would contine at the same level after the end of the original 7-year period authorized in D.18-11-024.

Q. How do these additional incentive payments compare to payments that PG&E projects to be recovered through the DWR Loan and the DOE CNC Program?

A. The total amount PG&E projects it will receive from these the DWR Loan and DOE CNC Program is $1.1 billion. The payments from these sources end in 2026.[30] Thus, the DWR Loan and DOE CNC Program will only cover about 40.4% of the costs for 2020-2030 from Table 11 above. More importantly, the DWR Loan and DOE CNC Program funds just barely cover the costs shown in Table 11 from 2020-2026 (i.e., customers will pay $3.2 million less than the total amount of the additional incentive payments of $1.097

[28] PG&E responses to TURN Data Request 2, Questions 7, 8, 9.
[29] CONFIDENTIAL Attachment to PG&E Response to TURN Data Request 3, Question 1, file "J9EKLNMZXFM6_Diablo Canyon Historic Annual Operating Conditions_Year.xlsx," tab "Historic Operating Loss."
[30] PG&E May 19 Testimony, p. 15.

billion). After 2026, customers will have to pay 100% of the additional incentive payments (i.e., $1.62 billion). This means that over the periond from 2020-2030 customers will be asked to pay an additional $1.62 billion out of the $2.72 billion of Additional Incentive Payments shown in Table 11. The following table presents the Additional Incentive Payments paid by customers and the potential payments from DWR and DOE that might offset some of those costs:

Table 12: Cash Flows to PG&E for Extending Life of DCPP vs. Possible Outside Funding (nominal k$)

	Starting Cumulative Balance Paid by Ratepayers for Incentive Payments [a] = [d] from prior year	**Additional Incentives Payments to PG&E [b]**	**Possible Payments from DWR/DOE Offsetting Ratepayer Costs [c]**	**Ending Cumulative Balance Paid by Ratepayers [d]=[a]+[b]+[c]**
2020	0	-	0	-
2021	-	-	0	-
2022	-	-	(42,072)	(42,072)
2023	(42,072)	-	(381,816)	(423,888)
2024	(423,888)	148,864	(408,321)	(683,345)
2025	(683,345)	470,679	(210,256)	(422,922)
2026	(422,922)	477,739	(58,056)	(3,239)
2027	(3,239)	447,530	-	444,291
2028	444,291	432,556	-	876,847
2029	876,847	470,010	-	1,346,857
2030	1,346,857	274,091	-	1,620,948
Total		2,721,469	(1,100,521)	

Source for Payments to PG&E: Table 11 above. Source for Possible Payments from DWR/DOE: PG&E May 19th Testimony, p. 15.

Q. What is Table 12 above showing about the timing and amount of the revenues PG&E will receive for the various incentive payments that PG&E failed to include in its testimony relative to any potential offsetting revenue that PG&E may receive from DWR and DOE.

A. Table 12 above presents a cumulative assessment of the difference between annual amounts of the incentive payments (including payment of employee retention costs) that PG&E will receive from ratepayers relative to possible payments that PG&E might receive from DWR and DOE to offset those incentive payments. The annual values in the third column of the table are taken from Table 11 above. The annual values in the fourth column are derived from PG&E's May 19th testimony at page 15.[31]

Starting in 2022, PG&E will not have any additional incentive payments (column b) but PG&E assumes that it will receive about $42.1 million from DWR and DOE (column c). Thus, PG&E would receive about $42.1 million more than its costs in 2022 (the sum of columns b and c). Since the "starting balance" is zero in 2022, then the ending balance in 2022 is -$42.7 million ($0 + $0 million - $42.7 million). The cumulative total at the end of 2022 becomes the starting balance in 2023. In 2024, PG&E assumes it would have recovered $423.9 million from DWR and DOE but would have had no additional incentive payments. However, in 2024, customer costs are 148.9 million and PG&E assumes that there is an offsetting $408.3 million in possible payments from DWR and/or DOE, meaning that PG&E would receive $259.5 million more from DWR and DOE than the incremental incentive payments, resulting PG&E having received $683.3 million more from DWR and DOE than the additional incentive payments made by customers. This trend reverses in 2025, when the cost of the additional incentive payments exceeds the assumed payments from DWR and DOE. By the end of 2026, the offsets from DWR and DOE are only $3.2 million more than the total additional incentive costs.

Q. What is the difference in total incentive payments received by PG&E and the total possible offsets received from DWR and DOE?

A. Incentive payments exceed possible offsets by $1.621 billion (i.e., the "Ending Balance" in 2030 in Table 12).

Q. By including all of the costs that PG&E failed to include in its testimony, what is TURN's estimate of the "gross"[32] cost of power from DCPP from 2020-2030?

A. The following table summarizes TURN's estimated costs for DCPP for 2024-2030:

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[31] Potential offsets from DWR and DOE are presented as negative values.

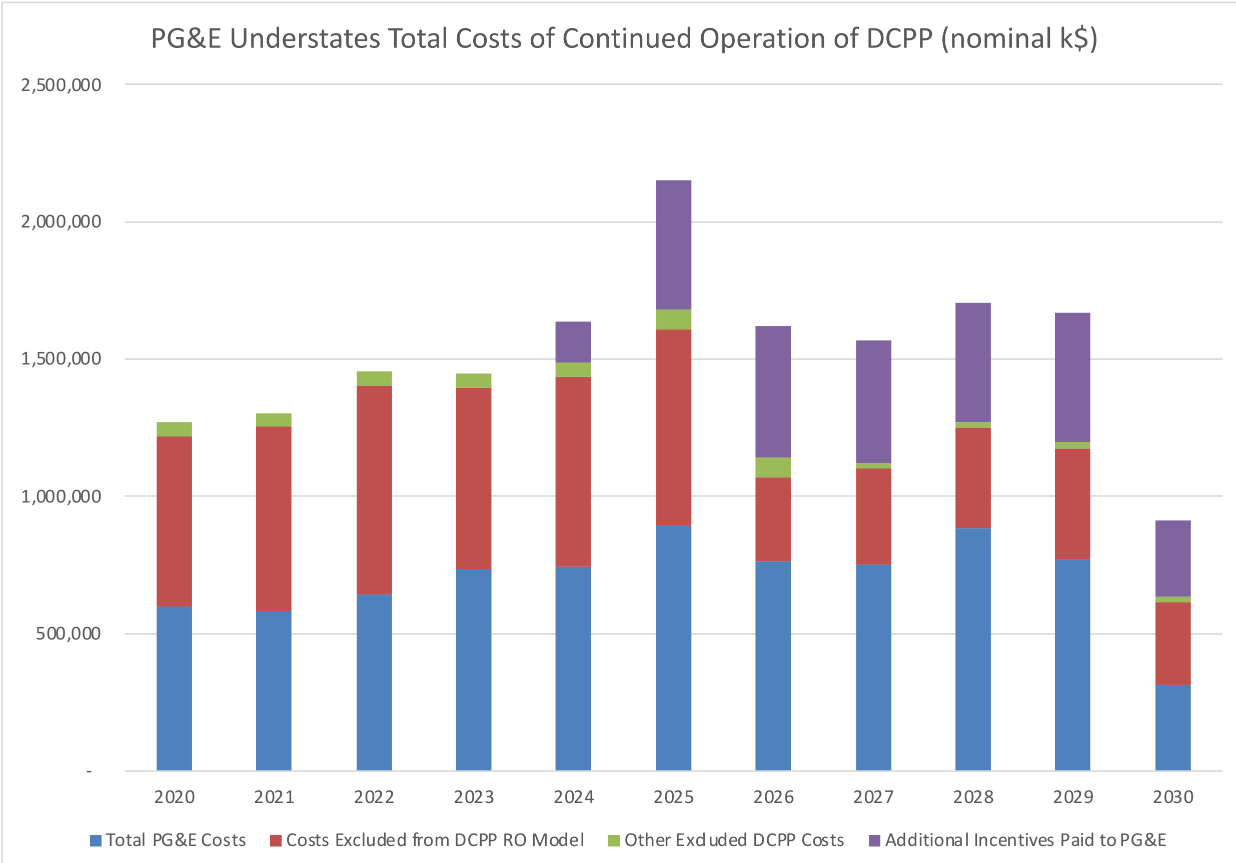
[32] In this testimony, "gross" costs are costs before possible funds provided by DWR or DOE. "Net" costs are "gross" costs less possible funds provided by DWR or DOE.

Table 13: Comparison of PG&E and TURN Estimates of Total Costs for DCPP (k$)

	Total PG&E Costs Estimate	Costs Excluded from DCPP RO Model	Other Excluded DCPP Costs	Additional Incentive Payments to PG&E	Total TURN Estimate of Costs for DCPP	Difference (PG&E - TURN)
2020	596,818	621,662	50,300	-	1,268,780	(671,962)
2021	581,342	671,007	50,300	-	1,302,649	(721,307)
2022	644,111	759,026	50,300	-	1,453,437	(809,326)
2023	735,836	659,493	50,300	-	1,445,629	(709,793)
2024	744,446	691,414	50,300	148,864	1,635,024	(890,578)
2025	893,139	715,945	70,687	470,679	2,150,450	(1,257,311)
2026	765,143	304,419	71,095	477,739	1,618,396	(853,253)
2027	751,995	348,335	21,211	447,530	1,569,071	(817,076)
2028	885,818	363,211	21,635	432,556	1,703,220	(817,402)
2029	773,477	402,036	22,068	470,010	1,667,591	(894,114)
2030	312,811	301,108	22,509	274,091	910,519	(597,708)

As seen from Table 13 above, it appears that PG&E may have understated the annual gross costs of extending the life of DCPP by between $672 million to $1.26 billion. The following figure highlights the huge understatement of costs by PG&E:

