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Commissioner:  
Admin. Law Judge:



**PUBLIC ADVOCATES OFFICE**  
**California Public Utilities Commission**

**MONITORING AND EVALUATION REPORT**  
**November 1, 2017 through October 31, 2018**

**Pacific Gas and Electric Company's**  
**Core Procurement Incentive Mechanism**  
**Performance Results**  
**(CPIM Year 25)**

**Application 96-08-043**

**San Francisco, California**  
**December 11, 2020**

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# 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, 2017 through October 31, 2018 (Year 25). 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 25, which resulted in ratepayer savings.

PG&E submitted its CPIM Performance Report on January 6, 2020 which covered the period of November 1, 2017 through October 31, 2018. Cal Advocates' examination of PG&E's recorded costs for Year 25 shows that PG&E's actual gas costs were below the benchmark's lower tolerance band, which results in a reward of \$3,517,531 to PG&E's shareholders and a ratepayer benefit of \$19,065,644.<sup>1</sup>

### 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

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<sup>1</sup> See calculation on Cal Advocates CPIM Year 25 Report, Table 1-1.

reporting for PG&E's gas procurement costs. It sets forth guidelines for standard operating conditions and for special circumstances. The allowed monthly benchmark 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/ORA<sup>2</sup> 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;

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<sup>2</sup> 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).

- The 2.5 Billion cubic feet (Bcf) of un-sequenced storage withdrawal adjustment was eliminated and is included proportionately to the storage withdrawal sequence;
- 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 NGL daily Topock index to the NGL 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 25 period, PG&E's recorded actual commodity gas costs (excluding transportation, hedging, and storage costs) for core customers totaled \$573,624,592, which was associated with a purchase volume of 289,348,722 MMBtus.<sup>3</sup>

On 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 25, PG&E reported total gas sales of \$165,077,586 in revenue with an associated sales volume of 57,226,473 MMBtus.<sup>4</sup>

#### **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.<sup>5</sup>

Pursuant to D.10-01-023, PG&E remains responsible for managing hedges proactively to ensure stability in customer rates. This includes implementing controls

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<sup>3</sup> See Cal Advocates CPIM Year 25, Exhibits 2-5 and 2-16.

<sup>4</sup> Id., Exhibits 2-7 and 2-17.

<sup>5</sup> 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.

and selecting appropriate hedging instruments to mitigate derivative risks. PG&E is 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 25, the total costs of winter hedges included in the CPIM were \$8,622,242, which was comprised of \$8,610,405 in option premiums and \$11,837 in commissions and fees.<sup>6</sup>

## **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 25, beginning inventory including incremental storage was reported at 28,887,345 MMBtus, and ending inventory was 28,407,621 MMBtus.<sup>7</sup>

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 amount 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

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<sup>6</sup> See Cal Advocates CPIM Year 25, Exhibits 2-10.

<sup>7</sup> See calculation on Cal Advocates CPIM Year 25 Report, Table 2-5.

through 2015. This capacity became effective in Year 18 for the purpose of injection activity.

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.<sup>8</sup>

### **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.<sup>9</sup>

### **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), El Paso Natural Gas Company (EPNG), Transwestern Pipeline Company (TW), Ruby Pipeline, L.L.C. (Ruby), and Kern River Gas Transmission Company (Kern River).

For CPIM Year 25, core interstate capacity was reported as approximately 288 MDth/d for NOVA, 285 MDth/d for Foothills, 280 MDth/d for GTN, 25 MDth/d for EPNG, 50 MDth/d for TW, and 250 MDth/d for Ruby.<sup>10</sup>

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

<sup>9</sup> PG&E Annual Performance Report, Year 25, page 16-17.

<sup>10</sup> Id., page 18.



Pursuant to D.04-09-022, the Commission authorized PG&E to seek pre-approval and expedited advice letter treatment for interstate capacity contracts that meet specified criteria. Prior to seeking pre-approval, PG&E is required to consult with Cal Advocates, TURN, and the Energy Division (ED) to obtain agreement.

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.<sup>11</sup>

Pursuant to Advice Letter 3693-G, PG&E signed a contract with EPNG for 25,000 Dth/d from April 1, 2016 through March 31, 2018. In addition, Advice Letter 3692-G authorized PG&E to sign a seasonal contract with Transwestern for 50,000 Dth/d from April through October, and 190,000 Dth/d during November to March effective April 1, 2016 through March 31, 2018.<sup>12</sup>

## **1.9 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.

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<sup>11</sup> PG&E Annual Performance Report, Year 25, page 16.

<sup>12</sup> Id.

