Docket: A.96-08-043 Commissioner: Admin. Law Judge:



PUBLIC ADVOCATES OFFICE California Public Utilities Commission

MONITORING AND EVALUATION REPORT

November 1, 2019 through October 31, 2020

Pacific Gas and Electric Company's
Core Procurement Incentive Mechanism
Performance Results
(CPIM Year 27)

Application 96-08-043

San Francisco, California January 25, 2023

TABLE OF CONTENTS

1	SUMMARY AND RECOMMENDATIONS	
1.1	Introduction and Summary	1
1.2	Background	1
1.3	Procurement and Sales	3
1.4	Financial Hedging Activities	4
1.5	Natural Gas Storage	5
1.6	Core Intrastate Capacity	6
1.7	Core Interstate Capacity	6
1.8	Review of CPIM Performance	7
1.9	Conclusion	8
2	MONITORING AND EVALUATION AUDIT	
2.1	Cal Advocates' CPIM Reward Evaluation	9
2.2	Summary of Benchmark and Actual Costs	11
2.3	Review of Benchmark Commodity and Reservation Charges	12
2.4	Actual Natural Gas Costs	13
2.5	Natural Gas Storage Costs	15
2.6	Review of Purchase Gas Account (PGA)	16
2.7	Review of Core Pipeline Demand Charge Account (CPDCA)	17
2.8	Review of Miscellaneous Costs and Revenue	18
2.9	Examination of Hedging Costs	19
2.10	Review of Sales and Volume Transactions	20
2.11	Review of Volumetric Transport Costs	21
2.12	Review of Reservation Charges	22
2.13	Review of Benchmark Commodity Indices	23
2.14	Review of Fixed Storage and Transportation Costs	24
2.15	Utilization of Firm Interstate and Intrastate Pipeline Assets	25

Exhibits for CPIM Report

CHAPTER 1

SUMMARY AND RECOMMENDATIONS

1.1 Introduction and Summary

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) performed an audit and evaluation of the data and documents submitted by Pacific Gas and Electric Company (PG&E) for its Core Procurement Incentive Mechanism (CPIM) Annual Performance Reports for the period November 1, 2019, through October 31, 2020 (Year 27). Chapter 2 of this report presents the details and results of Cal Advocates' review. Cal Advocates' evaluation of PG&E's recorded natural gas costs confirms that PG&E's costs were below the benchmark for CPIM Year 27, which resulted in ratepayer savings.

PG&E submitted its CPIM Performance Report on June 3, 2022, which covered the period of November 1, 2019, through October 31, 2020. Cal Advocates' examination of PG&E's recorded costs for CPIM Year 27 shows that PG&E's actual gas costs were below the benchmark's lower tolerance band, which results in a reward of \$2,677,975 to PG&E's shareholders and a ratepayer benefit of \$15,172,842.

1.2 Background

The objective of the CPIM is to provide PG&E an incentive to reduce natural gas procurement costs. These costs include fixed transportation costs for Canadian and U.S. interstate, intrastate, and reservation charges. Other procurement costs include pipeline volumetric transportation costs, natural gas storage costs, and hedge costs. The incentive mechanism is used as a ratemaking tool and is designed to increase efficiency in administering regulatory controls.

The CPIM structure establishes procedures on performance evaluation and reporting for PG&E's gas procurement costs. It sets forth guidelines for standard operating conditions and for special circumstances. The allowed monthly benchmark

¹ See calculation on Cal Advocates CPIM Year 27 Report, Table 1-1.

dollars are totaled over the annual CPIM period and compared to actual costs for the year to determine PG&E's performance. A tolerance band is constructed around the benchmark and defines a range of costs considered reasonable. If PG&E's actual gas costs as measured against the CPIM benchmark are between the upper and lower limit specifications for the tolerance band, there is no shareholder reward or penalty for the CPIM period. If actual costs fall outside the tolerance band, there will be sharing of the gains or losses that occur outside the tolerance band between ratepayers and PG&E shareholders. In Chapter 2 of this report, Cal Advocates presents detailed results of the tolerance band calculation.

The CPIM program was originally approved by the California Public Utilities Commission (Commission) in Decision (D.) 97-08-055 as set forth in the PG&E/ORA² Post-1997 CPIM Agreement and PG&E's Supplemental Report describing the Post-1997 CPIM. This decision established the framework to recover core gas procurement and transportation costs through rates. Since then, numerous changes and extensions have been made to modify and refined the CPIM program structure and incentives.

In D.07-06-013, the Commission approved a settlement agreement between PG&E, Cal Advocates, The Utility Reform Network (TURN), and Aglet Consumer Alliance (Aglet). The settlement modified the CPIM to increase benefits to ratepayers in situations where natural gas purchases are less than the lower range of the tolerance band. The specific CPIM changes that resulted from the settlement agreement included:

- A 20/80 shareholder/ratepayer sharing of savings below the tolerance band, in contrast to the previous 25/75 shareholder/ratepayer sharing;
- The 2.5 Billion cubic feet (Bcf) of un-sequenced storage withdrawal adjustment was eliminated and is included proportionately to the storage withdrawal sequence;

² The Office of Ratepayer Advocates (ORA) was renamed the Public Advocates Office of the California Public Utilities Commission pursuant to Senate Bill No. 854, which was signed by the Governor on June 27, 2018 (Chapter 51, Statutes of 2018).

- A change in the sequencing steps for San Juan Basin and AECO for natural gas purchases;
- A savings of five-percent (5%) from full tariff rates on pipeline or storage contracts in order to offset CPIM gas costs;
- A change in the index used to calculate the benchmark for daily swing from the NGI daily Topock index to the NGI daily PG&E Citygate index;
- For storage acquired via the Incremental Storage Capacity Request for Offers process, the daily benchmark will be adjusted to accommodate the incremental storage injection and withdrawal requirements to improve savings in gas costs.

In D.10-01-023, the Commission adopted a settlement agreement between PG&E, Cal Advocates, and TURN which addressed the treatment of hedging costs for PG&E. The key provisions of the adopted settlement call for the following treatment of hedging transactions:

- 80% of net realized gains or losses and associated transaction costs will be included in the CPIM benchmark;
- 100% of the net hedging realized gains or losses and associated transaction costs will be included in the cost side of the CPIM calculation.
 Any gains will be subtracted, and losses will be added to CPIM costs;
- A modification to the CPIM sharing mechanism such that total shareholders earnings will be capped solely at 1.5 percent of annual gas commodity costs and a removal of the dollar cap of \$25 million on shareholder gains effective November 1, 2009.

1.3 Procurement and Sales

For the CPIM Year 27 period, PG&E's recorded actual commodity gas costs (excluding transportation, hedging, and storage costs) for core customers totaled

\$503,381,820, which was associated with a purchase volume of 259,625,599 MMBtus.³

On a daily basis, PG&E utilizes gas sales to help manage its assets and reduce gas costs. It purchases and sells gas supplies to comply with daily pipeline balancing requirements, responds to changes in core loads, and captures price arbitrage opportunities. For CPIM Year 27, PG&E reported total gas sales of (\$121,359,492) in revenue with an associated sales volume of (45,569,920) MMBtus.⁴

1.4 Financial Hedging Activities

Per D.07-06-013, all derivative gains, losses, and related transaction costs associated with PG&E's winter hedging plan were excluded from CPIM costs. These costs flowed directly to PG&E's retail customers. D.07-06-013 authorized PG&E, under the terms of the settlement, to place financial hedges on a rolling three-year basis via an Annual Plan filing. PG&E was required to file five Annual Plans beginning with the 2007/2008 winter season, that authorized a hedging plan for the current winter season and the subsequent two winter seasons. In addition, the settlement created a Core Hedging Advisory Group where Cal Advocates, Aglet, TURN and PG&E met quarterly to discuss PG&E's Annual Plan, and related hedging operations. By April 1 of each year, PG&E is required to report financial results of its Annual Plan including total funds spent on hedging instruments, total losses and gains for each category of hedging instrument, amount of monthly natural gas supplies hedged, and the impact of hedging results on customer rates.⁵

Pursuant to D.10-01-023, PG&E remains responsible for managing hedges proactively to ensure stability in customer rates. This includes implementing controls and selecting appropriate hedging instruments to mitigate derivative risks. PG&E is

³ See Cal Advocates CPIM Year 27, Exhibits 2-5 and 2-16.

⁴ Id., Exhibits 2-7 and 2-17.

⁵ Settlement Agreement – Regarding PG&E Long-Term Core Hedge Program (A.06-05-007), the Core Procurement Incentive Mechanism (CPIM), and Transportation Capacity held on Behalf of Core Customers, December 15, 2006.

also required to take proactive steps by adjusting its hedging positions in response to changing market conditions.

On January 25, 2010, the Commission approved D.10-01-023 and the associated Settlement Agreement, which requires eighty percent (80%) of winter hedging gains and losses and related transaction costs to be included in the CPIM benchmark. The Settlement Agreement also requires one hundred percent (100%) of winter hedging gains and losses and related transaction costs be included in the CPIM actual commodity costs. These CPIM changes was incorporated starting in CPIM Year 18.

For the current CPIM Year 27, the total costs of winter hedges included in the CPIM were \$6,658,460 which was comprised of \$7,119,114 in option premiums, (\$480,500) in option and swap settlements, and \$19,846 in commissions and fees.⁶

1.5 Natural Gas Storage

Under the CPIM, PG&E would use a daily injection and withdrawal schedule for managing core customer demands and balancing purposes. For CPIM Year 27, beginning inventory including incremental storage was reported at 28,626,019 MMBtus, and ending inventory was 15,000,205 MMBtus.⁷

Pursuant to D.06-07-010 and D.07-06-013, PG&E is authorized to acquire incremental storage to meet a 1-day-in-10-year peak-planning standard for its core customers. The incremental storage costs are included in the benchmark and inventory schedules are adjusted by the number of daily injections and withdrawals on a daily basis. This enables PG&E to track costs for the benchmark and adjust the amount of daily actual incremental natural gas injection and withdrawals.

Pursuant to D.06-07-010, and modified by D.08-07-009, PG&E acquired additional incremental storage capacity for future winter season periods for 2011 through 2015. This capacity became effective in Year 18 for the purpose of injection activity.

⁶ See Cal Advocates CPIM Year 27, Exhibits 2-10.

⁷ See calculation on Cal Advocates CPIM Year 27 Report, Table 2-5.