Figure 4: PG&E Understates Costs of DCPP by Approximately 50%

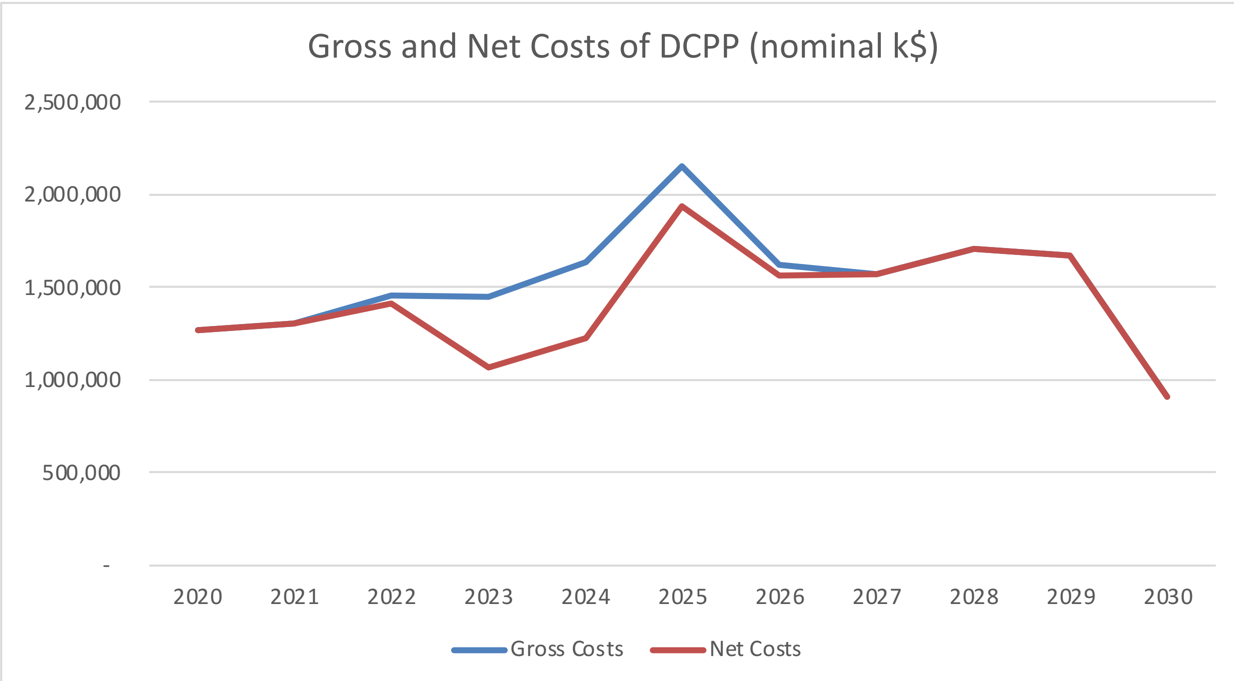


The bottom bar in Figure 4 above represents PG&E's total costs as presented in its testimony; the other bars above that represent various costs that PG&E has failed to include in its cost estimate for DCPP. As seen from Figure 4, PG&E has significantly understated the total costs of DCPP (i.e., 49%- 66% per year).

Q. How does the potential offsetting revenues from DWR and DOE affect the total costs of DCPP?

A. The following figure presents the "gross" and the "net" ratepayer costs of DCPP:

Figure 5: Comparison of Gross and Net Costs of DCPP (nominal k$)



As seen from Figure 5 above, the funds from DWR and DOE only reduce the costs of DCPP from 2022-2026. Those funds essentially reduce total "net" ratepayer costs below costs in 2022 and hold them below that level until 2025.

Q. What is the total "gross" cost of power for DCPP based on TURN's estimates of costs?

A. The following table presents the annual "gross" costs of power:

Table 14: Estimated Average Cost of Power from DCPP (nominal $/MWh)

	TURN Estimated Costs (k$)	TURN Estimated Generation (MWh)	Estimated Cost of Power ($/MWh)
2020	1,268,780	18,672,039	67.95
2021	1,302,649	18,100,948	71.97
2022	1,453,437	16,172,723	89.87
2023	1,445,629	18,317,315	78.92
2024	1,635,024	18,024,788	90.71
2025	2,150,450	16,172,723	132.97
2026	1,618,396	18,466,990	87.64

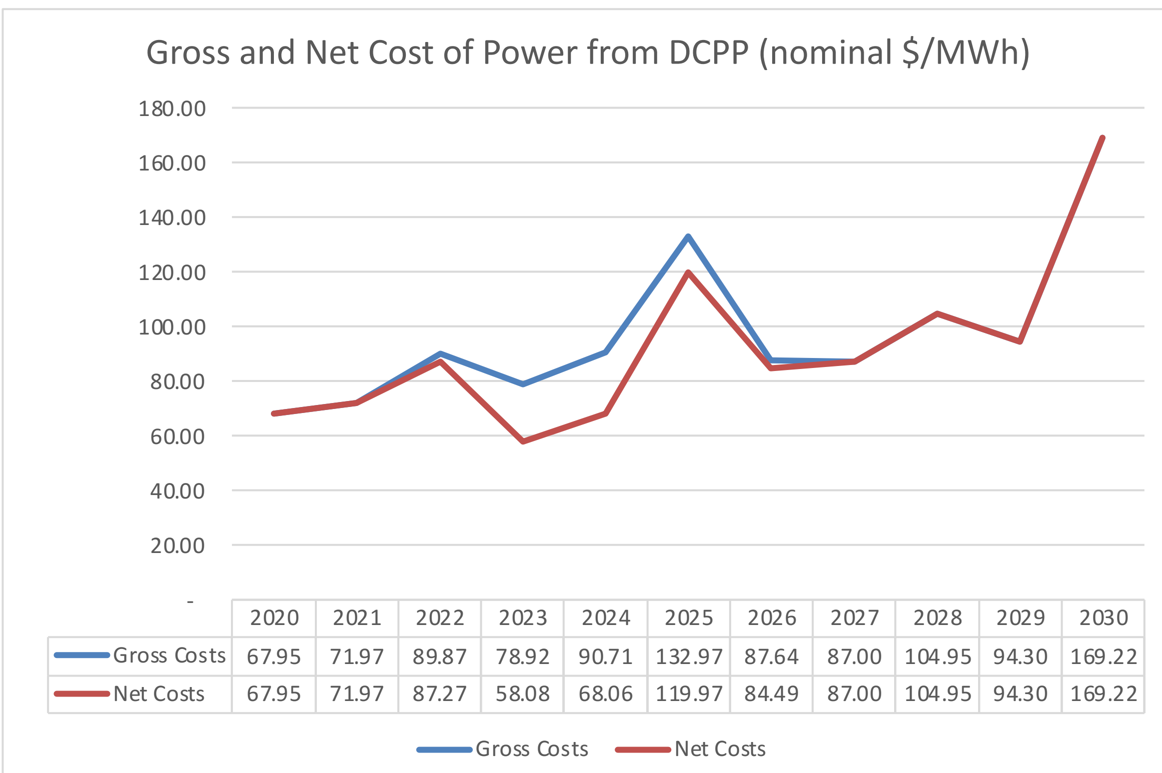
2027	1,569,071	18,035,181	87.00
2028	1,703,220	16,228,096	104.95
2029	1,667,591	17,683,709	94.30
2030	910,519	5,380,717	169.22

As seen from Table 14 above, the "gross" cost of power for DCPP in 2024 through 2030 ranges from a low of $87.0 per MWh up to a high of $169.2 per MWh. The levelized cost of power from 2023-2030 is approximately $97.9 per MWh (2024 $).

Q. How does the potential revenue from DWR and DOE affect the cost of power from DCPP?

A. The following figure presents the "gross" and the "net" cost of power for DCPP:

Figure 6: Comparison of Gross and Net Cost of Power from DCPP (nominal $/MWh)



As seen from Figure 6 above, the "net" cost of power dips in 2023-2024 and is less than the cost of power in 2022. After that, both the gross and net costs of power are at or above the cost of power in 2022.[33]

Q. What can you say about these results?

A. TURN has not examined the reasonableness of the costs that PG&E included in Tables 1 and 2 of its testimony other than to identify costs that PG&E had excluded from those tables.[34] After a more careful analysis, the forecasted costs for Fuel, Outage, Capital, and Total Nuclear Operating Costs could well exceed PG&E's forecasts presented in this case. In addition, the actual costs that PG&E proposes to recover associated with extending the life of DCPP will only be known when PG&E presents its cost recovery proposals in its annual applications.

Setting aside the reasonableness of PG&E's forecasts, it is clear that PG&E has grossly understated the costs of continued operation of DCPP. The levelized "gross" cost of power for DCPP is still almost $98/MWh from 2023-2030, with the "net" cost of power being over $88/MWh over the same period. These are very high costs of power for a baseload resource and raises the question of whether there are more cost-effective GHG-free power sources available to replace DCPP.

Q. Do you have any recommendations for improving these results?

A. The results presented in this testimony are not based on PG&E's DCPP RO model; TURN simply used the structure of the output from that model and made adjustments to certain line items. Thus, the results presented above are not based on detailed tax calculations; instead, it just uses past taxes from the 2020-2023 period. It would be appropriate for PG&E to use its own DCPP RO model and to include forecasts for costs that are not included in Tables 1 and 2 to derive a more realistic estimate of the costs of power for DCPP.

More importantly, it was necessary for TURN to develop estimates for a number of line

[33] The levelized "net" cost of power for 2023-2030 is approximately $88.4/MWh (2024 $).

[34] TURN reserves the right to challenge the reasonableness of proposed costs in a future proceeding where PG&E seeks recovery of additional DCPP costs from ratepayers.

items based on trends from PG&E's GRC because PG&E refused to provide estimates for these categories of costs. TURN's approach results in reasonable approximations but the analysis would be improved by having PG&E develop either historic levels or forecasts of costs that it excluded from Tables 1 and 2 in its testimony.