<b>Table 1-1</b>		
<b>Pacific Gas and Electric Company</b>		
<b>CPIM Year 25</b>		
<b>Gas Costs Comparison</b>		
<b>November 1, 2017 - October 31, 2018</b>		
Benchmark Gas Costs	\$	708,877,020
Actual Gas Costs	\$	686,197,729
Cal Advocates Audited Total Savings		\$ 22,679,291
PG&E Reported Savings		22,679,293
Variance		(2)
Rounding		2
Total Variance		\$ -
<b>Savings and Rewards</b>		
<b>Ratepayer Savings</b>		\$ 19,065,644
<b>Shareholder Rewards</b>		\$ 3,613,647
CPIM Savings		\$ 22,679,291
Shareholder Rewards		\$ 3,613,647
GTN Kingsgate Mismatch From Yr 23, Yr 24		\$ (96,116)
<b>Shareholder Rewards for Yr 25</b>		<b>\$ 3,517,531</b>

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

For the CPIM Year 25, Cal Advocates found no material variance for PG&E reported savings and Cal Advocates audited total savings. For this period, the total saving for the period is \$ 22,679,291. The ratepayer benefit associated with the total savings amounts to \$19,065,644 and PG&E's shareholder savings amount to \$3,613,647. The shareholder reward is reduced to \$3,517,531 after the adjustment of \$96,116 associated with the Kingsgate mismatch from CPIM Year 23 and Year 24. The GTN Kingsgate mismatch adjustment is due to an outdated formula used in the last two CPIMs to calculate the CTAs capacities. PG&E revised and corrected the formula in CPIM Year 25.<sup>13</sup>

## 1.9 Conclusion

Based on the foregoing, Cal Advocates recommends a shareholder reward in the amount of \$3,517,531 for CPIM Year 25 to be recovered through PG&E's

<sup>13</sup> See PG&E June 16, 2020 Response to Cal Advocates Date Request A.96-08-04\_CPIM Year 25\_02\_Q01 issued June 3, 2020.

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.

**CHAPTER 2**  
**MONITORING AND EVALUATION AUDIT**  
**YEAR 25**

**2.1 Cal Advocates' CPIM Reward Evaluation**

PG&E filed CPIM Performance Report, Year 25 Application (A.96-08-043), which reports on natural gas procurement results for the period from November 1, 2017 through October 31, 2018. 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 filing 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.<sup>14</sup> 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;

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<sup>14</sup> 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.

and d) Hedging costs which included 80% of net realized gains or losses and 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 25 performance as set forth in Table 2-1 shows total benchmark costs of \$708,877,020 and PG&E's total actual costs of \$686,197,729. The difference between the total benchmark costs and PG&E's total actual costs results in a total of \$22,679,291 in natural gas procurement savings. The ratepayer savings amount to \$19,065,644 based on \$4,611,054 of savings through the lower tolerance band and \$14,454,590 of shared savings. The shareholder reward is \$3,517,531 based on \$3,613,647 in shared savings and an adjustment of \$96,116. 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 25**  
**November 1, 2017 Through October 31, 2018**

<b>CPIM Reward Calculation</b>	
Total Benchmark Costs	\$ 708,877,020
Total Actual Costs	<u>686,197,729</u>
Under/(Over)	22,679,291
Upper Tolerance Band (Benchmark + 2% of Commodity Cost)	718,099,129
Lower Tolerance Band (Benchmark - 1% of Commodity Cost)	704,265,966
Add Amount of Lower Tolerance Band (Not Subject to Share: 0%-1%)	\$ 4,611,054
Lower Tolerance Band Less Actual Commodity Cost (Subject to Share)	18,068,237
Ratepayer Shared Savings (80%)	14,454,590
Shareholder Shared Savings (20%)	<u>3,613,647</u>
	<u>\$ 18,068,237</u>
Shareholder Shared Savings	\$ 3,613,647
GTN Kingsgate Adjustments from Year 23 & Year 24	<u>(96,116)</u>
CPIM Year 25 Shareholder Award	<u>\$ 3,517,531</u>

## 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 is 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 provides a detailed review and breakdown of these related costs.

In CPIM Year 25, PG&E received refunds from GTN.<sup>15</sup> The rate credit is adjusted in both actual and benchmark calculation and does not impact any savings and rewards.

On April 3, 2018, Cal Advocates and PG&E’s Core Gas Supply (CGS) signed a Memorandum of Understanding (MOU) to incorporate the United States Customs and Border Protection’s Merchandise Processing Fee (MPF) into the Benchmark calculation.<sup>16</sup> The MPF is the fee associated with Canadian gas purchases.

	<b>Actual</b>	<b>Benchmark</b>	<b>Difference</b>
Purchased Natural Gas Cost	\$ 573,624,592	\$ 454,061,634	\$ (119,562,958)
Volumetric Transportation Costs	\$ 25,770,104		\$ (25,770,104)
Natural Gas Sales	\$ (165,077,586)		\$ 165,077,586
Other Costs and Revenues	\$ (4,353,841)		\$ 4,353,841
Hedge Cost	\$ 8,622,242	\$ 6,897,794	\$ (1,724,448)
Reservation Charges	\$ 249,256,664	\$ 249,562,038	\$ 305,374
Custom and Border Protection Fee	\$ 146,000	\$ 146,000	\$ -
GTN Rate Refund Adjustment	\$ (1,790,446)	\$ (1,790,446)	\$ -
<b>Total Commodity Cost</b>	<b>\$ 686,197,729</b>	<b>\$ 708,877,020</b>	<b>\$ 22,679,291</b>

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

### **2.3 Review of Benchmark Commodity and Reservation (Demand) Charges**

The total benchmark commodity costs consists of three main components, purchased gas costs, reservation costs, and other costs. Table 2-3 shows a breakdown for total benchmark commodity costs. Cal Advocates confirmed the total benchmark

<sup>15</sup> On December 17, 2018, the Federal Energy Regulatory Commission (FERC) approved GTN’s Settlement in RP15-904-001. The refunded amount was calculated by Rate Credit Party’s pro rate share of the reservation charges.