In a Memorandum of Understanding (MOU) between PG&E and Cal Advocates on October 19, 2009, the parties agreed to a change of firm storage injection and withdrawal requirements used to calculate the CPIM benchmark. These changes provided an updated storage profile beginning in Year 17 and are adjusted for allocations to Core Transport Agents (CTAs) as detailed in Tariff G-CT. This MOU remains in effect until both parties agree to make changes.⁸

1.6 Core Intrastate Capacity

Pursuant to D.04-12-050, the Commission allowed PG&E's Core Procurement Department to recover costs for firm reservation of intrastate backbone pipeline capacity. Effective July 1, 2016, to December 31, 2018, PG&E holds Redwood intrastate capacity providing approximately 605 MDth/d and Baja intrastate capacity providing 182 MDth/d with an additional seasonal capacity of 157 MDth/d during November 1 to March 31. The PG&E's 2019 GT&S Rate Case was not concluded prior the end of 2018, therefor the PG&E CGT Redwood Path and Baja Path extended until March 31, 2020.9 Upon approval in D.19-09-025, PG&E modified Redwood Path and Baja Path effective April, 21, 2020, which eliminated Baja Annual 182 MDth/d and created Redwood Path with an allocation of 100 MDth/d during Nov-Mar, 250 MDth/d during Nov-Jan, Baja Path with 300 MDth/d during Dec-Feb.¹⁰

1.7 Core Interstate Capacity

PG&E holds interstate capacity for the core on NOVA Gas Transmission Ltd. (NGTL/NOVA), Foothills Pipelines, Ltd. (Foothills), Gas Transmission Northwest (GTN), Transwestern Pipeline Company (TW), and Ruby Pipeline, L.L.C. (Ruby).

⁸ CPIM - ORA and PG&E Memorandum of Understanding, dated October 19, 2009.

⁹ See PG&E Annual Performance Report, Year 27, page 17-20.

¹⁰ See PG&E Annual Performance Report, Year 27, page 20-21.

For CPIM Year 27, core interstate capacity was reported as approximately 370 MDth/d for NOVA, 366 MDth/d for Foothills, 360 MDth/d for GTN, 162 MDth/d for TW, and 250 MDth/d for Ruby.¹¹

Pursuant to Advice Letter 3747-G-A, PG&E extended two contracts with Foothills for 284,810 Dth/d and 81,384 Dth/d, and a contract with NGTL for 287,745 Dth/d and the GTN contract for 279,968 Dth/d through October 31, 2020.¹²

Pursuant to Advice Letter 4178-G, PG&E signed a winter season contract with El Paso Pipeline for 162 MDth/d during November 1, 2020, through March 31, 2023. ¹³

1.8 Review of CPIM Performance

Table 1-1 below compares benchmark gas costs to actual costs of natural gas (including commodity, transportation, hedges, reservation, and storage costs) in total dollars.

Table 1-1									
Pacific Gas and Electric Company									
CPIM Year 2	27								
Gas Costs Compa	arison	1							
November 1, 2019 - Octo	ober 3	31, 2020							
Benchmark Gas Costs	\$	728,631,128							
Actual Gas Costs	\$	710,780,311							
Cal Advocates Audited Total Savings			\$	17,850,817					
PG&E Reported Savings				17,850,824					
Variance				(7)					
Rounding				7					
Total Variance			\$	-					
Savings and Rewards									
Ratepayer Savings		\$	15,172,842						
Shareholder Rewards			\$	2,677,975					
CPIM Savings			\$	17,850,817					

Source: See Cal Advocates CPIM Report, Exhibits 2-1.

For the CPIM Year 27, Cal Advocates found no material variance for PG&E reported savings and Cal Advocates audited total savings. For this period, the total

¹¹ See PG&E Annual Performance Report, Year 27, page 18.

¹² PG&E Annual Performance Report, Year 27, page 19.

¹³ ld.

saving for the period is \$ 17,850,817. The ratepayer benefit associated with the total savings amounts to \$15,172,842 and PG&E's shareholder savings amount to \$2,677,975.

1.9 Conclusion: CPIM Year 27

Based on the foregoing, Cal Advocates recommends a shareholder reward in the amount of \$2,677,975 for CPIM Year 27 to be recovered through PG&E's Purchased Gas Account. Cal Advocates will continue to monitor and evaluate the CPIM and collaborate with PG&E and other parties to identify any modifications needed to enhance the CPIM's effectiveness.

1.10 Addendum

During the later months of 2022, commodity gas prices for purchases at various locations for delivery into California experienced dramatic price increases. In particular, the natural gas market prices for those locations spiked significantly in late December for gas purchases in January 2023. At the publishing of this report, the factors that may have caused the dramatic price increases are not clear. However, given this occurrence in the California gas market, Cal Advocates requests that in PG&E's next CPIM filing, PG&E provide its assessment of the effectiveness of the current CPIM. In particular, Cal Advocates requests that PG&E address whether the CPIM is operating as intended especially in those months and time frames when there is a significant spike in gas prices.

CHAPTER 2 MONITORING AND EVALUATION AUDIT YEAR 27

2.1 Cal Advocates' CPIM Reward Evaluation

PG&E filed CPIM Performance Report, Year 27 Application (A.96-08-043), which reports on natural gas procurement results for the period from November 1, 2019 through October 31, 2020. Cal Advocates conducted a review and evaluation of PG&E's accompanying performance report. The results from this evaluation include work papers from Cal Advocates' compilations, which are incorporated as exhibits in Appendix A. This report is in compliance with the Gas Accord Decision, (D.)97-08-055, dated August 1, 1997, which approved the CPIM method for PG&E's recovery of core gas procurement and transportation costs. ¹⁴ On August 22, 2002, the Commission issued D.02-08-070, the Gas Accord II Decision, extending the initial Gas Accord market structure including the CPIM, through 2003. On December 18, 2003, the Commission issued D.03-12-061, extending the CPIM through Year 2005, or until a revised CPIM is adopted by the Commission. Pursuant to D.07-06-013, the Commission adopted a Settlement Agreement that address long-term hedging for PG&E's core customers, as well as CPIM related modifications.

The CPIM summarizes gas costs, tolerance band limits, and performance results that compare actual costs to the benchmark. The CPIM benchmark consists of four components: a) variable costs which include commodity costs, Canadian and U.S. interstate, and California intrastate pipeline fuel and volumetric capacity costs; b) fixed transportation costs which include Canadian, U.S. interstate, and California intrastate reservation costs; c) storage costs for fixed reservation charges and variable costs; and d) Hedging costs which included 80% of net realized gains or losses and

¹⁴ In D.97-08-055, the Commission approved a CPIM mechanism for core gas costs incurred after December 31, 1997. In this decision, the Commission ordered PG&E to file quarterly and annual reports on core procurement operations starting after completion of one year of Gas Accord operations.

associated transaction costs of winter hedges. The total combined cost of these four components serves as the benchmark to compare to the actual costs.

The actual commodity costs of gas are measured on an annual basis against the benchmark and the calculated tolerance band. The benchmark commodity cost is based on the prevailing published natural gas price indices for gas delivered from the gas production areas, borders, and PG&E's Citygate.

PG&E's CPIM Year 27 performance as set forth in Table 2-1 shows total benchmark costs of \$728,631,128 and PG&E's total actual costs of \$710,780,311. The difference between the total benchmark costs and PG&E's total actual costs results in a total of \$17,850,817 in natural gas procurement savings. The ratepayer benefits total \$15,172,842 and the shareholder reward is \$2,677,975. The calculation of the shared savings between PG&E's customers and shareholders is shown in Table 2-1.

TABLE 2-1 Pacific Gas & Electric Company Ratepayer Savings and Shareholder Award Calculation CPIM 27

November 1, 2019 Through October 31, 2020

CPIM Reward Calculation	_	
Total Benchmark Costs	\$	728,631,128
Total Actual Costs	\$	710,780,311
Under/(Over)	\$	17,850,817
Upper Tolerance Band (Benchmark + 2% of Commodity Cost)	\$	737,553,007
Low er Tolerance Band (Benchmark - 1% of Commodity Cost)	\$	724,170,188
Add Amount of Lower Tolerance Band (Not Subject to Share: 0%-1%)	\$	4,460,940
Low er Tolerance Band Less Actual Commodity Cost (Subject to Share)	\$	13,389,877
Ratepayer Shared Savings (80%)	\$	10,711,902
Shareholder Shared Savings (20%)	\$	2,677,975
	\$	13,389,877
Cap On Shareholder Reward=1.5% of commodity costs:		
Total Commodity Costs	\$	428,354,530
CPIM Year 27 Shareholder Award After 1.5% Cap	\$	6,425,318
Total Shareholders' share:	\$	2,677,975
Total Ratepayers' share:	\$	15,172,842
Total Savings:	\$	17,850,817

Source: See Cal Advocates CPIM Report, Exhibits 2-1.

2.2 Summary of Benchmark and Actual Costs

The overall annual results of the actual commodity costs compared to the benchmark commodity costs of gas operation are summarized in Table 2-2. Cal Advocates examined and reconciled all gas commodity costs, hedging costs, and transportation reservation charges that were reported in the current CPIM period. The natural gas sale and miscellaneous costs and revenues are included in the actual costs as costs or credits depending on the result of natural gas operation. The following sections in this chapter provide a detailed review and breakdown of these related costs.

Table 2-2
Pacific Gas & Electric Company
Summary of Benchmark and Actual Costs
CPIM 27

November 1, 2019 Through October 31, 2020

	Actual Costs	Benchmark Costs	Under/(Over)
Purchased Gas Costs	\$ 503,381,820	\$ 440,620,794	\$ (62,761,026)
Volumetric Transportation Costs	\$ 39,472,175	\$ -	\$ (39,472,175)
Natural Gas Sales	\$ (121,359,492)	\$ -	\$ 121,359,492
Other Costs and Revenues	\$ 55,167	\$ -	\$ (55,167)
Hedge Cost	\$ 6,658,460	\$ 5,326,767	\$ (1,331,693)
Reservation Charges	\$ 203,090,887	\$ 203,090,887	\$ -
Custom and Border Protection Fee	\$ 146,400	\$ 146,400	\$ -
Discount	\$ (111,386)	\$ -	\$ 111,386
Storage Costs	\$ 79,446,280	\$ 79,446,280	\$ -
Total	\$ 710,780,311	\$ 845,298,026	\$ 17,850,817

Source: See Cal Advocates CPIM Report, Exhibits 2-2.

2.3 Review of Benchmark Commodity and Reservation (Demand) Charges

The total benchmark commodity costs consist of three main components, benchmark gas costs, other costs, and benchmark reservation costs. Table 2-3 shows a breakdown for total benchmark commodity costs. Cal Advocates confirmed the total benchmark gas costs of \$440,620,794, the other costs of \$5,473,167, and total benchmark reservation charges of \$282,537,167.