Finally, PG&E's decision to use the EUCG cost categories in this proceeding without any sort of "crosswalk" to MWCs is unacceptable. This is especially true since PG&E claims that it will return to MWCs when it submits its applications to the Commission for cost recovery.

IV. Conclusion

Q. Does this conclude your opening testimony?

A. Yes, at this time.

APPENDIX 1

RESUME FOR WILLIAM A. MONSEN

RESUME FOR WILLIAM ALAN MONSEN

PROFESSIONAL EXPERIENCE

Principal Consultant
MRW & Associates, LLC
(1989 - Present)
Specialist in electric utility generation planning, resource auctions, demand-side management policy, power market simulation, power project evaluation, and evaluation of customer energy cost control options. Typical assignments include: analysis, testimony preparation and strategy development in large, complex regulatory intervention efforts regarding the economic benefits of utility mergers and QF participation in California's biennial resource acquisition process, analysis of markets for non-utility generator power in the western US, China, and Korea, evaluate the cost-effectiveness of onsite power generation options, sponsor testimony regarding the value of a major new transmission project in California, analyze the value of incentives and regulatory mechanisms in encouraging utility-sponsored DSM, negotiating non-utility generator power sales contract terms with utilities, and utility ratemaking.

Energy Economist
Pacific Gas & Electric Company
(1981 - 1989)
Responsible for analysis of utility and non-utility investment opportunities using SDG&E's Strategic Analysis Model. Performed technical analysis supporting SDG&E's Long Term Planning efforts. Performed Monte Carlo analysis of electric supply and demand uncertainty to quantify the value of resource flexibility. Developed DSM forecasting models used for long-term planning studies. Created an engineering-econometric modeling system to estimate impacts of DSM programs. Responsible for SDG&E's initial efforts to quantify the benefits of DSM using production cost models.

Academic Staff
University of Wisconsin-Madison Solar Energy Laboratory
(1980 - 1981)
Developed simplified methods to analyze efficiency of passive solar energy systems. Performed computer simulation of passive solar energy systems as part of Department of Energy's System Simulation and Economic Analysis working group.

EDUCATION

M.S., Mechanical Engineering, University of Wisconsin-Madison, 1980.
B.S., Engineering Physics, University of California, Berkeley, 1977.

Prepared Testimony and Expert Reports

1. California Public Utilities Commission (CPUC) Applications 90-08-066, 90-08-067, 90-09-001
Prepared Testimony with Aldyn W. Hoekstra regarding the California-Oregon Transmission Project for Toward Utility Rate Normalization (TURN). November 29, 1990.

2. CPUC Application 90-10-003
Prepared Testimony with Mark A. Bachels regarding the Value of Qualifying Facilities and the Determination of Avoided Costs for the San Diego Gas & Electric Company for the Kelco Division of Merck & Company, Inc. December 21, 1990.

3. California Energy Commission Docket No. 93-ER-94
Rebuttal Testimony regarding the Preparation of the 1994 Electricity Report for the Independent Energy Producers Association. December 10, 1993.

4. CPUC Rulemaking 94-04-031 and Investigation 94-04-032
Prepared Testimony Regarding Transition Costs for The Independent Energy Producers. December 5, 1994.

5. Massachusetts Department of Telecommunications and Energy DTE 97-120
Direct Testimony regarding Nuclear Cost Recovery for The Commonwealth of Massachusetts Division of Energy Resources. October 23, 1998.

6. CPUC Application 97-12-039
Prepared Direct Testimony Evaluating an Auction Proposal by SDG&E on Behalf of The California Cogeneration Council. June 15, 1999.

7. CPUC Application 99-09-053
Prepared Direct Testimony of William A. Monsen on Behalf of The Independent Energy Producers Association. March 2, 2000.

8. CPUC Application 99-09-053
Prepared Rebuttal Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association. March 16, 2000.

9. CPUC Rulemaking 99-10-025
Joint Testimony Regarding Auxiliary Load Power and Stand-By Metering on Behalf of Duke Energy North America. July 3, 2000.

10. CPUC Application 99-03-014
Joint Testimony Regarding Auxiliary Load Power and Stand-By Metering on Behalf of Duke Energy North America. September 29, 2000.

11. CPUC Rulemaking 99-11-022
Testimony of the Independent Energy Producers Association Regarding Short-Run Avoided Costs. May 7, 2001.

12. CPUC Rulemaking 99-11-022
Rebuttal Testimony of the Independent Energy Producers Association Regarding Short-Run Avoided Costs. May 30, 2001.

13. CPUC Application 01-08-020
Direct Testimony on Behalf of Bear Mountain, Inc. in the Matter of Southern California Water Company's Application to Increase Rates for Electric Service in the Bear Valley Electric Customer Service Area. December 20, 2001.

14. CPUC Application 00-10-045; 01-01-044
Direct Testimony on Behalf of the City of San Diego. May 29, 2002.

15. CPUC Rulemaking 01-10-024
Prepared Direct Testimony on Behalf of Independent Energy Producers and Western Power Trading Forum. May 31, 2002.

16. CPUC Rulemaking 01-10-024
Rebuttal Testimony on Behalf of Independent Energy Producers and Western Power Trading Forum. June 5, 2002.

17. Arizona Corporation Commission Docket Numbers E-00000A-02-0051, E-01345A-01-0822, E-0000A-01-0630, E-01933A-98-0471, E01933A-02-0069
Rebuttal Testimony on Behalf of AES NewEnergy, Inc. and Strategic Energy L.L.C.: Track A Issues. June 11, 2002.

18. CPUC Application 00-11-038
Testimony on Behalf of the Alliance for Retail Energy Markets in the Bond Charge Phase of the Rate Stabilization Proceeding. July 17, 2002.

19. CPUC Rulemaking 01-10-024
Prepared Testimony in the Renewable Portfolio Standard Phase on Behalf of Center for Energy Efficiency and Renewable Technologies. April 1, 2003.

20. CPUC Rulemaking 01-10-024
Direct Testimony of William A. Monsen Regarding Long-Term Resource Planning Issues on Behalf of the City of San Diego. June 23, 2003.

21. CPUC Application 03-03-029
Testimony of William A. Monsen Regarding Auxiliary Load Power Metering Policy and Standby Rates on Behalf of Duke Energy North America. October 3, 2003.

22. CPUC Rulemaking 03-10-003
Opening Testimony of William A. Monsen Regarding Phase One Issues Related to Implementation of Community Choice Aggregation on Behalf of the Local Government Commission Coalition. April 15, 2004.

23. CPUC Rulemaking 03-10-003
Reply Testimony of William A. Monsen Regarding Phase One Issues Related to Implementation of Community Choice Aggregation on Behalf of Local Government Commission. May 7, 2004.

24. CPUC Rulemaking 04-04-003
Direct Testimony of William A. Monsen Regarding the 2004 Long-Term Resource Plan of San Diego Gas & Electric Company on Behalf of the City of San Diego. August 6, 2004.

25. Sonoma County Assessment Appeals Board
Expert Witness Report of William A. Monsen Regarding the Market Price of Electricity in the Matter of the Application for Reduction of Assessment of Geysers Power Company, LLC, Sonoma County Assessment Appeals Board, Application Nos.: 01/01-137 through 157. September 10, 2004.

26. Sonoma County Assessment Appeals Board
Presentation of Results from Expert Witness Report of William A. Monsen Regarding the Market Price of Electricity in the Matter of the Application for Reduction of Assessment of Geysers Power Company, LLC, Sonoma County Assessment Appeals Board, Application Nos.: 01/01-137 through 157. September 10, 2004.

27. Sonoma County Assessment Appeals Board
Presentation of Rebuttal Testimony and Results of William A. Monsen Regarding the Market Price of Electricity in the Matter of the Application for Reduction of Assessment of Geysers Power Company, LLC, Sonoma County Assessment Appeals Board, Application Nos.: 01/01-137 through 157. October 18, 2004.

28. CPUC Rulemaking 04-03-017
Testimony of William A. Monsen Regarding the Itron Report on Behalf of the City of San Diego. April 13, 2005.

29. CPUC Rulemaking 04-03-017
Rebuttal Testimony of William A. Monsen Regarding the Cost-Effectiveness of Distributed Energy Resources on Behalf of the City of San Diego. April 28, 2005.

30. CPUC Application 05-02-019
Testimony of William A. Monsen SDG&E’s 2005 Rate Design Window Application on Behalf of the City of San Diego. June 24, 2005.

31. CPUC Rulemaking 04-01-025, Phase II
Direct Testimony of William A. Monsen on Behalf of Crystal Energy, LLC. July 18, 2005.

32. CPUC Application 04-12-004, Phase I
Direct Testimony of William A. Monsen on Behalf of Crystal Energy, LLC. July 29, 2005.

33. CPUC Application 04-12-004, Phase I
Rebuttal Testimony of William A. Monsen on Behalf of Crystal Energy, LLC. August 26, 2005.

34. CPUC Rulemakings 04-04-003 and 04-04-025
Prepared Testimony of William A. Monsen Regarding Avoided Costs on Behalf of the Independent Energy Producers. August 31, 2005.

35. CPUC Application 05-01-016 et al.
Prepared Testimony of William A. Monsen Regarding SDG&E's Critical Peak Pricing Proposal on Behalf of the City of San Diego. October 5, 2005.

36. CPUC Rulemakings 04-04-003 and 04-04-025
Prepared Rebuttal Testimony of William A. Monsen Regarding Avoided Costs on Behalf of the Independent Energy Producers. October 28, 2005.

37. Public Utilities Commission of the State of Colorado Docket No. 05A-543E
Answer Testimony of William A. Monsen on Behalf of AES Corporation and the Colorado Independent Energy Association. April 18, 2006.

38. CPUC Application 04-12-004
Prepared Testimony of William A. Monsen Regarding Firm Access Rights on Behalf of Clearwater Port, LLC. July 14, 2006.

39. CPUC Application 04-12-004
Prepared Rebuttal Testimony of William A. Monsen Regarding Firm Access Rights on Behalf of Clearwater Port, LLC. July 31, 2006.