<sup>16</sup> On April 3, 2018, the Cal Advocates and PG&E’s CGS signed an MOU to include MPF costs in the CPIM actual and benchmark costs. For CPIM Year 24, the calculation of MPF costs covers: 1) the fee for CPIM Year 19 – Year 22 in both the actual and benchmark costs; and 2) a fee adjustment for the CPIM Year 23 benchmark costs which is due to MPF costs already included in CPIM Year 23 actual costs, not benchmark costs.

gas costs of \$454,061,634, the other costs of \$5,253,348 and total benchmark reservation charges of \$249,562,038.

<b>TABLE 2-3</b> <b>Benchmark Commodity Costs and Reservation Charges</b> <b>CPIM Year 25</b> <b>November 1, 2017 Through October 31, 2018</b>		
	Market	
<b>Benchmark Purchased Gas Costs - by Pipelines:</b>	<b>Benchmark</b>	<b>*Reference</b>
Ruby Rockies	\$ 146,301,594	
AECO	\$ 137,158,350	
San Juan	\$ 73,715,991	
Kingsgate	\$ 1,170,595	
Topock	\$ 36,142,985	
PG&E Citygate	\$ 59,572,119	
<b>Total Benchmark Gas Costs:</b>	<b>\$ 454,061,634</b>	2-14
<b>Other Costs</b>		
80% of Winter Hedging Cost	\$ 6,897,794	2-15
MPF	\$ 146,000	2-19
GTN Refund	\$ (1,790,446)	
<b>Total Other Costs</b>	<b>\$ 5,253,348</b>	
<b>Benchmark Reservation Charges:</b>		
Foothills Pipelines Ltd	\$ 6,550,230	2-8
Nova Gas Transmission Ltd	\$ 14,380,264	2-8
Gas Transmission Northwest Corp	\$ 30,559,912	2-8
El Paso Natural Gas Company	\$ 492,118	2-8
Ruby Pipeline	\$ 49,044,358	2-8
Transwestern Pipeline Company	\$ 6,757,442	2-8
California Gas Transmission	\$ 76,846,867	2-8
Storage	\$ 64,930,847	2-13
<b>Total Benchmark Reservation Charges:</b>	<b>\$ 249,562,038</b>	
<b>Total Benchmark Commodity Costs:</b>	<b>\$ 708,877,020</b>	

\*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 Year 25, 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, El Paso Natural Gas Company, Ruby Pipeline LLC, Foothills Pipe Line Ltd., Nova Gas Transmission, Ltd., Gas Transmission Northwest Corporation, and Transwestern Pipeline Company.<sup>17</sup>

PG&E's net total actual commodity costs are \$686,197,729, which include interstate and intrastate purchased gas costs of \$434,317,110, other costs of \$2,623,955, and reservation charges of \$249,256,664.

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<sup>17</sup> PG&E Annual Performance Report, CPIM Year 25, page 11.

**TABLE 2-4**  
**Summary of Actual Commodity Costs & Reservation Charges**  
**CPIM Year 25**  
**November 1, 2017 Through October 31, 2018**

<b>Actual Purchased Gas Costs - by Pipeline:</b>	<b>Actual Costs</b>	<b>*Reference</b>
CGT - Citygate	\$ 72,064,673	2-5
CGT	\$ 101,680,950	2-5
El Paso	\$ 8,187,092	2-5
GTN	\$ 28,566,771	2-5
Kern	\$ 435,479	2-5
Nova	\$ 129,417,146	2-5
Ruby	\$ 94,527,532	2-5
TW	\$ 138,744,949	2-5
Volumetric Transportation Cost	\$ 25,770,104	2-6
Gas Sale	\$ (165,077,586)	2-7
<b>Total Purchased Gas Costs:</b>	<b>\$ 434,317,110</b>	
<b>Other Costs:</b>		
100% Winter Hedging Cost	\$ 8,622,242	2-10
MPF	\$ 146,000	2-20
Miscellaneous Costs & Revenues	\$ (4,353,841)	2-9
GTN Refund	\$ (1,790,446)	
<b>Total Other Costs:</b>	<b>\$ 2,623,955</b>	
<b>Actual Reservation Charges:</b>		
Foothills Pipelines Ltd	\$ 6,550,230	2-8
Nova Gas Transmission Ltd	\$ 14,380,264	2-8
Gas Transmission Northwest Corp	\$ 30,559,912	2-8
El Paso Natural Gas Company	\$ 492,118	2-8
Ruby Pipeline	\$ 49,044,358	2-8
Transwestern Pipeline Company	\$ 6,757,442	2-8
California Gas Transmission	\$ 76,846,867	2-8
Storage Costs	\$ 64,930,847	2-13
Discount Demand Charges	\$ (305,374)	2-11
Capacity Release Revenue	\$ -	2-12
<b>Total Reservation Charges:</b>	<b>\$ 249,256,664</b>	
<b>Net Actual Commodity Costs:</b>	<b>\$ 686,197,729</b>	

\*Source: See Cal Advocates CPIM Report, Exhibits.

## 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 in order to meet interstate and intrastate pipeline tolerances, balancing rules, and most importantly, conservation of gas for storage and peak requirements.<sup>18</sup>

For the benchmark, the storage cost component includes volumetric storage charges as well as storage reservation costs at the as-billed rate for: a) 33.5 MMdth of annual inventory, b) 115 to 207 Mdth per day of summer injection, and c) 720 to 1,355 Mdth per day of winter withdrawal capacity, which is adjusted for core aggregation elections.<sup>19</sup>

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, 2017 at 28,887,345 MMBtus and ending inventory as of October 31, 2018 at 28,407,621 MMBtus.