TABLE 2-3
Benchmark Commodity Costs and Reservation Charges
CPIM Year 27

November 1, 2019 Through October 31, 2020

Markat

Ruby Rockies \$	135,801,759 184,836,090 45,900,164	*Reference
	184,836,090	
AECO \$	45 000 164	
San Juan \$	43,300,104	
Kingsgate \$	751,364	
Topock \$	23,427,696	
PG&E Citygate \$	49,461,628	
Redwood \$	442,093	
Total Benchmark Gas Costs: \$	440,620,794	2-14
Other Costs		
80% of Winter Hedging Cost \$	5,326,767	2-15
MPF	146,400	2-19
Total Other Costs \$	5,473,167	
Benchmark Reservation Charges:		
Foothills Pipelines Ltd \$	7,325,072	2-8
Nova Gas Transmission Ltd \$	15,135,165	2-8
Gas Transmission Northwest Corp \$	25,932,496	2-8
Ruby Pipeline \$	49,786,754	2-8
Transwestern Pipeline Company \$	6,443,633	2-8
California Gas Transmission \$	98,467,767	2-8
Storage \$	79,446,280	2-13
Total Benchmark Reservation Charges: \$	282,537,167	
Total Benchmark Commodity Costs: \$	728,631,128	

^{*}Source: See Cal Advocates CPIM Report, Exhibits.

2.4 Actual Natural Gas Costs

A review of actual costs for commodity purchases and reservation charges reported by PG&E is summarized in Table 2-4. On a monthly basis, PG&E will sell some of its unused assets. The net sale is treated as a credit to the procurement costs. In addition to the calculation of actual commodity costs of CPIM, one hundred percent of winter hedging realized gains or losses and associated transaction costs are included in the actual costs. Reservation charges include intrastate and interstate charges for California Gas Transmission, Ruby Pipeline LLC, Foothills Pipe Line Ltd.,

Nova Gas Transmission, Ltd., Gas Transmission Northwest Corporation, and Transwestern Pipeline Company.¹⁵

PG&E's net total actual commodity costs are \$710,780,311, which include interstate and intrastate purchased gas costs of \$421,494,503, other costs of \$6,860,027, and reservation charges of \$282,425,781.

TABLE 2-4
Summary of Actual Commodity Costs & Reservation Charges
CPIM Year 27
November 1, 2019 Through October 31, 2020

Actual Purchased Gas Costs - by I	Pipeline:	Actual Costs	*Reference
CGT - Citygate		\$ 51,384,250	2-5
CGT		\$ 52,705,459	2-5
El Paso		\$ 9,403	2-5
GTN		\$ 18,698,093	2-5
Nova		\$ 178,304,344	2-5
Ruby		\$ 114,467,692	2-5
TW		\$ 87,653,159	2-5
Kern		\$ 159,420	2-5
Volumetric Transportation Cost		\$ 39,472,175	2-6
Gas Sale		\$ (121,359,492)	2-7
	Total Purchased Gas Costs:	\$ 421,494,503	
Other Costs:			
100% Winter Hedging Cost		\$ 6,658,460	2-10
MPF		\$ 146,400	2-19
Miscellaneous Costs & Revenues		\$ 55,167	2-9
	Total Other Costs:	\$ 6,860,027	
Actual Reservation Charges:			
Foothills Pipelines Ltd		\$ 7,325,072	2-8
Nova Gas Transmission Ltd		\$ 15,135,165	2-8
Gas Transmission Northwest Corp		\$ 25,932,496	2-8
Ruby Pipeline		\$ 49,786,754	2-8
Transwestern Pipeline Company		\$ 6,443,633	2-8
California Gas Transmission		\$ 98,467,767	2-8
Storage Costs		\$ 79,446,280	2-13
Discount Demand Charges		\$ (111,386)	2-11
Capacity Release Revenue		\$ 	2-12
	Total Reservation Charges:	\$ 282,425,781	
	Net Actual Commodity Costs:	\$ 710,780,311	

¹⁵ PG&E Annual Performance Report, CPIM Year 27, page 11.

2.5 Natural Gas Storage Costs

In accordance with D.06-07-010, PG&E uses a monthly distribution of winter storage withdrawals and summer storage injections in the calculation of the monthly benchmark purchase volumes. PG&E reports on its managed storage so that impacts to CPIM metrics can be attained while ensuring adequate capacity is available for reliability. PG&E also uses a schedule to establish daily benchmark allocations of injections and withdrawals and to ensure distributions are allocated evenly throughout the period. When it becomes necessary to balance portfolio supplies with core loads, PG&E will generally make exceptions from its planned schedules to meet interstate and intrastate pipeline tolerances, balancing rules, and most importantly, conservation of gas for storage and peak requirements.¹⁶

In Table 2-5, a summary of storage inventory shows the status of physical inventories (measured in MMBtus) for beginning and ending balances for core customers. PG&E reported beginning storage inventory levels as of November 1, 2019, at 28,626,019 MMBtus and ending inventory as of October 31, 2020 at 15,000,205 MMBtus.

TABLE 2-5
Pacific Gas and Electric Company
Summary of Storage Inventory Injections and Withdrawals
CPIM Year 27
November 1, 2019 Through October 31, 2020

Gas Storage Providers	Beginning Inventory 11/01/19 (MMBtus)	Ending Inventory 10/31/20 (MMBtus)
Firm Storage CGT	28,476,019	13,312,205
Incremental Storage	150,000	1,688,000
Total Storage Inventory	28,626,019	15,000,205

Source: See Cal Advocates CPIM Report, Exhibits 2-20.

¹⁶ See PG&E Annual Performance Report, Year 27, p.13-16.

2.6 Review of Purchase Gas Account (PGA)

PG&E submitted its reconciliation of its regulatory balancing account, the Purchase Gas Account (PGA). For the reporting period, PG&E's accounting entries represent amounts expected to be received from, or refunded to, PG&E's customers through authorized adjustments within a twelve-month period. The PGA shows the tracking of gas related costs and revenues for recovery. The under-or-over collected position of this account is dependent upon the seasonality and volatility in gas volumes. Table 2-6 below illustrates net commodity costs, which shows immaterial timing difference with supporting documentation presented in PG&E's Performance Report, for actual natural gas purchases.¹⁷

As part of the PGA audit, Cal Advocates selected three months in the CPIM period, December 2019, January 2020, and April 2020, to review PG&E's supporting records. PG&E provided copies of supporting documents and purchase invoices for the purpose of the verification. Cal Advocates traced the costs of these purchase invoices to the monthly statement and then to the annual report and determined that the selected purchase invoices reconciled with recorded amounts in the annual report.

¹⁷ See PG&E July 19, 2022 Response to Cal Advocates Date Request A.96-08-04_CPIM Year 27_003_Q006 issued July 5, 2022.

TABLE 2-6 Pacific Gas and Electric Company Purchase Gas Account Review CPIM Year 27 November 1, 2019 through October 31, 2020

	Commodity		Volumetric		Subtract	Add	Total
CPIM Purchase Costs	Purchases	Transportation		True-up		True-up	CPIM
CPIM Costs:							
Purchases and Sales:	\$ 382,030,014	\$	39,350,141				\$ 421,380,155
Cochrane Extraction Rev	\$ (1,826,931)						\$ (1,826,931)
SubTotal	\$ 380,203,083	\$	39,350,141	\$	-	\$ -	\$ 419,553,224
Misc. Revenues and Expenses	\$ 371,448						\$ 371,448
Total	\$ 380,574,531	\$	39,350,141	\$	-	\$ -	\$ 419,924,672
SAP Journal Entries:							
SAP Total	\$ 416,101,170	\$	38,842,008	\$	(82,225,458)	\$ 47,199,810	\$ 419,917,530
Other Adjustments	\$ 7,129	\$	-				\$ 7,129
Total PGA	\$ 416,108,299	\$	38,842,008	\$	(82,225,458)	\$ 47,199,810	\$ 419,924,659
Timing Diffrence	\$ (35,533,768)	\$	508,133	\$	82,225,458	\$ (47,199,810)	\$ 13

2.7 Review of Core Pipeline Demand Charge Account (CPDCA)

As part of the CPIM Year 27 filing, PG&E submitted its reconciliation for regulatory balancing account Core Pipeline Demand Charge Account (CPDCA). This account is used to record costs associated with backbone transmission, interstate capacity, and Canadian capacity for core procurement. Cal Advocates reviewed PG&E's documentation, which shows total charges by pipeline for the period to be \$282,548,836.¹⁸

Cal Advocates' audit showed the CPIM demand costs were \$282,548,836 which included demand charges, discount demand charges, capacity release revenue and release revenue charges. When Cal Advocates compared the reported CPIM demand costs to the SAP journal entries, no material difference is found.

17

¹⁸ See PG&E July 19, 2022 Response to Cal Advocates Date Request A.96-08-04_CPIM Year 27_003_Q007 issued July 5, 2022.

TABLE 2-7
Pacific Gas and Electric Company
CPDCA and CFSA Accounts Review
CPIM Year 27

Maria de la casa de la	0040	41	0-1-1	0.4	0000
November 1	. 2019	tnrouan	October	31.	. 2020

	Demand	Subtract	Add	Total
CPIM Demand Costs	Charges	True-up	True-up	CPIM
Foothills Pipe Lines Ltd	\$ 7,325,067			\$ 7,325,067
California Gas Transmission	\$ 98,463,412			\$ 98,463,412
Firm Storage Costs	\$ 59,888,687			\$ 59,888,687
El Pas Natural Gas	\$ -			\$ -
RubyPipeline	\$ 49,825,300			\$ 49,825,300
Third Party Gas Storage	\$ 19,646,465			\$ 19,646,465
NOVA Gas Transmission	\$ 15,135,165			\$ 15,135,165
Gas Transmission	\$ 25,901,654			\$ 25,901,654
Transwestern Pipeline Company	\$ 6,363,086			\$ 6,363,086
Total Demand Charges:	\$ 282,548,836	\$ -	\$ -	\$ 282,548,836
SAP Journal Entries				
Total SAP Entries	\$ 280,901,683	\$ (26,901,531)	\$ 28,661,361	\$ 282,661,513
Total Adjustments	\$ (112,677)	\$ 	\$ -	\$ (112,677)
Total CPDCA:	\$ 280,789,006	\$ (26,901,531)	\$ 28,661,361	\$ 282,548,836
Timing Difference:	\$ 1,759,830	\$ 26,901,531	\$ (28,661,361)	\$ (0)

2.8 Review of Miscellaneous Costs and Revenues

Table 2-8 shows a summary of miscellaneous costs and revenues from PG&E's Annual Performance Report for the period. The revenues in this section also offset reported procurement costs and assist management in managing net costs that impact CPIM performance. Results show total annual miscellaneous costs and revenues at 55,167. This amount consists of Cochrane extraction revenue of (\$1,826,931), non-winter hedge cost and revenues of \$1,474,737, and miscellaneous costs and revenues of \$407,361.