40. Public Utilities Commission of Nevada Dockets 06-06051 and 06-07010
Testimony of William A. Monsen on Behalf of the Nevada Resort Association Regarding Integrated Resource Planning. September 13, 2006.

41. CPUC Application 07-01-047
Testimony of William A. Monsen on Behalf of the City of San Diego Concerning the Application of San Diego Gas & Electric Company for Authority to Update Marginal Costs, Cost Allocation, and Electric Rate Design. August 10, 2007.

42. Public Utilities Commission of the State of Colorado Docket No. 07A-447E
Answer Testimony of William A. Monsen on Behalf of the Colorado Independent Energy Association. April 28, 2008.

43. CPUC Application 08-02-001
Testimony of William A. Monsen On Behalf of the City of Long Beach Gas & Oil Department Concerning the Application of San Diego Gas & Electric Company and Southern California Gas Company for Authority to Revise Their Rates Effective January 1, 2009 In Their Biennial Cost Allocation Proceeding. June 18, 2008.

44. CPUC Application 08-02-001
Rebuttal Testimony of William A. Monsen On Behalf of the City of Long Beach Gas & Oil Department Concerning the Application of San Diego Gas & Electric Company and Southern California Gas Company for Authority to Revise Their Rates Effective January 1, 2009 In Their Biennial Cost Allocation Proceeding. July 10, 2008.

45. CPUC Application 08-06-001 et al.
Prepared Testimony of William A. Monsen On Behalf of the California Demand Response Coalition Concerning Demand Response Cost-Effectiveness and Baseline Issues. November 24, 2008.

46. CPUC Application 08-02-001
Testimony of William A. Monsen On Behalf of the City of Long Beach Gas & Oil Department Concerning Revenue Allocation and Rate Design Issues in The San Diego Gas & Electric Company and Southern California Gas Company Biennial Cost Allocation Proceeding. December 23, 2008.

47. CPUC Application 08-06-034
Testimony of William A. Monsen On Behalf of Snow Summit, Inc. Concerning Cost Allocation and Rate Design. January 9, 2009.

48. CPUC Application 08-02-001
Rebuttal Testimony of William A. Monsen on Behalf of the City of Long Beach Gas & Oil Department Concerning Revenue Allocation and Rate Design Issues in The San Diego Gas & Electric Company and Southern California Gas Company Biennial Cost Allocation Proceeding. January 27, 2009.

49. CPUC Application 08-11-014
Testimony of William A. Monsen on Behalf of the City of San Diego Concerning the Application of San Diego Gas & Electric Company for Authority to Update Cost Allocation and Electric Rate Design. April 17, 2009.

50. Public Utilities Commission of the State of Colorado Docket No. 09-AL-299E
Answer Testimony of William A. Monsen on Behalf of Copper Mountain, Inc. and Vail Summit Resorts, Inc. – Notice of Confidentiality: A Portion of Document Has Been Filed Under Seal. October 2, 2009.

51. Public Utilities Commission of the State of Colorado Docket No. 09-AL-299E Supplemental Answer Testimony of William A. Monsen on Behalf of Copper Mountain, Inc. and Vail Summit Resorts, Inc. October 8, 2009.

52. Public Utilities Commission of the State of Colorado Docket No. 09AL-299E Surrebuttal Testimony of William A. Monsen on Behalf of Copper Mountain, Inc. and Vail Summit Resorts, Inc. December 18, 2009.

53. United States District Court for the District of Montana, Billings Division, Rocky Mountain Power, LLC v. Prolec GE, S De RL De CV Case No. CV-08-112-BLG-RFC, "Evaluation of Business Interruption Loss Associated with a Fault on December 15, 2007, of a Generator Step-Up (GSU) Transformer at the Hardin Generating Station, Located in Hardin, Montana," September 15, 2010.

54. United States District Court for the District of Montana, Billings Division, Rocky Mountain Power, LLC v. Prolec GE, S De RL De CV Case No. CV-08-112-BLG-RFC, "Supplemental Findings and Conclusions Regarding Evaluation of Business Interruption Loss Associated with a Fault on December 15, 2007, of a Generator Step-Up (GSU) Transformer at the Hardin Generating Station, Located in Hardin, Montana," November 2, 2010.

55. CPUC Application 10-05-006
Testimony of William Monsen on Behalf of the Independent Energy Producers Association in Track III of the Long-Term Procurement Planning Proceeding Concerning Bid Evaluation. August 4, 2011.

56. Public Utilities Commission of the State of Colorado Docket No. 11A-869E
Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association, Colorado Energy Consumers and Thermo Power & Electric LLC. June 4, 2012.

57. CPUC Application 11-10-002
Testimony of William A. Monsen on Behalf of the City of San Diego Concerning the Application of San Diego Gas & Electric Company for Authority to Update Marginal Costs, Cost Allocations, and Electric Rate Design. June 12, 2012.

58. Public Utilities Commission of the State of Colorado Docket No 11A-869E
Cross Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association, Colorado Energy Consumers and Thermo Power & Electric LLC. July 16, 2012.

59. CPUC Rulemaking 12-03-014
Reply Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Track One of the Long-Term Procurement Proceeding. July 23, 2012.

60. CPUC Application 12-03-026
Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association concerning Pacific Gas and Electric Company's Proposed Acquisition of the Oakley Project. July 23, 2012.

61. CPUC Application 12-02-013
Testimony of William A. Monsen on Behalf of Snow Summit, Inc. Concerning Revenue Requirement, Marginal Costs, and Revenue Allocation. July 27, 2012.

62. CPUC Application 12-03-026
Rebuttal Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Pacific Gas and Electric Company's Proposed Acquisition of the Oakley Project. August 3, 2012.

63. CPUC Application 12-02-013
Rebuttal Testimony of William A. Monsen on Behalf of Snow Summit, Inc. in Response to the Division of Ratepayer Advocates' Opening Testimony. August 27, 2012.

64. Public Utilities Commission of the State of Colorado Docket No 11A-869E
Supplemental Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association, Colorado Energy Consumers and Thermo Power & Electric LLC. September 14, 2012.

65. Public Utilities Commission of the State of Colorado Docket No 11A-869E
Supplemental Cross Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association, Colorado Energy Consumers and Thermo Power & Electric LLC. October 5, 2012.

66. Public Utilities Commission of the State Oregon Docket No UM 1182
Northwest and Intermountain Power Producers Coalition Direct Testimony of William A. Monsen. November 16, 2012.

67. Public Utilities Commission of the State Oregon Docket No UM 1182
Northwest and Intermountain Power Producers Coalition Exhibit 300 Witness Reply Testimony of William A. Monsen. January 14, 2013.

68. CPUC Rulemaking 12-03-014
Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Track 4 of the Long-Term Procurement Plan Proceeding. September 30, 2013.

69. CPUC Rulemaking 12-03-014
Rebuttal Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Track 4 of the Long-Term Procurement Plan Proceeding. October 14, 2013.

70. CPUC Application 13-07-021
Response Testimony of William A. Monsen on Behalf of Interwest Energy Alliance Regarding the Proposed Merger of NV Energy, Inc. with Midamerican Energy Holdings Company. October 24, 2013.

71. CPUC Application 13-12-012
Testimony of William A. Monsen on Behalf of Commercial Energy Concerning SDG&E’s 2015 Gas Transmission and Storage Rate Application. August 11, 2014.

72. Public Utilities Commission of Nevada Docket No. 14-05003
Direct Testimony of William A. Monsen on Behalf of Ormat Nevada Inc. August 25, 2014.

73. CPUC Application 13-12-012/I.14-06-016
Rebuttal Testimony of William A. Monsen on Behalf of Commercial Energy Concerning SDG&E's 2015 Gas Transmission & Storage Application. September 15, 2014.

74. CPUC Rulemaking 12-06-013
Testimony of William A. Monsen on Behalf of Vote Solar Concerning Residential Electric Rate Design Reform. September 15, 2014.

75. CPUC Rulemaking 13-12-010
Opening Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Regarding Phase1A of the 2014 Long-Term Procurement Planning Proceeding. September 24, 2014.

76. CPUC Application 14-01-027
Testimony of William A. Monsen on Behalf of the City of San Diego Concerning the Application of SDG&E for Authority to Update Electric Rate Design. November 14, 2014.

77. CPUC Application 14-01-027
Rebuttal Testimony of William A. Monsen on Behalf of the City of San Diego Concerning the Application of SDG&E for Authority to Update Electric Rate Design. December 12, 2014.

78. CPUC Rulemaking 13-12-010
Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Regarding Supplemental Testimony in Phase1A of the 2014 Long-Term Procurement Planning Proceeding. December 18, 2014.

79. CPUC Application 14-06-014
Opening Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Regarding Standby Rates in Phase 2 of SCE’s 2015 Test Year General Rate Case. March 13, 2015.

80. CPUC Application 14-04-014
Opening Testimony of William A. Monsen on Behalf of ChargePoint, Inc. Regarding SDG&E's Vehicle Grid Integration Pilot Program. March 16, 2015.

81. Public Utilities Commission of the State of Hawaii Docket No. 2015-0022
Direct Testimony on Behalf of AES Hawaii, Inc. July 20, 2015.

82. Federal Energy Regulatory Commission Docket Nos. EL02-60-007 and EL02-62-006 (Consolidated)
Prepared Answering Testimony of William A. Monsen on Behalf of Iberdrola Renewables Regarding Rate Impacts of the Iberdrola Contract. July 21, 2015.

83. Public Utilities Commission of Nevada Docket Nos. 15-07041 and 15-07042
Prepared Direct Testimony of William A. Monsen on Behalf of the Alliance for Solar Choice (TASC). October 27, 2015.

84. Arizona Corporation Commission Docket No. E-00000J-14-0023
Rebuttal Testimony of William A. Monsen on Behalf of the Alliance for Solar Choice (TASC). April 7, 2016.