<b>TABLE 2-5</b> <b>Pacific Gas and Electric Company</b> <b>Summary of Storage Inventory Injections and Withdrawals</b> <b>CPIM Year 25</b> <b>November 1, 2017 Through October 31, 2018</b>		
<b>Gas Storage Providers</b>	<b>Beginning Inventory 11/01/17 (MMBtus)</b>	<b>Ending Inventory 10/31/18 (MMBtus)</b>
Firm Storage CGT	27,887,345	28,257,621
Incremental Storage	1,000,000	150,000
<b>Total Storage Inventory</b>	<b>28,887,345</b>	<b>28,407,621</b>

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

## 2.6 Review of Purchase Gas Account (PGA)

<sup>18</sup> See PG&E Annual Performance Report, Year 25, p.13-14.

<sup>19</sup> Id., p.13.

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.<sup>20</sup>

As part of the PGA audit, Cal Advocates selected three months in the CPIM period, December 2017, January 2018, and August 2018, 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.

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<sup>20</sup> See PG&E February 14, 2020 Response to Cal Advocates Date Request A.96-08-04\_CPIM Year 25\_01\_Q06 issued January 16, 2020.

**TABLE 2-6**  
**Pacific Gas and Electric Company**  
**Purchase Gas Account Review**  
**CPIM Year 25**

**November 1, 2017 through October 31, 2018**

<b>CPIM Purchase Costs</b>	<b>Commodity Purchases</b>	<b>Volumetric Transportation</b>	<b>Subtract True-up</b>	<b>Add True-up</b>	<b>Total CPIM</b>
CPIM Costs:					
Purchases and Sales:	\$ 408,547,002	\$ 25,763,813			\$ 434,310,815
Cochrane Extraction Rev	\$ (5,099,483)				\$ (5,099,483)
<b>SubTotal</b>	<b>\$ 403,447,519</b>	<b>\$ 25,763,813</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 429,211,332</b>
Misc. Revenues and Expenses	\$ 197,476				\$ 197,476
<b>Total</b>	<b>\$ 403,644,995</b>	<b>\$ 25,763,813</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 429,408,808</b>
SAP Journal Entries:					
SAP Total	\$ 413,465,919	\$ 26,136,865	\$ (52,291,144)	\$ 42,101,348	\$ 429,412,988
Prior Period Adjustment	\$ -	\$ -			\$ -
Costs Included in CPDCA	\$ (1,604)	\$ -			\$ (1,604)
Time Difference	\$ 18,578	\$ -			\$ 18,578
El Paso Refund	\$ -	\$ (21,453)			\$ (21,453)
Adjustment Error	\$ 299				\$ 299
<b>Total PGA</b>	<b>\$ 413,483,192</b>	<b>\$ 26,115,412</b>	<b>\$ (52,291,144)</b>	<b>\$ 42,101,348</b>	<b>\$ 429,408,808</b>
<b>Timing Difference</b>	<b>\$ (9,838,197)</b>	<b>\$ (351,599)</b>	<b>\$ 52,291,144</b>	<b>\$ (42,101,348)</b>	<b>\$ -</b>

## 2.7 Review of Core Pipeline Demand Charge Account (CPDCA)

As part of the CPIM Year 25 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 \$249,260,708.<sup>21</sup>

Cal Advocates' audit showed the CPIM demand costs were \$249,260,709 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.

<sup>21</sup> See PG&E February 14, 2020 Response to Cal Advocates Date Request A.96-08-04\_CPIM Year 25\_01\_Q07 issued January 16, 2020.

**TABLE 2-7**  
**Pacific Gas and Electric Company**  
**CPDCA and CFSA Accounts Review**  
**CPIM Year 25**  
**November 1, 2017 through October 31, 2018**

CPIM Demand Costs	Demand Charges	Subtract True-up	Add True-up	Total CPIM
Foothills Pipe Lines Ltd	\$ 6,550,229			\$ 6,550,229
California Gas Transmission	\$ 76,846,866			\$ 76,846,866
Firm Storage Costs	\$ 64,159,242			\$ 64,159,242
El Pas Natural Gas	\$ 447,305			\$ 447,305
Ruby Pipeline	\$ 49,044,358			\$ 49,044,358
Third Party Gas Storage	\$ 771,605			\$ 771,605
NOVA Gas Transmission	\$ 14,384,308			\$ 14,384,308
Gas Transmission	\$ 30,529,632			\$ 30,529,632
Transwestern Pipeline Company	\$ 6,527,164			\$ 6,527,164
<b>Total Demand Charges:</b>	<b>\$ 249,260,709</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 249,260,709</b>
SAP Journal Entries				
SAP Total	\$ 249,870,574	\$ (23,894,791)	\$ 23,584,896	\$ 249,560,679
Reservation Discount	\$ (306,135)			\$ (306,135)
Exchange Rate Variance	\$ 6,810			\$ 6,810
Costs Classified In PGA	\$ 1,604			\$ 1,604
Accounting Adj.	\$ (2,250)			\$ (2,250)
<b>Total CPDCA:</b>	<b>\$ 249,570,603</b>	<b>\$ (23,894,791)</b>	<b>\$ 23,584,896</b>	<b>\$ 249,260,708</b>
<b>Timing Difference:</b>	<b>\$ (309,894)</b>	<b>\$ 23,894,791</b>	<b>\$ (23,584,896)</b>	<b>\$ 1</b>

## 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 \$4,353,841. This amount consists of cochrane extraction revenue of \$5,099,483, non-winter hedge cost and revenues of \$514,910, and miscellaneous costs and revenues of \$230,732.