TABLE 2-8
Pacific Gas and Electric Company
Miscellaneous Costs and Revenues
CPIM Year 27
November 1, 2019 through October 31, 2020

Month	Cochrane Extraction Revenue	Н	Non-Winter edge Cost and Revenues	IV	liscellaneous Costs and Revenues	Total
Nov-19	\$ (190,417)	\$	396,983	\$	22,320	\$ 228,886
Dec-19	\$ (202,098)	\$	(24,800)	\$	23,311	\$ (203,587)
Jan-20	\$ (181,649)	\$	(249,322)	\$	28,410	\$ (402,561)
Feb-20	\$ (151,662)	\$	115,891	\$	44,493	\$ 8,722
Mar-20	\$ (62,045)	\$	-	\$	60,180	\$ (1,865)
Apr-20	\$ (69,015)	\$	(93,000)	\$	21,710	\$ (140,305)
May-20	\$ (124,159)	\$	(98,813)	\$	33,085	\$ (189,887)
Jun-20	\$ (195,692)	\$	(139,763)	\$	26,978	\$ (308,477)
Jul-20	\$ (172,100)	\$	(237,925)	\$	28,723	\$ (381,302)
Aug-20	\$ (158,644)	\$	119,621	\$	27,337	\$ (11,686)
Sep-20	\$ (156,239)	\$	877,230	\$	33,529	\$ 754,520
Oct-20	\$ (163,211)	\$	808,635	\$	57,285	\$ 702,709
Total	\$ (1,826,931)	\$	1,474,737	\$	407,361	\$ 55,167

Source: See Cal Advocates CPIM Report, Exhibits 2-9.

2.9 Examination of Financial Derivatives

Pursuant to D.07-06-013, the Commission authorized PG&E's Annual Core Hedge Implementation Plan for 2008 for long term hedging for purchases of call options and swaps for a three-year period. This decision provided guidelines for the long-term core hedging program as well as reporting requirements.

In D.10-01-023, the Commission approved a policy incorporating winter hedging transactions into the CPIM. The winter hedging transactions executed on or after November 1, 2009, would be included in PG&E's CPIM calculation beginning on or after November 1, 2010. CPIM Year 18 was the first year to include the winter hedging costs and this change was adopted for future CPIM calculations. The financial results for the winter 2019-2020 are summarized in Table 2-9.

PG&E reported \$6,658,460 in CPIM Year 27 for actual winter hedging costs. The total option premiums costs are \$7,119,114, Option and Swap Settlement of (\$480,500), and commission and fees are \$19,846.

Table 2-9
Pacific Gas and Electric Company
Winter Hedge Costs
CPIM Year 27
November 1, 2019 - October 31, 2020

	Option Premiums	0	Option and Swap Settlements		Commissions and Fees	Winter Hedge Cost Total		
Nov-19	\$ -	\$	-	\$	-	\$	-	
Dec-19	\$ 2,153,028	\$	(455,700)	\$	6,745	\$	1,704,073	
Jan-20	\$ 2,530,593	\$	(24,800)	\$	6,785	\$	2,512,578	
Feb-20	\$ 2,435,493	\$	-	\$	6,316	\$	2,441,809	
Mar-20	\$ -	\$	-	\$	-	\$	-	
Apr-20	\$ -	\$	-	\$	-	\$	-	
May-20	\$ -	\$	-	\$	-	\$	-	
Jun-20	\$ -	\$	-	\$	-	\$	-	
Jul-20	\$ -	\$	-	\$	-	\$	-	
Aug-20	\$ -	\$	-	\$	-	\$	-	
Sep-20	\$ -	\$	-	\$	-	\$	-	
Oct-20	\$ -	\$	-	\$	-	\$	-	
Total	\$ 7,119,114	\$	(480,500)	\$	19,846	\$	6,658,460	

Source: See Cal Advocates CPIM Report, Exhibits 2-10.

2.10 Review of Sales and Volume Transactions

Table 2-10 shows PG&E's total sales of (\$121,359,492), and total reported volume of (45,569,920) MMBtus. A breakdown by pipeline shows sales for CGT Citygate of (\$89,171,037), CGT-All of (\$254,747), GTN of (\$2,128,729) Kern River of (\$5,471,289), Nova of (\$4,083,031), Ruby of (\$1,932,788), TW of (\$151,393), and Williams Field Service (WFS) of (\$18,166,478).

The same period shows sales volumes for CGT Citygate of (30,067,915) MMBtus, CGT-All of (141,492) MMBtus, GTN of (824,800) MMBtus, Kern River of (2,769,463) MMBtus, Nova of (2,336,842) MMBtus, Ruby of (1,111,650) MMBtus, TW of (91,199) MMBtus, and WFS of (8,226,559) MMBtus.

Table 2-10 Pacific Gas and Electric Company Gas Sales and Volumes CPIM Year 27 November 1, 2019 through October 31, 2020

Sale by Pipeline:	Volume (MMBtus)	Dollars
CGT Citygate	(30,067,915)	(89,171,037)
CGT - All	(141,492)	(254,747)
GTN	(824,800)	(2,128,729)
Kern	(2,769,463)	(5,471,289)
Nova	(2,336,842)	(4,083,031)
Ruby	(1,111,650)	(1,932,788)
TW	(91,199)	(151,393)
WFS	(8,226,559)	(18,166,478)
Total:	(45,569,920)	(121,359,492)
*Reference	2-17	2-7

^{*}Source: See Cal Advocates CPIM Report, Exhibits.

2.11 Review of Volumetric Transport Costs

Table 2-11 provides a summary of PG&E's reported volumetric transportation costs by pipelines. It shows that trends in transport activity are consistent with purchase and sales transactions.

The total volumetric transport costs were \$39,472,175. In addition, costs were broken down by pipeline: PG&E CGT \$35,712,566, GTN \$1,138,994, Ruby Pipeline \$2,123,095, Transwestern \$317,515, WFS \$95,488, and ISP \$84,517. These costs are included in the CPIM and are part of the reconciliation of the PGA balancing account.

TABLE 2-11 Pacific Gas and Electric Company Commodity Volumetric Transport Costs CPIM Year 27 November 1, 2019 through October 31, 2020

Pipeline	Costs	*Reference
PG&E CGT	\$ 35,712,566	
GTN	\$ 1,138,994	
RubyPipeline	\$ 2,123,095	
Transwestern	\$ 317,515	
WFS	\$ 95,488	
ISP	\$ 84,517	
Total Volumetric Transport Costs:	\$ 39,472,175	2-6

^{*}Source: See Cal Advocates CPIM Report, Exhibits.

2.12 Review of Reservation Charges

To identify any variances, Cal Advocates performed a reconciliation of the benchmark reservation charges to the actual reservation charges reported in PG&E's Annual Performance Report for the subject period. Table 2-12 provides a summary of adjustments that were offset against the benchmark. The results show no discrepancies. The reconciliation account for actual reservation charges was \$282,425,781 which included total actual demand charges of \$203,090,887, adjustments of demand charges discount of (\$111,386), and storage costs of \$79,446,280.

TABLE 2-12

Pacific Gas and Electric Company Reconciliation of Reservation Charges CPIM Year 27

November 1, 2019 through October 31, 2020

Actual Damen d Observa he Bineline Contents		Dei	Benchmark mand Charges:	Deference
Actual Demand Charges by Pipeline System: Canadian		\$	203,090,887	Reference
Foothills Pipelines Ltd. 7,325,	072 =	_	200,000,000	
Nova Gas Transmission Ltd. 15,135,				
Canadian Subtotal \$ 22,460,				
Interstate				
Gas Transmission Northwest Corporation 25,932,	496			
El Paso Natural Gas Company	_			
Ruby Pipeline 49,786,	754			
Transwestern Pipeline Company 6,443,	633			
Interstate Subtotal \$ 82,162,	883			
Intrastate				
California Gas Transmission 98,467,	767			
Intrastate Subtotal \$ 98,467,	767			
Total Actual Demand Charges: \$ 203,090,	887	\$	203,090,887	2-8
Discount Demand Charges:				
El Paso Natural Gas Company	-			
· · · · · · · · · · · · · · · · · · ·	841)			
•	545)			
Demand Charge Discount Subtotal: \$ (111,	386)	\$	-	2-11
Capacity Release Revenue:		_		
Total Capacity Release Revenue: \$	-	\$	-	2-12
Otamana Ocata				
Storage Cost:	000			
California Gas Transmission Firm Storage 59,884,				
Other Storage Costs 19,561,		·	70.440.000	0.40
Storage Cost Subtotal: \$ 79,446,	∠8U	\$	79,446,280	2-13
 		_		
Reconciliation of Reservation Charges: \$ 282,425,	781	\$	282,537,167	

2.13 Review of Benchmark Commodity Indices

The benchmark gas price indices are published by various natural gas publications. Each index is then adjusted with fuel costs from supplying regions to PG&E's Citygate and the adjusted gas indices are used to calculate the monthly commodity costs benchmark.

The Canadian benchmark commodity indices are established using the exchange rates in effect when the indices are issued prior to the availability of closing

currency exchange rates. However, the final indices, which determine the actual gas supply prices, reflect closing exchange rates.

For the reporting period, PG&E's gas operations applied a pipeline sequencing methodology for purposes of purchasing gas at the lowest cost. PG&E has the discretion to change the sequence to select a different pipeline at any time to meet reliability requirements.

Cal Advocates reviewed and verified gas price in each publication that PG&E used to compute the benchmark. Cal Advocates has not found any discrepancies.

2.14 Examination of Benchmark Storage Charges and Transportation Costs

Cal Advocates reviewed PG&E's reported benchmark reservation (demand) and fixed storage charges and identified any changes in activity in the report. The total transportation and storage costs are \$282,537,167, which consisted of Canadian pipeline demand charges of \$22,460,237, U.S. interstate pipeline reservation costs of \$82,162,883, California intrastate pipeline costs of \$98,467,767, and storage costs of \$79,446,280. Table 2-14 provides a summary of these costs.

TABLE 2-14 Pacifc Gas and Electric Company Summary of Fixed Transport and Storage Costs CPIM Year 27

November 1, 2019 through October 31, 2020

Benchmark Demand Charges				
Canadian				Reference
Foothills Pipelines Ltd.			7,325,072	
Nova Gas Transmission Ltd.			15,135,165	_
	Canadian Subtotal	\$	22,460,237	-
Interstate				
Gas Transmission Northwest Corporation	١		25,932,496	
El Paso Natural Gas Company			-	
Ruby Pipeline			49,786,754	
Transwestern Pipeline Company			6,443,633	
	Interstate Subtotal		82,162,883	
Intrastate				
California Gas Transmission	,		98,467,767	-
	Intrastate Subtotal	\$	98,467,767	•
Т	otal Demand Charges	\$	203,090,887	2-8
CA Intrastate Storage Costs:				
California Gas Transmission Firm Storag	е		59,884,332	
Other Storage Costs	,		19,561,948	•
	Total Storage Costs	\$	79,446,280	2-13
Total Transportation & Storage Costs:		\$	282,537,167	
Total Transportation & Storage Costs.		Ψ	202,001,101	i

2.15 Utilization of Firm Interstate and Intrastate Pipeline Assets

PG&E has short and long-term contracts to meet core gas demand for purchases of natural gas resources transported from Canadian, U.S. interstate and California intrastate pipeline systems. During CPIM Year 27, PG&E transported natural gas resources using firm transportation contracts. PG&E estimates its utilization proportionally based on capacity available to transport supplies and/or releases to other parties. The summary in Table 2-15 below shows PG&E's estimated utilization for the period and notes changes in contract activity from prior years.¹⁹

Pursuant to D.04-09-022, PG&E is authorized to recover the costs associated with its Canadian and U.S. interstate capacity, allocate firm intrastate capacity, and recover associated costs. Pursuant to D.07-07-002, PG&E can also allocate firm

25

¹⁹ PG&E Annual Performance Report, CPIM Year 27, page 21-22.

interstate capacity and recover associated costs. In CPIM Year 19, PG&E added the Ruby pipeline to PG&E's core supply portfolio effective November 1, 2011. The Ruby pipeline provides contracted quantities of 250,000 Dth/d and the contract expires on October 31, 2026.