85. Arizona Corporation Commission Docket No. E-01461A-15-0363
The Energy Freedom Coalition of America's (EFCA) Direct Testimony of William A. Monsen. June 1, 2016.

86. Public Utilities Commission of the State of Colorado Proceeding No. 16AL-0048-E
Answer Testimony of William A. Monsen on Behalf of Vail Summit Resorts, Inc. June 6, 2016.

87. CPUC Application 15-04-012
Direct Testimony of William A. Monsen on Behalf of the City of San Diego Regarding Marginal Costs, Revenue Allocation, and Rate Design. July 5, 2016.

88. Arizona Corporation Commission Docket No. E-01461A-15-0363
The Energy Freedom Coalition of America's (EFCA) Direct Testimony of William A. Monsen and Patrick J. Quinn. July 29, 2016.

89. Arizona Corporation Commission Docket No. E-01461A-15-0363
The Energy Freedom Coalition of America's (EFCA) Rebuttal Testimony of William A. Monsen. August 15, 2016.

90. CPUC Application 15-04-012
Rebuttal Testimony of William A. Monsen on Behalf of the City of San Diego Regarding Marginal Costs, Revenue Allocation, and Rate Design. October 14, 2016.

91. Public Utilities Commission of Nevada Docket No. 16-07001 and 16-08027

Direct Testimony of William A. Monsen on Behalf of Ormat Nevada Inc. November 10, 2016.

92. CPUC Application 15-04-012
Joint Supplemental Testimony of Cynthia Fang on Behalf of San Diego Gas & Electric Company, R. Thomas Beach on Behalf of The Solar Energy Industries Association, Maurice Brubaker on Behalf of The Federal Executive Agencies, And William A. Monsen on Behalf of the City of San Diego. November 14, 2016.

93. CPUC Application 15-04-012
Joint Supplemental Testimony of Cynthia Fang on Behalf of San Diego Gas & Electric Company, Nathan Chau on Behalf of The Office of Ratepayer Advocates, William Monsen on Behalf of the City of San Diego and Alison M. Lechowicz on Behalf of the California City-County Street Light Association. November 16, 2016.

94. Public Utilities Commission of Nevada Docket No. 16-07001 and 16-08027
Supplemental Direct Testimony of William A. Monsen on Behalf of Ormat Nevada Inc. November 17, 2016.

95. Public Utilities Commission of the State of Colorado Proceeding No. 16A-0396E
Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association. December 9, 2016.

96. JAMS Arbitration Case No: 1220049998
Declaration of William A. Monsen on Behalf of Watson Cogeneration Company and Camino Energy, LLC. January 11, 2017.

97. CPUC Application A.16-06-013
Direct Testimony of William A. Monsen and Anna Casas on Behalf of South San Joaquin Irrigation District. March 15, 2017.

98. CPUC Application A.16-09-003
Direct Testimony of William A. Monsen on Behalf of the California Solar Energy Industries Association in Southern California Edison's Rate Design Window Application. April 28, 2017.

99. American Arbitration Association Case No. 01-16-0002-2121
Claimant Buena Vista Biomass Power, LLC's Expert Witness Disclosure. August 18, 2017.

100. American Arbitration Association Case No. 01-16-0005-1073
Expert Report of William A. Monsen on Behalf of Saguaro Power Company. September 15, 2017.

101. CPUC Application A.17-05-004
Direct Testimony of William A. Monsen on Behalf of Snow Summit LLC in Bear Valley

Electric Services General Rate Case Application. September 29, 2017.

102. CPUC Application A.17-05-004
Rebuttal to Testimony by the Office of Ratepayer Advocates by William A. Monsen on Behalf of Snow Summit LLC in Bear Valley Electric Services General Rate Case Application. October 27, 2017.

103. Superior Court of California, County of San Diego Case No. 37-2015-00014540-CU-MC-CTL
Declaration in Support of Defendant's Motion for Summary Judgement, or in the Alternative, Motion for Summary Adjudication. February 3, 2018.

104. CPUC Application 17-06-030
Testimony of William A. Monsen on Behalf of the Coalition for Affordable Street Lights Concerning Street Light Rates and LED Conversions. March 23, 2018.

105. CPUC Application 17-09-006
Direct Testimony of William A. Monsen on Behalf of The Western Manufactured Housing Communities Association in Pacific Gas & Electric's 2018 Gas Cost Allocation and Rate Design Proceeding. June 20, 2018.

106. JAMS Arbitration No. 1100088728
Expert Report by William A. Monsen for Aera Energy, LLC. July 24, 2018.

107. JAMS Arbitration No. 1100088728
Conclusions and Summary of Opinions of William A. Monsen for Aera Energy, LLC. July 24, 2018.

108. CPUC Application 18-03-003
Prepared Joint Testimony of Brandon Charles on Behalf of the California Farm Bureau Federation, William A. Monsen on Behalf of the City of San Diego and Cynthia Fang on Behalf of San Diego Gas and Electric Company. August 20, 2018.

109. CPUC Application 18-03-003
Prepared Supplemental Testimony of Brandon Charles on Behalf of the California Farm Bureau Federation, William A. Monsen on Behalf of the City of San Diego and Cynthia Fang on Behalf of San Diego Gas and Electric Company. September 27, 2018.

110. CPUC Application 19-03-002
Direct Testimony of William A. Monsen on Behalf of the City of San Diego Regarding Marginal Costs, Revenue Allocation, and Rate Design. April 6, 2020.

111. CPUC Application 19-11-019
Direct Testimony of William A. Monsen and Carlo Bencomo-Jasso on Behalf of the California Farm Bureau Federation Concerning Revenue Allocation and Agricultural Rate Design. November 20, 2020.

112. Rachel Kropp et al vs Southern California Edison Company Case No. BC698926
Declaration of William A. Monsen on Behalf of Brent & Foil, LLP. December 24, 2020.

113. CPUC Application 19-11-019
Reply Testimony of William A. Monsen and Carlo Bencomo-Jasso on Behalf of the California Farm Bureau Federation Concerning Revenue Allocation and Agricultural Rate Design. February 26, 2021.

114. CPUC Application 20-10-012
Direct Testimony of William A. Monsen on Behalf of the California Farm Bureau Federation Concerning Revenue Allocation and Agricultural Rate Design. July 26, 2021.

115. Public Utilities Commission of the State of Colorado Docket No. 21A-0141E
Hearing Exhibit No. 1000 Answer Testimony and Attachments of William A. Monsen on Behalf of the Colorado Independent Energy Association. October 11, 2021.

116. Kern County Assessment Appeals Board
Testimony of William A. Monsen on Behalf of Clearway Energy Regarding Differences Between Standard Offer Contracts and Modern PPAs. October 19, 2021.

117. Public Utilities Commission of the State of Colorado Docket No. 21A-0141E
Hearing Exhibit No. 1001 Cross-Answer Testimony and Attachments of William A. Monsen on Behalf of the Colorado Independent Energy Association. November 12, 2021.

118. Public Utilities Commission of the State of Colorado Docket No. 21A-0141E
Hearing Exhibit No. 1002 Testimony and Attachments in Opposition to the Non-Unanimous Partial Settlement Agreement of William A. Monsen on Behalf of the Colorado Independent Energy Association. December 6, 2021.

119. CPUC Application 21-06-021
Prepared Testimony of William A. Monsen Addressing Generation Supply Costs on Behalf of The Utility Reform Network (TURN). June 13, 2022

120. CPUC Application 22-05-016
Prepared Testimony of William A. Monsen Addressing Generation Supply Costs on Behalf of The Utility Reform Network. March 27, 2023.

121. CPUC Application 22-08-010
Direct Testimony of William A. Monsen on Behalf of Snow Summit LLC in Bear Valley Electric Services General Rate Case. May 26, 2023 (amended June 6, 2023).

122. CPUC Application 22-08-010
Rebuttal Testimony of William A. Monsen on Behalf of Snow Summit LLC in Bear Valley Electric Services General Rate Case. June 16, 2023.

APPENDIX 2

PUBLIC ATTACHMENTS

PG&E DATA RESPONSES TO TURN

EXCERPT FROM TURN TESTIMONY IN A.16-08-006

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q001		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q001		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 001

Provide all materials (including recorded cost data and cost forecasts) shared by PG&E or its contractors with the California Energy Commission to support that agency's preparation of a cost comparison report pursuant to Public Resources Code §25233.2.

ANSWER 001

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. Requests for information related to data used by the California Energy Commission to support that agency's preparation of a cost comparison report should be directed to the California Energy Commission.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q002		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q002		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 002

Identify the amounts of funding to support Diablo Canyon extended operations already provided or committed by the following entities:

a) California Department of Water Resources

b) Any other state government entity

c) US Department of Energy

d) Any other federal government entity

ANSWER 002

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. Ratepayer funds will not be used to support the transition to extended operations, and costs of extended operations are to be addressed in a future proceeding. PG&E is not seeking cost recovery in connection with the rulemaking. Notwithstanding and without waiving the foregoing objection, PG&E notes that (1) it has entered into an agreement with the California Department of Water Resources to provide up to $1.4 billion in funding to support the transition to extended operations; and (2) the U.S. Department of Energy has conditionally awarded credits valued at up to $1.1 billion to Diablo Canyon as part of its Civil Nuclear Credit program.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q003		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q003		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 003

For any amounts of funding received from, or committed by, entities identified in Question (2), provide the following information:

a) Timing of disbursements

b) Method by which PG&E will hold funds prior to their use to cover specific expenditures

c) PG&E's specific use of any funds received from the state or federal government to date including the projects or activities supported by these funds.

d) PG&E's forecast of the amounts of these funds to be allocated to specific activities needed to support extended operations.