**TABLE 2-8**  
**Pacific Gas and Electric Company**  
**Miscellaneous Costs and Revenues**  
**CPIM Year 25**  
**November 1, 2017 through October 31, 2018**

Month	Cochrane Extraction Revenue	Non-Winter Hedge Cost and Revenues	Miscellaneous Costs and Revenues	Total
Nov-17	\$ (479,239)	\$ 73,838	\$ 17,078	\$ (388,323)
Dec-17	\$ (516,191)	\$ 6,200	\$ 17,681	\$ (492,310)
Jan-18	\$ (490,267)	\$ (83,700)	\$ 16,929	\$ (557,038)
Feb-18	\$ (399,406)	\$ 13,160	\$ 15,806	\$ (370,440)
Mar-18	\$ (319,614)	\$ 515,375	\$ 16,836	\$ 212,597
Apr-18	\$ (338,830)	\$ -	\$ 13,988	\$ (324,842)
May-18	\$ (431,348)	\$ (49,096)	\$ 17,708	\$ (462,736)
Jun-18	\$ (387,432)	\$ 306,338	\$ 26,454	\$ (54,640)
Jul-18	\$ (435,192)	\$ 191,703	\$ 19,881	\$ (223,608)
Aug-18	\$ (434,569)	\$ (2,725,776)	\$ 28,062	\$ (3,132,283)
Sep-18	\$ (468,499)	\$ 710,288	\$ 19,935	\$ 261,724
Oct-18	\$ (398,896)	\$ 1,556,580	\$ 20,374	\$ 1,178,058
<b>Total</b>	<b>\$ (5,099,483)</b>	<b>\$ 514,910</b>	<b>\$ 230,732</b>	<b>\$ (4,353,841)</b>

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 2017-2018 are summarized in Table 2-9.

PG&E reported \$8,622,242 in CPIM Year 25 for actual winter hedging costs. The total option premiums costs are \$8,610,405 and commission and fees are \$11,837.

<p><b>Table 2-9</b>  <b>Pacific Gas and Electric Company</b>  <b>Winter Hedge Costs</b>  <b>CPIM Year 25</b>  <b>November 1, 2017 - October 31, 2018</b></p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	Option Premiums	Option and Swap Settlements	Commissions and Fees	Winter Hedge Cost Total
<b>Nov-17</b>	\$ -	\$ -	\$ -	\$ -
<b>Dec-17</b>	\$ 2,965,806	\$ -	\$ 4,077	\$ 2,969,883
<b>Jan-18</b>	\$ 2,965,806	\$ -	\$ 4,077	\$ 2,969,883
<b>Feb-18</b>	\$ 2,678,793	\$ -	\$ 3,683	\$ 2,682,476
<b>Mar-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Apr-18</b>	\$ -	\$ -	\$ -	\$ -
<b>May-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Jun-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Jul-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Aug-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Sep-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Oct-18</b>	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ 8,610,405	\$ -	\$ 11,837	\$ 8,622,242

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 \$165,077,586, and total reported volume of 57,226,473 MMBtus. A breakdown by pipeline shows sales for CGT Citygate of \$114,839,347, CGT-All of \$1,649,412, EPNG of \$3,347,979, GTN of \$4,857,751, Kern River of \$4,924,643, Nova of \$1,831,592, Ruby of \$6,217,490, TW of \$11,107,404, and Williams Field Service(WFS) of \$16,301,968.

The same period shows sales volumes for CGT Citygate of 37,088,060 MMBtus, CGT-All of 60,135 MMBtus, EPNG of 1,231,606 MMBtus, GTN of 1,749,502 MMBtus, Kern River of 2,039,519 MMBtus, Nova of 1,730,715 MMBtus, Ruby of 2,179,452 MMBtus, TW of 3,946,605 MMBtus, and WFS of 6,610,879 MMBtus.



**Table 2-10**  
**Pacific Gas and Electric Company**  
**Gas Sales and Volumes**  
**CPIM Year 25**  
**November 1, 2017 through October 31, 2018**

<b>Sale by Pipeline:</b>	<b>Volume (MMBtus)</b>	<b>Dollars</b>
CGT Citygate	(37,088,060)	(114,839,347)
CGT - All	(650,135)	(1,649,412)
EPNG	(1,231,606)	(3,347,979)
GTN	(1,749,502)	(4,857,751)
Kern	(2,039,519)	(4,924,643)
Nova	(1,730,715)	(1,831,592)
Ruby	(2,179,452)	(6,217,490)
TW	(3,946,605)	(11,107,404)
WFS	(6,610,879)	(16,301,968)
<b>Total:</b>	<b>(57,226,473)</b>	<b>\$ (165,077,586)</b>
*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 \$25,770,104. In addition, costs were broken down by pipeline to identify changes: PG&E CGT \$21,294,199, EPNG \$44,054, GTN \$1,126,719, Kern \$4,506, Ruby Pipeline \$2,755,719, Transwestern \$399,307, Transcanada \$4,134, and WFS \$141,466. These costs are included in the CPIM and are part of the reconciliation of the PGA balancing account.