Table 2-15 Pacific Gas and Electric Company Core Gas Supply - Utilization of Interstate, Intrastate and Canadian Pipeline Assets CPIM Year 27 November 1, 2019 through October 31, 2020

	-	Contract	
	Quantity	Expiration	Utilization
Pipeline Capacity:	(Dth/d)	Date	Rate
TransCanada Pipelines:			
NGTL	287,745	10/31/2020	
	82,223	10/31/2020	
Total NOVA:	369,968		99%
Foothills-BC System	284,810	10/31/2020	
	81,384	10/31/2020	
Total Foothills-BC System:	366,194		99%
Interstate Pipelines:			
Gas Transmission Northwest	279,968	10/31/2020	
Seasonal	80,000	10/31/2020	
Total Gas Transmission Northwest:	359,968		99%
Transwestern Pipeline Co.			
Total TW:	162,000	3/31/2020	99%
Ruby			
Total Ruby:	250,000	10/31/2026	90%
PG&E Core Gas Supply- Intrastate Pipelines:			
Redwood Path			
Total Redwood:	605,088	3/31/2020	99%
Baja Path	182,000	3/31/2020	
Seasonal	157,000	10/31/2019	
Total Baja:	Varies		97%

Exhibits

2-1
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020
CPIM Calculation

	Interstate and Intrasta	te Gas Purchase	Pipeline Reser	vation Charge	CPIM Performance												
· <u></u>	Actual	Benchmark	Actual	Benchmark	Total	Total	Benchmark	Upper Limit	Lower Limit	(Over)/Under							
_	Commodity	Commodity	Reservation Charge	Reservation Charges	Actual Costs	Benchmark Costs	Less Actuals	(2%)	(1%)	Tolerance Band							
Nov-19 \$	47,390,537 \$	51,914,774	\$ 27,692,821	\$ 27,711,408	\$ 75,083,358	\$ 79,626,182 \$	4,542,824 \$	80,664,477 \$	79,107,034 \$	4,023,676							
Dec-19 \$		64,944,731					(1,293,271) \$	94,109,205 \$	92,160,863 \$	(1,942,718)							
Jan-20 \$		68,656,633					(2,107,085) \$	101,566,296 \$	99,506,597 \$	(2,793,651)							
Feb-20 \$		45,931,219					(3,695,857) \$	78,098,334 \$	76,720,398 \$	(4,155,169)							
Mar-20 \$		38,574,055					(1,325,326) \$	70,070,501 \$	68,913,279 \$	(1,711,067)							
Apr-20 \$		29,388,113					(1,717,241) \$	47,807,649 \$	46,926,006 \$	(2,011,122)							
May-20 \$		25,159,553					1,544,470 \$	45,223,177 \$	44,468,390 \$	1,292,874							
Jun-20 \$		22,767,308					2,837,169 \$	42,566,520 \$	41,883,501 \$	2,609,496							
Jul-20 \$		21,155,447					1,572,889 \$	40,830,857 \$	40,196,194 \$	1,361,335							
Aug-20 \$		21,729,646					7,028,550 \$	41,423,873 \$	40,771,984 \$	6,811,254							
Sep-20 \$		26,609,389					5,602,016 \$	46,196,683 \$	45,398,401 \$	5,335,922							
Oct-20 \$	24,403,976 \$	29,263,093	\$ 19,144,518	\$ 19,147,080	\$ 43,548,494	\$ 48,410,173 \$	4,861,679 \$	48,995,435 \$	48,117,542 \$	4,569,048							
Total \$	428,354,530 \$	446,093,961	\$ 282,425,781	\$ 282,537,167	\$ 710,780,311	\$ 728,631,128 \$	17,850,817 \$	737,553,007 \$	724,170,188 \$	13,389,877							
Reference	A	В	С	D	E=A+C	F=B+D	G=F-E	H=A*1.02+C	I=A*0.99+C	J=E-I							
			Benchmark Costs	\$ 728,631,128	F												
			Actual Costs	\$ 710,780,311	E												
			CPIM Saving		G=F-E												
							Tot	tal Shareholder Reward \$	2,677,975								
			Lower Tolerance Band (1%)	\$ 724,170,188	I												
						Sha	reholder Award Cap 1.5% of	Total Commodity Costs \$	6,425,318	P=A*0.015							
Amount f	for Benchmark Costs less Low				K=F-I												
	Lower Tolerance B	and Less Actual Commo	dit Cost (Subject to Sharing)	\$ 13,389,877	L=I-E												
			30% - 20% Sharing (1% - 5%)	\$ 13,389,877	L												
			30% - 20% Sharing (1% - 5%) _ Ratepayers' Share: 80%	\$ 13,389,877 \$ 10,711,902	L M=L*.8												
			30% - 20% Sharing (1% - 5%)	\$ 13,389,877 \$ 10,711,902	L												
			30% - 20% Sharing (1% - 5%) _ Ratepayers' Share: 80%	\$ 13,389,877 \$ 10,711,902 \$ 2,677,975	L M=L*.8												
			30% - 20% Sharing (1% - 5%) Ratepayers' Share: 80% Shareholders' Share: 20%	\$ 13,389,877 \$ 10,711,902 \$ 2,677,975 \$ 2,677,975	L M=L*.8 N=L*.2												

2-1a Pacific Gas and Electric Company CPIM Year 27 November 1, 2019 - October 31, 2020

CPIM Costs/Savings

Benchmark Costs	\$	728,631,128
Actual Costs	\$	710,780,311
CPIM Saving	\$	17,850,817
Lower Tolerance Band (1%)	\$	724,170,188
Amount for Lower Tolerance Band Not Subject to Sharing (0% - 1%)	\$	13,389,877
Amount for Subject to 80% - 20% Sharing (1% - 5%)	\$	13,389,877
Ratepayers' Share: 80%	\$	10,711,902
Shareholders' Share: 20%	\$	2,677,975
Total Shareholder Reward	\$	2,677,975
Total Ratepayer Saving	\$	15,172,842
CPIM Saving	\$	17,850,817
Total Shareholder Reward	¢	2,677,975
Rounding	-	2,077,373
Total Shareholder Reward		2,677,975

2-2
Pacific Gas and Electric Company
CPIM Year 27

November 1, 2019 - October 31, 2020

CPIM Performance

	Actual	Benchmark	Under/Over
Commodity Costs	\$ 503,381,820	\$ 440,620,794	\$ (62,761,026)
Volumetric Transportation Costs	\$ 39,472,175	\$ -	\$ (39,472,175)
Commodity Sales	\$ (121,359,492)	\$ -	\$ 121,359,492
Total Gas Purchase Costs	\$ 421,494,503	\$ 440,620,794	\$ 19,126,291
Other Costs and Revenues	\$ 55,167	\$ -	\$ (55,167)
Winter Hedging Costs	\$ 6,658,460	\$ 5,326,767	\$ (1,331,693)
Customs & Border Protection			
Merchandise Processing Fee	\$ 146,400	\$ 146,400	\$ -
Total Commodity Costs	\$ 428,354,530	\$ 446,093,961	\$ 17,739,431
Demand Charges	\$ 203,090,887	\$ 203,090,887	\$ -
Discount Demand Charges	\$ (111,386)	\$ -	\$ 111,386
Capacity Release Revenues	\$ -	\$ -	\$ -
Firm Storage Costs	\$ 79,446,280	\$ 79,446,280	\$ -
Total Reservation Costs	\$ 282,425,781	\$ 282,537,167	\$ 111,386
Total	\$ 710,780,311	\$ 728,631,128	\$ 17,850,817

2-3
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020
Monthly Actual Costs

					Mont	thly Actual Costs							
	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Total
Commodity Costs \$	59,023,858 \$	74,541,519 \$	69,939,760 \$	47,499,347 \$	41,567,451 \$	31,685,633 \$	24,951,745 \$	25,508,818 \$	26,039,503 \$	29,812,876 \$	35,418,156 \$	37,393,154 \$	503,381,820
Volumetric Transportation Costs \$	3,432,478 \$	3,375,346 \$	4,767,638 \$	4,436,235 \$	4,573,840 \$	2,593,873 \$	2,747,993 \$	2,687,039 \$	2,674,934 \$	2,736,569 \$	2,742,982 \$	2,703,248 \$	39,472,175
Commodity Sales \$	(15,306,685) \$	(13,172,543) \$	(6,046,891) \$	(4,752,670) \$	(6,233,816) \$	(3,043,333) \$	(3,904,571) \$	(7,966,727) \$	(8,760,415) \$	(17,846,501) \$	(17,917,805) \$	(16,407,535) \$	(121,359,492)
Total Gas Purchase Costs \$	47,149,651 \$	64,744,322 \$	68,660,507 \$	47,182,912 \$	39,907,475 \$	31,236,173 \$	23,795,167 \$	20,229,130 \$	19,954,022 \$	14,702,944 \$	20,243,333 \$	23,688,867 \$	421,494,503
Other Costs and Revenues \$	228,886 \$	(203,587) \$	(402,561) \$	8,722 \$	(1,865) \$	(140,305) \$	(189,887) \$	(308,477) \$	(381,302) \$	(11,686) \$	754,520 \$	702,709 \$	55,167
100% Winter Hedging Costs \$	- \$	1,704,073 \$	2,512,578 \$	2,441,809 \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	6,658,460
Custom and Border Protection													
Marchandise Processing Fee \$	12,000 \$	12,400 \$	12,400 \$	11,600 \$	12,400 \$	12,000 \$	12,400 \$	12,000 \$	12,400 \$	12,400 \$	12,000 \$	12,400 \$	146,400
Total Commodity Costs \$	47,390,537 \$	66,257,208 \$	70,782,924 \$	49,645,043 \$	39,918,010 \$	31,107,868 \$	23,617,680 \$	19,932,653 \$	19,585,120 \$	14,703,658 \$	21,009,853 \$	24,403,976 \$	428,354,530
Demand Charges \$	18,843,673 \$	18,997,844 \$	21,653,519 \$	21,400,455 \$	20,876,929 \$	14,617,973 \$	14,736,764 \$	14,526,465 \$	14,434,900 \$	14,442,233 \$	14,234,079 \$	14,326,053 \$	203,090,887
Discount Demand Charges \$	(18,587) \$	(19,206) \$	(19,206) \$	(17,967) \$	(18,629) \$	(2,514) \$	(2,597) \$	(2,514) \$	(2,562) \$	(2,562) \$	(2,480) \$	(2,562) \$	(111,386)
Capacity Release Revenues \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
Firm Storage Costs \$	8,867,735 \$	8,867,735 \$	9,883,011 \$	9,848,036 \$	9,848,036 \$	3,213,801 \$	4,823,669 \$	4,817,401 \$	4,817,401 \$	4,817,401 \$	4,821,027 \$	4,821,027 \$	79,446,280
Total Reservation Costs \$	27,692,821 \$	27,846,373 \$	31,517,324 \$	31,230,524 \$	30,706,336 \$	17,829,260 \$	19,557,836 \$	19,341,352 \$	19,249,739 \$	19,257,072 \$	19,052,626 \$	19,144,518 \$	282,425,781
Actual Costs \$	75,083,358 \$	94,103,581 \$	102,300,248 \$	80,875,567 \$	70,624,346 \$	48,937,128 \$	43,175,516 \$	39,274,005 \$	38,834,859 \$	33,960,730 \$	40,062,479 \$	43,548,494 \$	710,780,311