ANSWER 003

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. As noted in D.22-12-005, the assessment of whether PG&E's costs are eligible to be included under the AB 180 and SB 846 agreements is to be determined through a process overseen by the California Department of Water Resources, and any funding amounts provided through the Civil Nuclear Credit program are to be determined by the DOE, not by the Commission. Ratepayer funds will not be used to support the transition to extended operations, and costs of extended operations are to be addressed in a future proceeding. Notwithstanding and without waiving the foregoing objection, PG&E will report the costs entered into the DCTRMA and DCEOBA within 15 days after PG&E receives the result of DWR's semi-annual true-up review, until such time that the DCTRMA and/or DCEOBA are no longer being used.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q004		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q004		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 004

Provide PG&E's forecast of costs relating to the NRC relicensing process with a breakdown by cost category including a breakdown of the amounts associated with internal staffing vs. outside contractors/consultants.

ANSWER 004

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. Ratepayer funds will not be used to support the transition to extended operations, and costs of extended operations are to be addressed in a future proceeding. PG&E is not seeking cost recovery of NRC relicensing process costs in connection with the rulemaking.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q005		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q005		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 005

What methods or processes has PG&E adopted, or does PG&E plan to adopt, to track the time devoted by its employees and contractors to activities relating to Diablo Canyon extended operations?

ANSWER 005

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. Ratepayer funds will not be used to support the transition to extended operations, and costs of extended operations are to be addressed in a future proceeding. PG&E is not seeking cost recovery in connection with the rulemaking. Notwithstanding and without waiving the foregoing objection, PG&E notes that this issue was addressed in D.22-12-005. In that decision, the Commission explains that the California Department of Water Resources “is tasked with developing the methodology and process for reviewing costs recorded under the AB 180 and SB 846 agreements (with review of SB 846-related funds performed in coordination with the Commission); therefore, the question of whether PG&E’s recorded costs will be eligible to be funded under these agreements is to be overseen and determined through a DWR, and not a Commission, process.”

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q006		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q006		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 006

Identify all recorded costs to date spent by PG&E employees or contractors on activities relating to Diablo Canyon extended operations.

ANSWER 006

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. Ratepayer funds will not be used to support the transition to extended operations, and costs of extended operations are to be addressed in a future proceeding. PG&E is not seeking cost recovery in connection with the rulemaking. Notwithstanding and without waiving the foregoing objection, PG&E will report the costs entered into the DCTRMA and DCEOBA within 15 days after PG&E receives the result of DWR's semi-annual true-up review, until such time that the DCTRMA and/or DCEOBA are no longer being used, as required by D.22-12-005.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_001-Q007		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_001-Q007		
Request Date:	March 9, 2023	Requester DR No.:	001
Date Sent:	March 24, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

QUESTION 007

Is PG&E allocating the costs of work by its staff and contractors in R.23-01-007 to extended operations?

a) If yes, how does PG&E plan to recover these costs from sources outside of rates?

b) If no, how does PG&E plan to recover these costs in rates?

ANSWER 007

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this rulemaking proceeding. Notwithstanding and without waiving the foregoing objection, PG&E notes costs associated with the transition to extended operations will be paid for using non-ratepayer funding streams (e.g., the contract between PG&E and the California Department of Water Resources). PG&E is not seeking cost recovery in connection with the rulemaking. Moreover, PG&E notes that this issue was addressed in D.22-12-005. In that decision, the Commission explains that the California Department of Water Resources "is tasked with developing the methodology and process for reviewing costs recorded under the AB 180 and SB 846 agreements (with review of SB 846-related funds performed in coordination with the Commission); therefore, the question of whether PG&E's recorded costs will be eligible to be funded under these agreements is to be overseen and determined through a DWR, and not a Commission, process."

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q001		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q001		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

The following questions relate to PG&E’s May 19, 2023, testimony:

QUESTION 001

Relating to the showing of historical costs in Table 1, provide a comparison of the cost categories and values shown for historical years (2017-2022) with the itemized breakdown provided in PG&E’s Results of Operations workpapers for “Electric Generation – Diablo Canyon Power Plant” in the last three General Rate Cases.

a. For 2020-2022 data, explain any differences between Table 1 and the information provided in Ex. PG&E-10 (Results of Operations), Chapter 17 Workpapers, page WP 17-94 (A.21-06-021). Specifically explain any discrepancies between the values shown for “Total Nuclear Operating Costs” on line 9 of Table 1 and the Values for “Operating Expenses - subtotal” shown on line 18.

b. For the 2017-2019 cost data, explain any differences between Table 1 and the information provided in Ex. PG&E-10, Chapter 16 workpapers, page 16-132 (A.18-12-009). Specifically explain any discrepancies between the values shown for “Total Nuclear Operating Costs” on line 9 of Table 1 and the Values for “Operating Expenses – subtotal” shown on line 18.

ANSWER 001

PG&E objects to this data request on grounds that it is irrelevant, outside the scope of this proceeding, and burdensome. Notwithstanding the aforementioned objection and without waiving the objection, PG&E responds as follows: no such analysis exists and conducting such analysis would be burdensome and unlikely to lead to admissible evidence.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q002		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q002		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 002

Identify whether the following costs are included in Table 1. If included, identify which line item incorporates these costs and provide the specific values for each historical year. If excluded, provide the costs for each historical year:

a. Operating expenses – transmission (as shown in PG&E Results of Operations modeling in the General Rate Case)
b. Operating expenses – uncollectibles (as shown in PG&E Results of Operations modeling in the General Rate Case)
c. Administrative and General costs (as shown in PG&E Results of Operations modeling in the General Rate Case)
d. Franchise and SFGR tax requirement (as shown in PG&E Results of Operations modeling in the General Rate Case)
e. Taxes – property, payroll, business, other, start corporation franchise and federal income (as shown in PG&E Results of Operations modeling in the General Rate Case)
f. Depreciation (as shown in PG&E Results of Operations modeling in the General Rate Case)
g. Net for return (as shown in PG&E Results of Operations modeling in the General Rate Case)
h. Pensions and benefits, including the Short-Term Incentive Program, workers compensation, and vacation payoffs to departing employees.
i. Nuclear property and liability insurance
j. Materials and supplies inventory
k. Refueling outage costs

ANSWER 002

PG&E objects to the request to provide values and costs for each line item on the grounds that such itemized costs are irrelevant, outside the scope of this proceeding, and burdensome. The requested calculations are not related to the scope of this proceeding. Notwithstanding the aforementioned objection and without waiving the objection, PG&E responds as follows:

a. Operating expenses – transmission is excluded from Table 1.
b. Operating expenses – uncollectibles is excluded from Table 1.
c. Administrative and General (A&G) costs – A portion of A&G costs are shown in the Capital line as capitalized A&G, except for contract A&G spend, which is excluded from Table 1.
d. Franchise and SFGR tax requirement is excluded from Table 1.
e. Taxes – property, payroll, business, other, start corporation franchise and federal income is excluded from Table 1, except for payroll taxes which is included in the Support Services line.
f. Depreciation is excluded from Table 1.
g. Net for return is excluded from Table 1.
h. Pensions and benefits, including the Short-Term Incentive Program, workers compensation, and vacation payoffs to departing employees is included in Table 1. See Support Services line.
i. Nuclear property insurance is excluded from Table 1. Nuclear liability insurance is included in Table 1. See Support Services line.
j. Materials and supplies inventory is excluded from Table 1.
k. Refueling outage costs is included in Table 1. See Outages line.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q003		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q003		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 003

For the costs included in Table 2, identify whether the following costs are included. If included, identify which line item incorporates these costs and provide the estimated values for each year. If excluded, provide the forecasted estimated costs for each future year:

a. Operating expenses – transmission (as shown in PG&E Results of Operations modeling in the General Rate Case)
b. Operating expenses – uncollectibles (as shown in PG&E Results of Operations modeling in the General Rate Case)
c. Administrative and General costs (as shown in PG&E Results of Operations modeling in the General Rate Case)
d. Franchise and SFGR tax requirement (as shown in PG&E Results of Operations modeling in the General Rate Case)
e. Taxes – property, payroll, business, other, start corporation franchise and federal income (as shown in PG&E Results of Operations modeling in the General Rate Case)
f. Depreciation (as shown in PG&E Results of Operations modeling in the General Rate Case)
g. Net for return (as shown in PG&E Results of Operations modeling in the General Rate Case)
h. Pensions and benefits, including the Short-Term Incentive Program, workers compensation, and vacation payoffs to departing employees.
i. Nuclear property and liability insurance
j. Materials and supplies inventory
k. Mitigation fees for the State Water Control Board to address the entrainment impacts resulting from the continued ocean water intakes at DCPP.
l. Refueling outage costs

ANSWER 003

PG&E objects to the request to provide values and costs for each line item on the grounds that it is irrelevant, outside the scope of this proceeding and burdensome. The requested calculations are not related to the scope of this proceeding. Notwithstanding and without waiving the foregoing objection, PG&E responds as follows:

a. Operating expenses – transmission is excluded from Table 2.
b. Operating expenses – uncollectibles is excluded from Table 2.
c. Administrative and General (A&G) costs -- A portion of A&G costs are shown in the Capital line as capitalized A&G, except for contract A&G spend, which is excluded from Table 2.
d. Franchise and SFGR tax requirement is excluded from Table 2.
e. Taxes – property, payroll, business, other, start corporation franchise and federal income are excluded from Table 2 except for payroll taxes which is included in the Support Services line.
f. Depreciation is excluded from Table 2.
g. Net for return is excluded from Table 2.
h. Pensions and benefits, including the Short-Term Incentive Program, workers compensation, and vacation payoffs to departing employees is included in Table 2. See Support Services line.
i. Nuclear property insurance is excluded from Table 2. Nuclear liability insurance is included in Table 2. See Support Services line.
j. Materials and supplies inventory is excluded from Table 2.
k. Mitigation fees for the State Water Control Board to address the entrainment impacts resulting from the continued ocean water intakes at DCPP is included in Table 2. See Operations line.
l. Refueling outage costs are included in Table 2. See Outages line.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q004		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q004		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 004

Have employee retention and severance payments been included in the data shown in Tables 1 or 2? If not, identify the amount of such payments by historic year and for each forecasted future year.