<p><b>TABLE 2-11</b>  <b>Pacific Gas and Electric Company</b>  <b>Commodity Volumetric Transport Costs</b>  <b>CPIM Year 25</b>  <b>November 1, 2017 through October 31, 2018</b></p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Pipeline	Costs	*Reference
PG&E CGT	\$ 21,294,199	
EPNG	\$ 44,054	
GTN	\$ 1,126,719	
Kern	\$ 4,506	
Ruby Pipeline	\$ 2,755,719	
Transwestern	\$ 399,307	
Transcanada	\$ 4,134	
WFS	\$ 141,466	
<b>Total Volumetric Transport Costs:</b>	<b>\$ 25,770,104</b>	2-6

\*Source: See Cal Advocates CPIM Report, Exhibits.

**2.12 Review of Reservation Charges**

To identify any variances, Cal Advocates completed 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 \$249,256,664 which included demand charges of \$184,631,191, adjustments of discounted demand charges of \$305,374, and storage cost of \$64,930,847.

**TABLE 2-12**  
**Pacific Gas and Electric Company**  
**Reconciliation of Reservation Charges**  
**CPIM Year 25**  
**November 1, 2017 through October 31, 2018**

<b>Actual Demand Charges by Pipeline System:</b>		<b>Benchmark Demand Charges:</b>
<u>Canadian</u>		<b>\$ 184,631,191</b>
Foothills Pipelines Ltd.	6,550,230	
Nova Gas Transmission Ltd.	14,380,264	
	<b>Canadian Subtotal \$ 20,930,494</b>	
<u>Interstate</u>		
Gas Transmission Northwest Corporation	30,559,912	
El Paso Natural Gas Company	492,118	
Ruby Pipeline	49,044,358	
Transwestern Pipeline Company	6,757,442	
	<b>Interstate Subtotal \$ 86,853,830</b>	
<u>Intrastate</u>		
California Gas Transmission	76,846,867	
	<b>Intrastate Subtotal \$ 76,846,867</b>	
	<b>Total Actual Demand Charges: \$ 184,631,191</b>	<b>\$ 184,631,191</b>
 <b>Discount Demand Charges:</b>		
El Paso Natural Gas Company	(44,813)	
Transwesten Pipeline Company	(230,278)	
Gas Transmission Northwest LLC	(30,283)	
	<b>Demand Charge Discount Subtotal: \$ (305,374)</b>	<b>\$ -</b>
 <b>Capacity Release Revenue:</b>		
	<b>Total Capacity Release Revenue: \$ -</b>	<b>\$ -</b>
 <b>Storage Cost:</b>		
California Gas Transmission Firm Storage	64,159,242	
Other Storage Costs	771,605	
	<b>Storage Cost Subtotal: \$ 64,930,847</b>	<b>\$ 64,930,847</b>
	<b>Reconciliation of Reservation Charges: \$ 249,256,664</b>	<b>\$ 249,562,038</b>

## 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 \$249,562,038, which consisted of Canadian pipeline demand charges of \$20,930,494, U.S. interstate pipeline reservation costs of \$86,853,830, California intrastate pipeline costs of \$76,846,867, and storage costs of \$64,930,847. Table 2-14 provides a summary of these costs.

**TABLE 2-14**  
**Pacific Gas and Electric Company**  
**Summary of Fixed Transport and Storage Costs**  
**CPIM Year 25**  
**November 1, 2017 through October 31, 2018**

<b>Benchmark Demand Charges</b>	
<u>Canadian</u>	
Foothills Pipelines Ltd.	6,550,230
Nova Gas Transmission Ltd.	14,380,264
Canadian Subtotal	<u>\$ 20,930,494</u>
<u>Interstate</u>	
Gas Transmission Northwest Corporation	30,559,912
El Paso Natural Gas Company	492,118
Ruby Pipeline	49,044,358
Transwestern Pipeline Company	6,757,442
Interstate Subtotal	<u>86,853,830</u>
<u>Intrastate</u>	
California Gas Transmission	76,846,867
Intrastate Subtotal	<u>\$ 76,846,867</u>
Total Demand Charges	<u>\$ 184,631,191</u>
 <b>CA Intrastate Storage Costs:</b>	
California Gas Transmission Firm Storage	64,159,242
Other Storage Costs	771,605
Total Storage Costs	<u>\$ 64,930,847</u>
<b>Total Transportation &amp; Storage Costs:</b>	<u><u>\$ 249,562,038</u></u>

## 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 25, 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.<sup>22</sup>

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

<sup>22</sup> PG&E Annual Performance Report, CPIM Year 25, page 18.

recover associated costs. Pursuant to D.07-07-002, PG&E can also allocate firm 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.