2-4 Pacific Gas and Electric Company CPIM Year 27

November 1, 2019 - October 31, 2020 Monthly Benchmark Costs

						_	,							
	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Total
Commodity Cost \$	51,902,774	\$ 63,569,073	\$ 66,634,171	\$ 43,966,172	\$ 38,561,655	\$	29,376,113	\$ 25,147,153	\$ 22,755,308	\$ 21,143,047	\$ 21,717,246	\$ 26,597,389	\$ 29,250,693	\$ 440,620,794
Volumetric Transportation Costs \$	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -						
Commodity Sales \$	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -						
Total Gas Purchase Cost \$	51,902,774	\$ 63,569,073	\$ 66,634,171	\$ 43,966,172	\$ 38,561,655	\$	29,376,113	\$ 25,147,153	\$ 22,755,308	\$ 21,143,047	\$ 21,717,246	\$ 26,597,389	\$ 29,250,693	\$ 440,620,794
Other Costs and Revenues \$	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -						
100% Winter Hedging Cost \$	-	\$ 1,363,258	\$ 2,010,062	\$ 1,953,447	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,326,767
Custom and Border Protection														
Marchandise Processing Fee \$	12,000	\$ 12,400	\$ 12,400	\$ 11,600	\$ 12,400	\$	12,000	\$ 12,400	\$ 12,000	\$ 12,400	\$ 12,400	\$ 12,000	\$ 12,400	\$ 146,400
Total Commodity Cost \$	51,914,774	\$ 64,944,731	\$ 68,656,633	\$ 45,931,219	\$ 38,574,055	\$	29,388,113	\$ 25,159,553	\$ 22,767,308	\$ 21,155,447	\$ 21,729,646	\$ 26,609,389	\$ 29,263,093	\$ 446,093,961
Demand Charge \$	18,843,673	\$ 18,997,844	\$ 21,653,519	\$ 21,400,455	\$ 20,876,929	\$	14,617,973	\$ 14,736,764	\$ 14,526,465	\$ 14,434,900	\$ 14,442,233	\$ 14,234,079	\$ 14,326,053	\$ 203,090,887
Discount Demand Charges \$	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -						
Capacity Release Revenue \$	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -						
Firm Storage Cost \$	8,867,735	\$ 8,867,735	\$ 9,883,011	\$ 9,848,036	\$ 9,848,036	\$	3,213,801	\$ 4,823,669	\$ 4,817,401	\$ 4,817,401	\$ 4,817,401	\$ 4,821,027	\$ 4,821,027	\$ 79,446,280
Total Reservation Cost \$	27,711,408	\$ 27,865,579	\$ 31,536,530	\$ 31,248,491	\$ 30,724,965	\$	17,831,774	\$ 19,560,433	\$ 19,343,866	\$ 19,252,301	\$ 19,259,634	\$ 19,055,106	\$ 19,147,080	\$ 282,537,167
Benchmark CPIM Commodity Cost \$	79,626,182	\$ 92,810,310	\$ 100,193,163	\$ 77,179,710	\$ 69,299,020	\$	47,219,887	\$ 44,719,986	\$ 42,111,174	\$ 40,407,748	\$ 40,989,280	\$ 45,664,495	\$ 48,410,173	\$ 728,631,128

2-5
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020

Actual Commodity Purchases Summary

	CGT-								
	PGE Citygate	CGT	El Paso	GTN	Kern	Nova	Ruby	TW	Total
Nov-19	\$ 4,848,546	\$ 10,356,858	\$ -	\$ 995,184	\$ -	\$ 16,920,165	\$ 12,560,383	\$ 13,342,722	\$ 59,023,858
Dec-19	\$ 5,476,181	\$ 11,359,462	\$ -	\$ 1,162,600	\$ 23,213	\$ 20,231,290	\$ 19,251,029	\$ 17,037,744	\$ 74,541,519
Jan-20	\$ 9,293,599	\$ 8,657,144	\$ -	\$ 1,739,780	\$ 41,625	\$ 17,376,090	\$ 16,433,310	\$ 16,398,212	\$ 69,939,760
Feb-20	\$ 5,905,315	\$ 7,103,208	\$ -	\$ 705,406	\$ -	\$ 14,792,966	\$ 9,159,736	\$ 9,832,716	\$ 47,499,347
Mar-20	\$ 7,483,766	\$ 6,251,974	\$ -	\$ 399,379	\$ 8,843	\$ 11,816,219	\$ 6,692,784	\$ 8,914,486	\$ 41,567,451
Apr-20	\$ 11,347,774	\$ 106,293	\$ -	\$ 804,869	\$ 85,739	\$ 11,247,672	\$ 5,110,803	\$ 2,982,483	\$ 31,685,633
May-20	\$ 1,162,515	\$ 483,583	\$ -	\$ 674,777	\$ -	\$ 12,705,584	\$ 7,112,050	\$ 2,813,236	\$ 24,951,745
Jun-20	\$ 63,000	\$ 52,025	\$ -	\$ 2,418,189	\$ -	\$ 13,558,571	\$ 6,839,388	\$ 2,577,645	\$ 25,508,818
Jul-20	\$ 496,533	\$ -	\$ 4,303	\$ 3,746,488	\$ -	\$ 12,831,440	\$ 6,241,801	\$ 2,718,938	\$ 26,039,503
Aug-20	\$ 2,104,701	\$ 977,198	\$ -	\$ 3,000,995	\$ -	\$ 13,737,699	\$ 6,981,905	\$ 3,010,378	\$ 29,812,876
Sep-20	\$ 521,767	\$ 1,520,580	\$ 5,100	\$ 3,050,426	\$ -	\$ 17,010,855	\$ 9,253,120	\$ 4,056,308	\$ 35,418,156
Oct-20	\$ 2,680,553	\$ 5,837,134	\$ -	\$ -	\$ -	\$ 16,075,793	\$ 8,831,383	\$ 3,968,291	\$ 37,393,154
Total :	\$ 51,384,250	\$ 52,705,459	\$ 9,403	\$ 18,698,093	\$ 159,420	\$ 178,304,344	\$ 114,467,692	\$ 87,653,159	\$ 503,381,820

503,381,820

\$ -

2-6
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020
Volumetric Transportation Costs

_								V	Jiuii	ictric Transportation co	J3 L3	,						
			(Gas Transmission		Kern River												
	El Paso Natur	ral		Northwest	G	Sas Transmission	Ind	ependent Storage	F	PG&E California Gas				Tra	nswestern Pipeline	Will	iams Field Services	
	Gas Company,	LLC		LLC		Company		Providers		Transmission	R	Ruby Pipeline, LLC	Transcanada		Company		Complany, LLC	Total
Nov-19	\$	-	\$	97,315	\$	-	\$	-	\$	3,042,051	\$	222,045	\$ -	\$	63,187	\$	7,880	\$ 3,432,478
Dec-19	\$	-	\$	100,508	\$	-	\$	-	\$	3,043,287	\$	164,241	\$ -	\$	59,563	\$	7,747	\$ 3,375,346
Jan-20	\$	-	\$	98,593	\$	-	\$	-	\$	4,424,537	\$	169,681	\$ -	\$	66,982	\$	7,845	\$ 4,767,638
Feb-20	\$	-	\$	93,833	\$	-	\$	-	\$	4,115,453	\$	156,976	\$ -	\$	62,573	\$	7,400	\$ 4,436,235
Mar-20	\$	-	\$	97,028	\$	-	\$	-	\$	4,272,063	\$	130,295	\$ -	\$	65,210	\$	9,244	\$ 4,573,840
Apr-20	\$	-	\$	94,399	\$	-	\$	9,536	\$	2,358,133	\$	121,629	\$ -	\$	-	\$	10,176	\$ 2,593,873
May-20	\$	-	\$	98,156	\$	-	\$	30,110	\$	2,447,547	\$	163,587	\$ -	\$	-	\$	8,593	\$ 2,747,993
Jun-20	\$	-	\$	95,354	\$	-	\$	22,485	\$	2,369,626	\$	193,192	\$ -	\$	-	\$	6,382	\$ 2,687,039
Jul-20	\$	-	\$	94,771	\$	-	\$	11,083	\$	2,398,222	\$	163,629	\$ -	\$	-	\$	7,229	\$ 2,674,934
Aug-20	\$	-	\$	91,951	\$	-	\$	5,294	\$	2,420,226	\$	211,344	\$ -	\$	-	\$	7,754	\$ 2,736,569
Sep-20	\$	-	\$	86,037	\$	-	\$	3,960	\$	2,406,062	\$	238,912	\$ -	\$	-	\$	8,011	\$ 2,742,982
Oct-20	\$	-	\$	91,049	\$	-	\$	2,049	\$	2,415,359	\$	187,564	\$ -	\$	-	\$	7,227	\$ 2,703,248
Total	\$	-	\$	1,138,994	\$	-	\$	84,517	\$	35,712,566	\$	2,123,095	\$ -	\$	317,515	\$	95,488	\$ 39,472,175