ANSWER 004

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this proceeding. Notwithstanding the aforementioned objection and without waiving the objection, PG&E responds as follows:

In regard to historical costs, employee retention and severance payments are not included in PG&E's Table 1.

In regard to forecast costs, PG&E assumes this question refers to an employee retention program beyond what was already approved in D.18-11-024. As stated in PG&E's May 19, 2023, testimony, costs associated with such an employee retention program are not included in the forecast table (Table 2) of the testimony. PG&E anticipates submitting a new application to present PG&E's proposal of the employee retention program, pursuant to Pub. Util. Code § 712.8(f)(2) in the future. PG&E will provide an update to its forecasted costs following submission of this application in accordance with guidance by the CPUC.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q005		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q005		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 005

Identify the ratemaking treatment PG&E assumes in its forecasts shown in Table 2 for nuclear fuel.

a. Is PG&E proposing any return, financing or carrying costs on nuclear fuel inventory? Identify the ratemaking treatment PG&E assumes in its forecasts.

b. To the extent that PG&E is proposing any different ratemaking treatment of fuel costs than would result in different costs to ratepayers than is assumed in the forecasts provided in this testimony, explain these differences.

ANSWER 005

PG&E objects to this data request on grounds that it is irrelevant and outside the scope of this proceeding. Notwithstanding the aforementioned objection and without waiving the objection, PG&E responds as follows:

PG&E interprets this question as referring to Table 2, line 12 ("Fuel") from its May 19, 2023, testimony. As such,

a. Assuming that the CPUC adopts new retirement dates for Diablo Canyon, PG&E expects to file an application for extended operations cost recovery in the first quarter of 2024 for rates effective beginning on January 1, 2025. At the time of such an application, PG&E will provide a cost recovery proposal specific to nuclear fuel but is not proposing cost recovery or a ratemaking proposal specific to any return, financing or carrying costs on nuclear fuel inventory in this proceeding. Pursuant to Public Utilities Code § 712.8(h)(1), Diablo Canyon costs including fuel costs "shall be recovered as an operating expense and shall not be eligible for inclusion in the operator's rate base."

   The costs presented in Table 2, line 12 ("Fuel") do not include any return, financing or carrying costs. To the extent that PG&E seeks to recover additional costs, it will do so in its future application subject to the Public Utilities Code § 712.8(h)(1) statutory requirements.

b. Please see the response to subpart a above.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q006		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q006		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 006

Explain the ratemaking treatment PG&E is proposing for capital additions during the period of extended operations.

a. Does PG&E intend to request recovery of any return, carrying or financing costs for capital expenditures or capital additions such as AFUDC? If so, identify and explain the ratemaking treatment PG&E intends to seek.
b. Clarify whether the response to (a) is consistent with the approach used to develop the forecasts shown in Table 2.

ANSWER 006

PG&E objects to this data request on grounds that it is irrelevant, not timely, and outside the scope of this proceeding. This proceeding considers the development of cost recovery mechanisms and processes, and not ratemaking proposals. Notwithstanding the aforementioned objection and without waiving the objection, PG&E responds as follows:

PG&E is not proposing a specific cost recovery or a ratemaking proposal addressing any return, carrying or financing costs for capital expenditures or capital additions in this proceeding. As stated in PG&E's May 19, 2023, testimony, assuming that the Commission adopts new retirement dates for Diablo Canyon, PG&E expects to file an application for extended operations cost recovery in the first quarter of 2024 for rates effective beginning on January 1, 2025. At the time of such an application, PG&E's cost recovery request will include a cost forecast that reflects best information available at that time.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q007		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q007		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 007

Provide actual annual generation at DCPP Unit 1 and Unit 2 (shown separately) for each year between 2010-2022.

ANSWER 007

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding. Subject to and notwithstanding the foregoing objection, PG&E responds that historical annual electric generation of DCPP Unit 1 and Unit 2 are publicly available through PG&E's FERC Form 1 Reports. FERC Form 1 Reports from 2018-2022 can be found at the following links with historical annual electric generation at pages 401a and 408 and can be found at the following links.

2018 FERC Form 1: https://www.pge.com/pge_global/common/pdfs/about-pge/company-information/regulation/FERCForm1.pdf

2019 FERC Form 1: https://www.pge.com/pge_global/common/pdfs/about-pge/company-information/regulation/FERCForm1-2019.pdf

2020 FERC Form 1: https://www.pge.com/pge_global/common/pdfs/about-pge/company-information/regulation/FERCForm1-2020.pdf

2021 FERC Form 1: https://www.pge.com/pge_global/common/pdfs/about-pge/company-information/regulation/FERCForm1-2021.pdf

2022 FERC Form 1: https://www.pge.com/pge_global/common/pdfs/about-pge/company-information/regulation/FERCForm1-2022.pdf

FERC Form 1 Reports from 2010 – 2017 are available in FERC's eLibrary using the following search parameters:

- **Category**: Submittal
- **Industry Sector**: Electric
- **Document Type**: Report/Form

  - **Form 1** – Annual Rpt. For Major Electric Utilities, Licensees & Others
- **Author/Affiliation**: Pacific Gas and Electric Company

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q008		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q008		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 008

Provide a forecast of expected annual generation at DCPP Unit 1 and Unit 2 (shown separately) for each year between 2023-2030.

ANSWER 008

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q009		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q009		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:		Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 009

Identify expected outage schedules at DCPP Unit 1 and 2 through 2030.

ANSWER 009

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q010		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q010		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 010

Identify the amount of payments received, or expected to be received, from the Department of Water Resources for the monthly performance-based disbursement equal to $7/MWh generated prior to the start of extended operations (see Public Resources Code §25548.3(c)(16). Provide this information for each relevant calendar year.

a. Are these payments included in any line item shown in Table 1 or Table 2? If yes, identify the specific line items and the amounts included for each year.

ANSWER 010

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding as such amounts are not CPUC-jurisdictional costs. Notwithstanding the aforementioned objection and without waiving the objection, PG&E responds as follows:

Payment amounts from the Department of Water Resources related to the monthly performance-based disbursement are not included in Table 1 or Table 2.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q011		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q011		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 011

Identify the amounts expected to be recovered in rates by PG&E in each future year tied to the $13/MWh (in 2022 dollars) volumetric payment authorized pursuant to Public Utilities Code §712.8(f)(5)

a. Are these ratepayer obligations included in any line item shown in Table 2? If yes, identify the specific line item and the amounts included for each year.

ANSWER 011

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding. Subject to and notwithstanding the foregoing objection, PG&E clarifies that any payment amounts related to the referenced volumetric payment would be presented in a future application for extended operations cost recovery. Notwithstanding and without waiving the foregoing objection, PG&E responds as follows. Payment amounts related to the referenced volumetric payment are not included in Table 2.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q012		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q012		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 012

Identify the amounts expected to be recovered in rates by PG&E in each future year tied to the $50 million/unit (in 2022 dollars) fixed payment authorized pursuant to Public Utilities Code §712.8(f)(6)(A).

a. Are these ratepayer obligations included in any line item shown in Table 2? If yes, identify the specific line item and the amounts included for each year.

ANSWER 012

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding. Subject to and notwithstanding the foregoing objection, PG&E clarifies that any payment amounts related to the referenced fixed payment would be presented in a future application for extended operations cost recovery. Notwithstanding and without waiving the foregoing objection, PG&E responds as follows. Payment amounts related to the referenced fixed payment are not included in Table 2.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_002-Q013		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_002-Q013		
Request Date:	May 20, 2023	Requester DR No.:	002
Date Sent:	June 7, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

The following questions relate to PG&E's May 19, 2023, testimony:

QUESTION 013

Identify the amounts expected to be recovered in rates by PG&E in each future year for the liquidated damages balancing account authorized pursuant to Public Utilities Code §712.8(g). Provide the expected collection schedule for these amounts.

a. Are these ratepayer obligations included in any line item shown in Table 1 or Table 2? If yes, identify the specific line item and the amounts included for each year.

ANSWER 013

PG&E objects to this data request on the grounds that it is irrelevant and outside the scope of this proceeding. Subject to and notwithstanding the foregoing objection, PG&E clarifies that any payment amounts related to the referenced liquidated damages balancing account would be presented in a future application for extended operations cost recovery. Notwithstanding and without waiving the foregoing objection, PG&E responds as follows. Payment amounts related to the referenced liquidated damages balancing account are not included in Table 1 and Table 2.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_004-Q001		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_004-Q001		
Request Date:	June 9, 2023	Requester DR No.:	004
Date Sent:	June 26, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

QUESTION 001

Relating to the showing of historical Diablo Canyon costs in Table 1 of PG&E's May 19, 2023, testimony, provide these same costs using the cost categories proposed in PG&E's June 9 testimony (pages 3-3 through 3-7) as follows:

a. Operations and Maintenance Costs for each MWC (see page 3-4, Item (2))
   i. MWC AB
   ii. MWC AK
   iii. MWC BP
   iv. MWC BQ
   v. MWC BR
   vi. MWC BS
   vii. MWC BT
   viii. MWC BV
   ix. MWC OM
   x. MWC OS
   xi. MWC IG
b. Common Costs (see page 3-4, item (3))
c. Fuel and Fuel Inventory Costs (see page 3-5, item (5))

ANSWER 001

PG&E objects to this data request on the grounds that it is not timely, is premature, and not in the scope of this proceeding. Subject to and notwithstanding the foregoing objection, PG&E responds that the requested information does not exist. The May 19, 2023, testimony reflects PG&E's most recent and complete set of cost information, presented in its September 2022 Department of Energy (DOE) Civil Nuclear Credit (CNC) program, and updated to reflect actual 2022 costs. However, the costs in the testimony are presented in the EUCG industry accounting format because the DOE required that the CNC applications be submitted using that methodology. The cost categories identified in this question from the June 9, 2023, testimony are intended for a future cost recovery application proceeding.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_004-Q002		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_004-Q002		
Request Date:	June 9, 2023	Requester DR No.:	004
Date Sent:	June 26, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