<b>Table 2-15</b> <b>Pacific Gas and Electric Company</b> <b>Core Gas Supply - Utilization of Interstate, Intrastate and Canadian Pipeline Assets</b> <b>CPIM Year 25</b> <b>November 1, 2017 through October 31, 2018</b>
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Pipeline Capacity:	Quantity (Dth/d)	Contract Expiration Date	Utilization Rate
<b>TransCanada Pipelines:</b>			
NGTL	287,745	10/31/2020	
	82,223	10/31/2020	
<b>Total NOVA:</b>	369,968		99%
Foothills-BC System	284,810	10/31/2020	
	81,384	10/31/2020	
<b>Total Foothills-BC System:</b>	366,194		99%
<b>Interstate Pipelines:</b>			
Gas Transmission Northwest	279,968	10/31/2020	
	80,000	10/31/2020	
<b>Total Gas Transmission Northwest:</b>	359,968		99%
El Paso Natural Gas	25,000	3/31/2018	
<b>Total El Paso Natural Gas:</b>	25,000		88%
Transwestern Pipeline Co.	50,000	3/31/2018	
	190,000	3/31/2018	
<b>Total TW:</b>	Varies		92%
Ruby			
<b>Total Ruby:</b>	250,000	10/31/2026	86%
<b>PG&amp;E Core Gas Supply- Intrastate Pipelines:</b>			
Redwood Path	605,088	12/31/2018	98%
<b>Total Redwood:</b>	605,088		
Baja Path	182,000	12/13/2018	
Seasonal (Nov.-Mar.)	157,000	19/31/2018	
<b>Total Baja:</b>	Varies		95%

## **Exhibits**

2-1  
Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
CPIM Calculation

	Interstate and Intrastate Gas Purchase		Pipeline Reservation Charge		CPIM Performance					
	Actual Commodity	Benchmark Commodity	Actual Reservation Charge	Benchmark Reservation Charges	Total Actual Costs	Total Benchmark Costs	Benchmark Less Actuals	Upper Limit (2%)	Lower Limit (1%)	(Over)/Under Tolerance Band
Nov-17	\$ 42,042,792	\$ 43,647,637	\$ 22,405,299	\$ 22,455,267	\$ 64,448,091	\$ 66,102,904	\$ 1,654,813	\$ 66,975,857	\$ 65,666,428	\$ 1,218,337
Dec-17	\$ 72,332,907	\$ 73,846,661	\$ 22,555,103	\$ 22,604,196	\$ 94,888,010	\$ 96,450,857	\$ 1,562,847	\$ 97,927,790	\$ 95,712,390	\$ 824,380
Jan-18	\$ 51,460,129	\$ 57,314,617	\$ 23,085,439	\$ 23,133,478	\$ 74,545,568	\$ 80,448,095	\$ 5,902,527	\$ 81,594,387	\$ 79,874,949	\$ 5,329,381
Feb-18	\$ 69,262,358	\$ 67,609,541	\$ 22,655,129	\$ 22,699,393	\$ 91,917,487	\$ 90,308,934	\$ (1,608,553)	\$ 91,661,125	\$ 89,632,839	\$ (2,284,648)
Mar-18	\$ 54,959,400	\$ 51,704,546	\$ 22,023,800	\$ 22,075,955	\$ 76,983,200	\$ 73,780,501	\$ (3,202,699)	\$ 74,814,592	\$ 73,263,456	\$ (3,719,744)
Apr-18	\$ 36,032,166	\$ 39,609,791	\$ 19,476,317	\$ 19,485,167	\$ 55,508,483	\$ 59,094,958	\$ 3,586,475	\$ 59,887,154	\$ 58,698,860	\$ 3,190,377
May-18	\$ 22,224,215	\$ 24,494,463	\$ 19,572,067	\$ 19,581,212	\$ 41,796,282	\$ 44,075,675	\$ 2,279,393	\$ 44,565,564	\$ 43,830,730	\$ 2,034,448
Jun-18	\$ 18,161,283	\$ 19,572,780	\$ 19,442,737	\$ 19,451,587	\$ 37,604,020	\$ 39,024,367	\$ 1,420,347	\$ 39,415,823	\$ 38,828,639	\$ 1,224,619
Jul-18	\$ 19,651,966	\$ 23,030,619	\$ 19,501,519	\$ 19,510,639	\$ 39,153,485	\$ 42,541,258	\$ 3,387,773	\$ 43,001,870	\$ 42,310,952	\$ 3,157,467
Aug-18	\$ 21,014,216	\$ 24,109,110	\$ 19,549,068	\$ 19,558,833	\$ 40,563,284	\$ 43,667,943	\$ 3,104,659	\$ 44,150,125	\$ 43,426,852	\$ 2,863,568
Sep-18	\$ 12,115,912	\$ 14,851,140	\$ 19,458,966	\$ 19,468,417	\$ 31,574,878	\$ 34,319,557	\$ 2,744,679	\$ 34,616,580	\$ 34,171,046	\$ 2,596,168
Oct-18	\$ 19,474,167	\$ 21,314,523	\$ 19,531,220	\$ 19,537,894	\$ 39,005,387	\$ 40,852,417	\$ 1,847,030	\$ 41,278,707	\$ 40,639,272	\$ 1,633,885
<b>Total</b>	<b>\$ 438,731,511</b>	<b>\$ 461,105,428</b>	<b>\$ 249,256,664</b>	<b>\$ 249,562,038</b>	<b>\$ 687,988,175</b>	<b>\$ 710,667,466</b>	<b>\$ 22,679,291</b>	<b>\$ 719,889,575</b>	<b>\$ 706,056,412</b>	<b>\$ 18,068,237</b>
									Shareholder Award	\$ 3,613,647
GTN Refund Jan 18-Oct 18			(1,790,446)	(1,790,446)	(1,790,446)	(1,790,446)		(1,790,446)	(1,790,446)	-
	\$ 438,731,511	\$ 461,105,428	\$ 247,466,218	\$ 247,771,592	\$ 686,197,729	\$ 708,877,020	\$ 22,679,291	\$ 718,099,129	\$ 704,265,966	\$ 18,068,237
GTN Kingsgate Mismatch Adj.										
Year 23		(99,630)				(99,630)	(99,630)			(19,727)
Year 24		(385,804)				(385,804)	(385,804)			(76,389)
										(96,116)
									Shareholder Award	\$ 3,517,531