39,472,175

\$

2-7
Pacific Gas and Electric Company
CPIM Year 27

	CGT-									
	PG&E Citygate	CGT -All	El Paso	GTN	Kern	Nova	Ruby	TW	WFS T	otal
Nov-19 \$	(11,942,628) \$	(246,142)	-	\$ (253,886) \$	(229,504) \$	(10,407) \$	- \$	(91,485) \$	(2,532,633) \$ (15)	,306,685)
Dec-19 \$	(7,967,475) \$	- 9	-	\$ (176,532) \$	(507,362) \$	(1,713) \$	(139,968) \$	(59,908) \$	(4,319,585) \$ (13)	,172,543)
Jan-20 \$	(2,519,918) \$	(8,605)	-	\$ (937,633) \$	(246,363) \$	(7,739) \$	- \$	- \$	(2,326,633) \$ (6	5,046,891)
Feb-20 \$	(3,516,809) \$	- 9	-	\$ (3,707) \$	(9,200) \$	- \$	(33,640) \$	- \$	(1,189,314) \$ (4	1,752,670)
Mar-20 \$	(5,739,927) \$	- 9	-	\$ (61,363) \$	(8,573) \$	(405,368) \$	- \$	- \$	(18,585) \$ (6	5,233,816)
Apr-20 \$	(2,097,375) \$	- 9	-	\$ (19,667) \$	(214,274) \$	(56,672) \$	(115,795) \$	- \$	(539,550) \$ (3	3,043,333)
May-20 \$	(2,919,996) \$	- 9	-	\$ (22,860) \$	(16,800) \$	- \$	(835,019) \$	- \$	(109,896) \$ (3	3,904,571)
Jun-20 \$	(5,654,288) \$	- 9	-	\$ (10,785) \$	(608,603) \$	- \$	(243,239) \$	- \$	(1,449,812) \$ (7	7,966,727)
Jul-20 \$	(5,612,871) \$	- 9	-	\$ (4,264) \$	(1,136,701) \$	(319,734) \$	(324,582) \$	- \$	(1,362,263) \$ (8	3,760,415)
Aug-20 \$	(14,955,810) \$	- 9	-	\$ (9,200) \$	(581,659) \$	(1,079,160) \$	(153,950) \$	- \$	(1,066,722) \$ (17,	,846,501)
Sep-20 \$	(15,098,402) \$	- 9	-	\$ (414,630) \$	(394,161) \$	(1,286,155) \$	(25,025) \$	- \$	(699,432) \$ (17)	,917,805)
Oct-20 \$	(11,145,538) \$	- 9	-	\$ (214,202) \$	(1,518,089) \$	(916,083) \$	(61,570) \$	- \$	(2,552,053) \$ (16)	,407,535)
Total \$	(89,171,037) \$	(254,747)	-	\$ (2,128,729) \$	(5,471,289) \$	(4,083,031) \$	(1,932,788) \$	(151,393) \$	(18,166,478) \$ (121	,359,492)

\$ (121,359,492)

2-8
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020

Demand Charges Summary

	El Paso Natural Gas	tural Gas Gas Transmission		PG&E California			Tr	anscanada-Foothills	Т	ranscanda Nova Gas				
	Company LLC		Northwest LLC	Transmission		Ruby Pipeline, LLC		Pipelines Itd		Transmission Itd		Company		Total
Nov-19 \$	-	\$	2,351,052	\$ 8,976,267	\$	4,254,040	\$	687,892	\$	1,294,809	\$	1,279,613	\$	18,843,673
Dec-19 \$	-	\$	2,429,422	\$ 8,976,267	\$	4,254,961	\$	699,072	\$	1,315,855	\$	1,322,267	\$	18,997,844
Jan-20 \$	-	\$	2,244,841	\$ 11,797,541	\$	4,254,961	\$	626,243	\$	1,407,666	\$	1,322,267	\$	21,653,519
Feb-20 \$	-	\$	2,100,012	\$ 11,797,541	\$	4,253,281	\$	619,701	\$	1,392,961	\$	1,236,959	\$	21,400,455
Mar-20 \$	-	\$	2,177,356	\$ 11,442,789	\$	4,127,543	\$	568,605	\$	1,278,109	\$	1,282,527	\$	20,876,929
Apr-20 \$	-	\$	2,107,119	\$ 6,547,062	\$	4,102,906	\$	572,968	\$	1,287,918	\$	-	\$	14,617,973
May-20 \$	-	\$	2,177,356	\$ 6,547,062	\$	4,127,514	\$	580,341	\$	1,304,491	\$	-	\$	14,736,764
Jun-20 \$	-	\$	2,107,119	\$ 6,547,062	\$	4,126,028	\$	587,835	\$	1,158,421	\$	-	\$	14,526,465
Jul-20 \$	-	\$	2,148,054	\$ 6,459,044	\$	4,071,650	\$	591,165	\$	1,164,987	\$	-	\$	14,434,900
Aug-20 \$	-	\$	2,119,697	\$ 6,459,044	\$	4,071,650	\$	603,179	\$	1,188,663	\$	-	\$	14,442,233
Sep-20 \$	-	\$	1,945,617	\$ 6,459,044	\$	4,070,657	\$	592,044	\$	1,166,717	\$	-	\$	14,234,079
Oct-20 \$	-	\$	2,024,851	\$ 6,459,044	\$	4,071,563	\$	596,027	\$	1,174,568	\$	-	\$	14,326,053
Total \$	-	\$	25,932,496	\$ 98,467,767	\$	49,786,754	\$	7,325,072	\$	15,135,165	\$	6,443,633	\$	203,090,887

Demand charge are net of CTA stranded cost, CTA capacity release,

\$ 203,090,887

2-9
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020
Other Commodity Costs and Revenues

-		Non-Winter Hedge Costs	Miscellaneous Costs		
	Cochrane Extraction	and	and		
_	Revenue	Revenues	Revenues		Total
Nov-19	\$ (190,417)	\$ 396,983	\$ 22,320	\$	228,886
Dec-19	\$ (202,098)	\$ (24,800)	\$ 23,311	\$	(203,587)
Jan-20	\$ (181,649)	\$ (249,322)	\$ 28,410	\$	(402,561)
Feb-20	\$ (151,662)	\$ 115,891	\$ 44,493	\$	8,722
Mar-20	\$ (62,045)	\$ -	\$ 60,180	\$	(1,865)
Apr-20	\$ (69,015)	\$ (93,000)	\$ 21,710	\$	(140,305)
May-20	\$ (124,159)	\$ (98,813)	\$ 33,085	\$	(189,887)
Jun-20	\$ (195,692)	\$ (139,763)	\$ 26,978	\$	(308,477)
Jul-20	\$ (172,100)	\$ (237,925)	\$ 28,723	\$	(381,302)
Aug-20	\$ (158,644)	\$ 119,621	\$ 27,337	\$	(11,686)
Sep-20	\$ (156,239)	\$ 877,230	\$ 33,529	\$	754,520
Oct-20	\$ (163,211)	\$ 808,635	\$ 57,285	\$	702,709
Total	\$ (1,826,931)	\$ 1,474,737	\$ 407,361	\$	55,167

2-10
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020

Winter Hedge Transaction

•						Winter Hedge
	Option	C	ption and Swap			Costs
	Premiums		Settlements	Со	mmissoin and Fee	Total
Nov-19	\$ -	\$	-	\$	-	\$ -
Dec-19	\$ 2,153,028	\$	(455,700)	\$	6,745	\$ 1,704,073
Jan-20	\$ 2,530,593	\$	(24,800)	\$	6,785	\$ 2,512,578
Feb-20	\$ 2,435,493	\$	-	\$	6,316	\$ 2,441,809
Mar-20	\$ -	\$	-	\$	-	\$ -
Apr-20	\$ -	\$	-	\$	-	\$ -
May-20	\$ -	\$	-	\$	-	\$ -
Jun-20	\$ -	\$	-	\$	-	\$ -
Jul-20	\$ -	\$	-	\$	-	\$ -
Aug-20	\$ -	\$	-	\$	-	\$ -
Sep-20	\$ -	\$	-	\$	-	\$ -
Oct-20	\$ -	\$	-	\$	-	\$ -
Total	\$ 7,119,114	\$	(480,500)	\$	19,846	\$ 6,658,460

2-11 Pacific Gas and Electric Company CPIM Year 27 November 1, 2019 - October 31, 2020

_	_		,	_	_	_	-		-	_	_	,	_	_
De	ema	and	Cha	rge	Di	isc	oı	ur	١t	s S	Sur	nn	naı	'n

-	El Paso Natural Gas	Gas Transmission	Tr	answestern Pipeline	
_	Company LLC	Northwest LLC		Company	Total
Nov-19	\$ -	\$ (2,592)	\$	(15,995)	\$ (18,587)
Dec-19	\$ -	\$ (2,678)	\$	(16,528)	\$ (19,206)
Jan-20	\$ -	\$ (2,678)	\$	(16,528)	\$ (19,206)
Feb-20	\$ -	\$ (2,505)	\$	(15,462)	\$ (17,967)
Mar-20	\$ -	\$ (2,597)	\$	(16,032)	\$ (18,629)
Apr-20	\$ -	\$ (2,514)	\$	-	\$ (2,514)
May-20	\$ -	\$ (2,597)	\$	-	\$ (2,597)
Jun-20	\$ -	\$ (2,514)	\$	-	\$ (2,514)
Jul-20	\$ -	\$ (2,562)	\$	-	\$ (2,562)
Aug-20	\$ -	\$ (2,562)	\$	-	\$ (2,562)
Sep-20	\$ -	\$ (2,480)	\$	-	\$ (2,480)
Oct-20	\$ -	\$ (2,562)	\$	-	\$ (2,562)
Total	\$ -	\$ (30,841)	\$	(80,545)	\$ (111,386)

2-12

Pacific Gas and Electric Company

CPIM Year 27

November 1, 2019 - October 31, 2020

Capacity Release Revenue

			Kern River			Transcanada -			
	El Paso Natural	Gas Transmission	Gas Transmission	PG&E California Gas		Foothills	Transcanada Nova Gas	Transwestern Pipeline	
	Gas Company LLC	Northwest LLC	Company	Transmission	Ruby Pipeline LLC	Pipelines Ltd	Transmission Ltd	Company	Total
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

2-13
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020
Firm Incremental Storage

	F	PG&E California	In	dependent Storage					
		Transmission		Providers		Total			
Nov-19	\$	8,832,760	\$	34,975	\$	8,867,735			
Dec-19	\$	8,832,760	\$	34,975	\$	8,867,735			
Jan-20	\$	9,848,036	\$	34,975	\$	9,883,011			
Feb-20	\$	9,848,036	\$	-	\$	9,848,036			
Mar-20	\$	9,848,036	\$	-	\$	9,848,036			
Apr-20	\$	1,809,636	\$	1,404,165	\$	3,213,801			
May-20	\$	1,809,636	\$	3,014,033	\$	4,823,669			
Jun-20	\$	1,809,636	\$	3,007,765	\$	4,817,401			
Jul-20	\$	1,809,636	\$	3,007,765	\$	4,817,401			
Aug-20	\$	1,809,636	\$	3,007,765	\$	4,817,401			
Sep-20	\$	1,813,262	\$	3,007,765	\$	4,821,027			
Oct-20	\$	1,813,262	\$	3,007,765	\$	4,821,027			
Total	\$	59,884,332	\$	19,561,948	\$	79,446,280			