QUESTION 002

Relating to the showing of estimated future Diablo Canyon costs in Table 2 of PG&E's May 19, 2023, testimony, identify the amounts in the Table 2 forecast associated with each of the following cost categories proposed in PG&E's June 9 testimony (pages 3-3 through 3-7) as follows:

a. Operations and Maintenance Costs for each MWC (see page 3-4, Item (2))
    i. MWC AB
    ii. MWC AK
    iii. MWC BP
    iv. MWC BQ
    v. MWC BR
    vi. MWC BS
    vii. MWC BT
    viii. MWC BV
    ix. MWC OM
    x. MWC OS
    xi. MWC IG
b. Common Costs (see page 3-4, item (3))
c. Expense Project Costs (see page 3-4, item (4))
d. Fuel and Fuel Inventory Costs (see page 3-5, item (5))

ANSWER 002

PG&E objects to this data request on the grounds that it is not timely, is premature, and not in the scope of this proceeding. Subject to and notwithstanding the foregoing objection, PG&E responds that, similar to the response to Question 1 on the historical costs, the information does not exist. The costs in the May 19, 2023, testimony reflects PG&E's most recent and complete set of cost information, presented in its September

2022 DOE CNC program. The estimated future costs are presented in the EUCG industry accounting format because the DOE required that the CNC applications be submitted using that methodology. PG&E's proposal in the June 9, 2023, testimony is that, in its future cost recovery application, the cost categories be presented as described therein. PG&E does not plan to use the EUCG accounting format for its future cost recovery application with the CPUC.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_004-Q003		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_004-Q003		
Request Date:	June 9, 2023	Requester DR No.:	004
Date Sent:	June 26, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

QUESTION 003

Relating to the showing of estimated future Diablo Canyon costs in Table 2 of PG&E's May 19, 2023, testimony, identify whether PG&E included forecasts for any of the proposed cost categories outlined in PG&E's June 9 testimony (pages 3-3 through 3-7). If the answer is yes, identify the amounts forecasted for each of these items:

a. Employee Retention Costs (see page 3-5, item (6)(a))
b. Decommissioning Planning Costs (see page 3-6, item (6)(b)).
c. Independent Peer Review Panel Costs (see page 3-6, item (6)(c))
d. Statewide volumetric payment (see page 3-6, item (6)(d))
e. PG&E service Territory Volumetric Payment (see page 3-6, item (6)(e))
f. Fixed Payment (see page 3-7, item (6)(f))
g. Liquidated Damages Fee (see page 3-7, item (6)(g))

ANSWER 003

PG&E interprets this question as meaning whether the cost categories identified in subparts (a) through (g), as described in the June 9 testimony, are included in Table 2 from the May 19 testimony. In addition, PG&E clarifies that the EUCG accounting format as required by the DOE CNC application does not "break down" into further detail as a GRC accounting format would; rather, the EUCG format contains the costs described in Attachments A and B of the May 19 testimony (which provide the EUCG definitions). With that interpretation, PG&E responds as follows:

a. No.
b. No.
c. No. PG&E clarifies that the Diablo Canyon Independent Safety Committee and Nuclear Safety Oversight Committee are included.
d. No.
e. No.
f. No.

g. No.

PACIFIC GAS AND ELECTRIC COMPANY
Diablo Canyon Power Plant Operations Extension OIR
Rulemaking 23-01-007
Data Response

PG&E Data Request No.:	TURN_004-Q004		
PG&E File Name:	DiabloCanyonPowerPlantOperationsExtensionOIR_DR_TURN_004-Q004		
Request Date:	June 9, 2023	Requester DR No.:	004
Date Sent:	June 26, 2023	Requesting Party:	The Utility Reform Network
PG&E Witness:	Brian Ketelsen	Requester:	Matthew Freedman

QUESTION 004

For the “Common Costs – Test Year” described on page 3-4, explain how the costs to be included in this category differ from the costs classified as “Administrative and General” in PG&E’s Results of Operations workpapers for “Electric Generation – Diablo Canyon Power Plant”. (See Ex. PG&E-10 (Results of Operations), Chapter 17 Workpapers, page WP 17-94 (A.21-06-021)).

ANSWER 004

PG&E interprets the referenced Ex. PG&E-10, Chapter 17 to reference its most recent GRC in case Application 21-06-021. With this interpretation, PG&E responds based on current best available cost forecasts included in its May 19, 2023, testimony and DOE CNC application. Included in PG&E’s May 19, 2023, testimony, PG&E describes those costs not included in the cost presentation. PG&E notes that these costs, which include property taxes, income taxes, Allowance for Funds Used During Construction, depreciation, and interest expense, are not captured in the GRC for Nuclear Operations Costs. PG&E cannot describe with certainty what will be included in its first extended operations cost recovery application at this stage and as indicated in the June 9 testimony, will make a showing demonstrating that any costs PG&E seeks to recover would be incremental and therefore eligible for recovery. The Commission has not yet resolved the structure or timeline of that proceeding or responded to PG&E’s proposal. PG&E asserts that its first cost forecast application, expected to be filed sometime in Q1-2024, will be the appropriate venue to assess Common Costs.

A&G costs support and benefit all of PG&E’s functional areas, including nuclear generation, using common cost allocation factors. These common costs are generally not directly chargeable to a specific area and are allocated to all functional areas. A&G expenses include costs such as wages and salaries, office supplies, and outside services of Corporate Services departments (such as Law, Finance, Human Resources and Regulatory Affairs), Information Technology, centralized services, and the A&G portions of certain Enterprise-wide and Customer programs. A&G costs also include bank and director fees, property and liability insurances, workers’ compensation payments, third-party claims, litigation, settlements and judgments, employee benefits and the costs of maintaining common and general plant. The common A&G costs allocated to nuclear generation are recovered through PG&E’s GRC through 2025. Also, through 2024 and 2025, nuclear liability and property insurances are included in the GRC for Units 1 and 2, respectively. Please refer to the 2023 GRC Exhibit (PG&E-10), Chapter 8, page 8-7. Equivalent common A&G costs will be included in a separately filed application for the period of extended operations. Also, PG&E clarifies that it will not double recover any costs that were recovered from its GRC or other proceedings in its future DCPP extended operations cost recovery request and application.

CPUC Docket: A.16-08-006
Exhibit Number: __________
Witness: William P. Marcus

PREPARED TESTIMONY OF THE UTILITY REFORM NETWORK

VOLUME 1 – TESTIMONY OF WILLIAM PEREA MARCUS

ADDRESSING THE PROPOSALS OF PACIFIC GAS AND ELECTRIC COMPANY RELATED TO THE COST OF CONTINUED OPERATION OF THE DIABLO CANYON POWER PLANT AND COST RECOVERY FOR LICENSE RENEWAL EXPENDITURES

(COMMON TESTIMONY OUTLINE SECTIONS I AND V)

JBS Energy, Inc.
311 D Street
West Sacramento
California, USA 95605
916.372.0534

January 27, 2017

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Attachment 1 Qualifications of William Perea Marcus

Attachment 2 Data Requests Relied Upon in Diablo Canyon Cost Analysis

Attachment 3 PG&E Material Relied Upon in License Renewal Cost Analysis

Attachment 4 Booking AFUDC on Suspended Projects

closures, this report identifies lower outage costs in the Base Case with spring closures than in the sensitivity case without them.

H. Administrative Overhead

In 2017, PG&E forecasts $587.554 million of utility-wide administrative overhead expenses (excluding insurance, workers' compensation, and pensions and benefits in FERC Accounts 924-926, and short-term incentives and vacation payoffs in Account 920). These costs are found in the remainder of FERC Account 920 as well as Accounts 921-923, 930, and 935. PG&E's rate case allocates most administrative expenses to functions (including Diablo Canyon) by labor. Approximately 15.86% of these total expenses are assigned to Diablo Canyon using this method, or $93.209 million.[13]

However, only a portion of these administrative overhead expenses are incremental and would be reduced in the long run if Diablo Canyon were closed. In the 1990s, several studies by PG&E and other intervenors filed in general rate cases from Test Years 1993, 1996, and 1999 showed that 10-11% of administrative and general expenses were in fact assigned to Diablo Canyon on a department specific basis at that time.[14] Given the expansion of other activities on the PG&E system since the late 1990s, we estimate department-specific expenses related to Diablo Canyon that would be avoidable with plant closure in the medium term as 8% of A&G expenses (roughly half of the expenses allocated to Diablo Canyon) for purposes of this study. That figure is $47.004 million in 2017 nominal dollars. We escalate administrative overhead expenses at inflation even though wages at PG&E rise slightly faster than general inflation.

I. Pensions and Benefits

PG&E's total pensions and benefits are $214 million in pension expense, not recovered through the rate case mechanism and $344 million of other benefits, including $224 million of healthcare costs and $120 million of other costs. The 15.86% labor share of these benefits is $36.97 million for pensions and $53.03 million for other benefits. In addition, costs of PG&E's Short-Term Incentive Program (STIP), workers' compensation, and vacation payoffs to departing employees are part of the employee-related cost of Diablo Canyon even though they are not part of Diablo Canyon's "business unit" costs.

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[13] PG&E 2017 TY GRC Workpapers to Exhibit PG&E-10, O&M Labor Tab.

[14] See for example, Prepared Testimony of Gayatri M. Schilberg for TURN in A. 94-12-055. Prepared Testimony of William B. Marcus for TURN in A. 97-12-020.

APPENDIX 3

CONFIDENTIAL ATTACHMENTS

REDACTED IN PUBLIC VERSION

EXCERPT FROM PG&E APPLICATION TO

US DEPARTMENT OF ENERGY CIVIL NUCLEAR CREDIT PROGRAM