2-14
Pacific Gas and Electric Company
CPIM Year 27

November 1, 2019 - October 31, 2020 Benchmark Commodity Cost

	Ruby Opal	NOVA Aeco		TW San Juan		N Kingsgate	RedWood	Topock-Baja		Citygate		Total	
Nov-19	\$ 11,479,019	\$ 17,954,932	\$	9,566,793	\$	143,257	\$ -	\$	3,228,134	\$	9,530,639	\$	51,902,774
Dec-19	\$ 18,904,921	\$ 21,144,816	\$	11,326,103	\$	183,060	\$ -	\$	6,189,536	\$	5,820,637	\$	63,569,073
Jan-20	\$ 19,543,866	\$ 18,887,358	\$	11,369,397	\$	191,885	\$ -	\$	6,248,265	\$	10,393,400	\$	66,634,171
Feb-20	\$ 11,116,437	\$ 16,041,540	\$	6,810,009	\$	154,606	\$ -	\$	4,068,542	\$	5,775,038	\$	43,966,172
Mar-20	\$ 9,223,348	\$ 12,964,554	\$	6,827,862	\$	78,556	\$ -	\$	3,693,219	\$	5,774,116	\$	38,561,655
Apr-20	\$ 7,883,008	\$ 12,654,595	\$	-	\$	-	\$ 172,439	\$	-	\$	8,666,071	\$	29,376,113
May-20	\$ 9,626,092	\$ 14,035,498	\$	-	\$	-	\$ 104,905	\$	-	\$	1,380,658	\$	25,147,153
Jun-20	\$ 7,737,490	\$ 15,013,614	\$	-	\$	-	\$ 4,204	\$	-	\$	-	\$	22,755,308
Jul-20	\$ 10,562,730	\$ 10,580,317	\$	-	\$	-	\$ -	\$	-	\$	-	\$	21,143,047
Aug-20	\$ 11,410,349	\$ 10,306,897	\$	-	\$	-	\$ -	\$	-	\$	-	\$	21,717,246
Sep-20	\$ 8,495,002	\$ 18,102,387	\$	-	\$	-	\$ -	\$	-	\$	-	\$	26,597,389
Oct-20	\$ 9,819,497	\$ 17,149,582	\$	-	\$	-	\$ 160,545	\$	-	\$	2,121,069	\$	29,250,693
Total	\$ 135,801,759	\$ 184,836,090	\$	45,900,164	\$	751,364	\$ 442,093	\$	23,427,696	\$	49,461,628	\$	440,620,794

2-15
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020

Benchmark Winter Hedge Costs

Option	0	ption and Swap		Commision														
Premiums		Settlements		and Fees		Total												
\$ -	\$	-	\$	-	\$	-												
\$ 1,722,422	\$	(364,560)	\$	5,396	\$	1,363,258												
\$ 2,024,474	\$	(19,840)	\$	5,428	\$	2,010,062												
\$ 1,948,394	\$	-	\$	5,053	\$	1,953,447												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ -	\$	-	\$	-	\$	-												
\$ 5,695,290	\$	(384,400)	\$	15,877	\$	5,326,767												
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Premiums \$	Premiums \$ - \$ \$ 1,722,422 \$ \$ 2,024,474 \$ \$ 1,948,394 \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$	Premiums Settlements \$ - \$ - \$ - \$ (364,560) \$ (19,840) \$ (19,840) \$ - - \$ - \$ - - \$ - \$ -	Premiums Settlements \$ - \$ \$ 1,722,422 \$ (364,560) \$ \$ 2,024,474 \$ (19,840) \$ \$ 1,948,394 \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$ - \$ - \$ \$	Premiums Settlements and Fees \$ - \$ - \$ 5,396 \$ 5,396 \$ 5,396 \$ 5,396 \$ 5,396 \$ 5,428 \$ 5,428 \$ 5,053 \$ 5,053 \$ 5,053 \$ - \$ 5,053 \$ - \$ - \$ - \$ - \$ - \$ - \$ - - \$ - - \$ - <t< td=""><td>Premiums Settlements and Fees \$ - \$ - \$ \$ 1,722,422 \$ (364,560) \$ 5,396 \$ \$ 2,024,474 \$ (19,840) \$ 5,428 \$ \$ 1,948,394 \$ - \$ 5,053 \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$</td></t<>	Premiums Settlements and Fees \$ - \$ - \$ \$ 1,722,422 \$ (364,560) \$ 5,396 \$ \$ 2,024,474 \$ (19,840) \$ 5,428 \$ \$ 1,948,394 \$ - \$ 5,053 \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$												

2-16 Pacific Gas and Electric Company CPIM Year 27

Actual Commudity Purchases Volume Summary in MMBtu

	CGT-									
	PGE Citygate	CGT	El Paso	GTN	Kern	Nova	Ruby	TW	WFS	Total
Nov-19	1,390,400	4,512,487	-	378,800	-	9,134,397	5,160,060	4,037,888	1,987,800	26,601,832
Dec-19	1,591,393	4,608,743	-	325,000	7,500	9,440,352	5,737,592	4,152,173	1,861,178	27,723,931
Jan-20	2,929,706	4,712,921	-	642,197	15,000	9,440,352	5,463,310	4,199,630	1,884,500	29,287,616
Feb-20	2,234,500	4,328,728	-	381,700	-	8,827,873	4,702,633	3,923,159	1,740,000	26,138,593
Mar-20	2,894,600	4,491,425	-	250,500	4,500	9,412,391	4,268,421	4,088,532	1,860,500	27,270,869
Apr-20	4,917,699	74,800	-	547,000	63,600	8,887,680	3,842,543	-	2,233,819	20,567,141
May-20	452,600	290,005	-	415,100	-	9,152,405	4,379,300	-	1,720,900	16,410,310
Jun-20	30,000	35,000	-	1,610,060	-	8,857,350	4,340,477	-	1,626,000	16,498,887
Jul-20	211,000	-	-	2,448,187	-	9,040,752	3,974,100	-	1,725,000	17,399,039
Aug-20	773,400	380,300	-	1,387,730	30,000	9,029,189	4,006,927	-	1,726,900	17,334,446
Sep-20	154,413	616,200	-	1,355,100	-	8,827,494	3,815,117	-	1,667,700	16,436,024
Oct-20	655,116	-	-	2,508,405	-	9,175,153	3,888,237	-	1,730,000	17,956,911
Total	18,234,827	24,050,609		12,249,779	120,600	109,225,388	53,578,717	20,401,382	21,764,297	259,625,599

Total Sale Volume: (45,569,920)
Total Net Purchase Volume: 214,055,679

2-17 Pacific Gas and Electric Company CPIM Year 27

Actual Commudity Sale Volume in MMBtu Summary

_	CGT-	CGT-								
	PGE Citygate	All	El Paso	GTN	Kern	Nova	Ruby	TW	WFS	Total
Nov-19	(3,661,300)	(134,022)	-	(85,900)	(91,216)	(5,023)	-	(76,222)	(939,613)	(4,993,296)
Dec-19	(2,436,700)	-	-	(52,500)	(148,587)	(948)	(40,836)	(14,977)	(1,400,678)	(4,095,226)
Jan-20	(954,142)	(7,470)	-	(351,900)	(106,600)	(4,076)	-	-	(1,040,800)	(2,464,988)
Feb-20	(1,342,800)	-	-	(2,100)	(5,000)	-	(18,200)	-	(670,000)	(2,038,100)
Mar-20	(2,216,399)	-	-	(40,000)	(4,500)	(314,580)	-	-	(11,800)	(2,587,279)
Apr-20	(880,300)	-	-	(14,700)	(163,477)	(43,220)	(88,874)	-	(401,650)	(1,592,221)
May-20	(1,176,600)	-	-	(14,400)	(10,000)	-	(501,010)	-	(64,900)	(1,766,910)
Jun-20	(2,381,900)	-	-	(8,000)	(402,897)	-	(162,360)	-	(966,400)	(3,921,557)
Jul-20	(2,329,700)	-	-	(2,600)	(742,800)	(215,534)	(201,638)	-	(892,500)	(4,384,772)
Aug-20	(5,546,474)	-	-	(5,000)	(244,406)	(552,103)	(62,192)	-	(468,100)	(6,878,275)
Sep-20	(4,319,800)	-	-	(168,000)	(179,398)	(752,567)	(10,050)	-	(339,500)	(5,769,315)
Oct-20	(2,821,800)	-	-	(79,700)	(670,582)	(448,791)	(26,490)	-	(1,030,618)	(5,077,981)
Total	(30,067,915)	(141,492)	-	(824,800)	(2,769,463)	(2,336,842)	(1,111,650)	(91,199)	(8,226,559)	(45,569,920)

(45,569,920)

2-18
Pacific Gas and Electric Company
CPIM Year 27
November 1, 2019 - October 31, 2020

Benchmark Load

	Ruby Opal	NOVA Aeco	TW San Juan	GTN Kingsgate	RedWood	Topock-Baja	Citygate	Total
Nov-19	4,592,675	8,685,510	3,933,965	61,650	-	1,281,146	2,672,437	21,227,383
Dec-19	5,216,715	8,893,341	3,827,186	69,378	-	2,325,132	1,705,915	22,037,667
Jan-20	5,765,982	8,931,751	4,072,401	80,662	-	2,981,449	3,371,738	25,203,983
Feb-20	5,135,050	8,262,507	3,700,725	70,180	-	2,186,597	2,176,984	21,532,043
Mar-20	5,289,335	8,704,583	3,954,971	45,260	-	2,256,311	2,165,147	22,415,607
Apr-20	5,288,030	8,415,510	-	-	105,134	-	3,804,398	17,613,072
May-20	5,364,608	8,737,319	-	-	58,950	-	543,817	14,704,694
Jun-20	4,383,802	8,487,990	-	-	2,399	-	-	12,874,191
Jul-20	6,019,003	6,397,440	-	-	-	-	-	12,416,443
Aug-20	5,952,687	5,828,315	-	-	-	-	-	11,781,002
Sep-20	3,228,302	8,236,050	-	-	-	-	-	11,464,352
Oct-20	3,976,681	8,504,417	-	-	45,899	-	518,196	13,045,193
Total	60,212,870	98,084,733	19,489,248	327,130	212,382	11,030,635	16,958,632	206,315,630

2-19
Pacific Gas and Electric Company
CPIM Year 27

Custom & Border Protection Merchandise

Processing Fee

_	Merchdise Processing Fee		
Nov-19	\$ 12,000		
Dec-19	\$ 12,400		
Jan-20	\$ 12,400		
Feb-20	\$ 11,600		
Mar-20	\$ 12,400		
Apr-20	\$ 12,000		
May-20	\$ 12,400		
Jun-20	\$ 12,000		
Jul-20	\$ 12,400		
Aug-20	\$ 12,400		
Sep-20	\$ 12,000		
Oct-20	\$ 12,400		
Total	\$ 146,400		

Pacific Gas and Electric Company CPIM Year 27

November 1, 2019 - October 31, 2020

Storage Inventory Summary

Gas Storage Providers	Beginning Inventory 11/01/19 (MMBtus)	Ending Inventory 10/31/2020 (MMBtus)	
Firm Storage CGT	28,476,019	13,312,205	
Incremental Storage	150,000	1,688,000	
Total Storage Inventor	y 28,626,019	15,000,205	