2-1a  
Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
CPIM Costs/Savings

Benchmark Costs	\$	708,877,020
Actual Costs	\$	686,197,729
CPIM Saving	\$	22,679,291
Lower Tolerance Band (1%)	\$	704,265,966
Amount for Lower Tolerance Band Not Subject to Sharing (0% - 1%)	\$	18,068,237
Amount for Subject to 80% - 20% Sharing (1% - 5%)	\$	18,068,237
Ratepayers' Share: 80%	\$	14,454,589
Shareholders' Share: 20%	\$	3,613,647
Total Shareholder Reward	\$	3,613,647
Total Ratepayer Saving	\$	19,065,644
CPIM Saving	\$	22,679,291
Total Shareholder Reward	\$	3,613,647
Adjusted from Kingsgate from Yr 23 and Yr 24	\$	(96,116)
<b>Total Shareholder Reward For Yr 25</b>	<b>\$</b>	<b>3,517,531</b>

Pacific Gas and Electric Company  
 CPIM Year 25  
 November 1, 2017 - October 31, 2018

CPIM Performance

	Actual		Benchmark		Under/Over
Commodity Costs	\$ 573,624,592	\$	454,061,634	\$	(119,562,958)
Volumetric Transportation Costs	\$ 25,770,104	\$	-	\$	(25,770,104)
Commodity Sales	\$ (165,077,586)	\$	-	\$	165,077,586
Total Gas Purchase Costs	\$ 434,317,110	\$	454,061,634	\$	19,744,524
Other Costs and Revenues	\$ (4,353,841)	\$	-	\$	4,353,841
Winter Hedging Costs	\$ 8,622,242	\$	6,897,794	\$	(1,724,448)
Customs & Border Protection					
Merchandise Processing Fee	\$ 146,000	\$	146,000	\$	-
Total Commodity Costs	\$ 438,731,511	\$	461,105,428	\$	22,373,917
Demand Charges	\$ 184,631,191	\$	184,631,191	\$	-
Discount Demand Charges	\$ (305,374)	\$	-	\$	305,374
Capacity Release Revenues	\$ -	\$	-	\$	-
Firm Storage Costs	\$ 64,930,847	\$	64,930,847	\$	-
Total Reservation Costs	\$ 249,256,664	\$	249,562,038	\$	305,374
GTN Refund	\$ (1,790,446)	\$	(1,790,446)	\$	-
Total	\$ 686,197,729	\$	708,877,020	\$	22,679,291

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Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
Monthly Actual Costs

	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Total
Commodity Costs	\$ 58,195,911	\$ 74,359,137	\$ 68,711,974	\$ 73,011,584	\$ 59,664,472	\$ 36,374,193	\$ 29,132,686	\$ 29,570,056	\$ 36,042,392	\$ 40,418,268	\$ 31,852,399	\$ 36,291,520	\$ 573,624,592
Volumetric Transportation Costs	\$ 2,254,356	\$ 2,262,990	\$ 1,980,366	\$ 2,383,874	\$ 2,632,594	\$ 2,051,591	\$ 2,062,183	\$ 1,831,590	\$ 2,109,759	\$ 2,134,036	\$ 2,016,759	\$ 2,050,006	\$ 25,770,104
Commodity Sales	\$ (18,031,152)	\$ (6,779,193)	\$ (21,657,456)	\$ (8,456,336)	\$ (7,562,663)	\$ (2,080,776)	\$ (8,520,318)	\$ (13,197,723)	\$ (18,288,977)	\$ (18,418,205)	\$ (22,026,970)	\$ (20,057,817)	\$ (165,077,586)
Total Gas Purchase Costs	\$ 42,419,115	\$ 69,842,934	\$ 49,034,884	\$ 66,939,122	\$ 54,734,403	\$ 36,345,008	\$ 22,674,551	\$ 18,203,923	\$ 19,863,174	\$ 24,134,099	\$ 11,842,188	\$ 18,283,709	\$ 434,317,110
Other Costs and Revenues	\$ (388,323)	\$ (492,310)	\$ (557,038)	\$ (370,440)	\$ 212,597	\$ (324,842)	\$ (462,736)	\$ (54,640)	\$ (223,608)	\$ (3,132,283)	\$ 261,724	\$ 1,178,058	\$ (4,353,841)
100% Winter Hedging Costs	\$ -	\$ 2,969,883	\$ 2,969,883	\$ 2,682,476	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,622,242
Custom and Border Protection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marchandise Processing Fee	\$ 12,000	\$ 12,400	\$ 12,400	\$ 11,200	\$ 12,400	\$ 12,000	\$ 12,400	\$ 12,000	\$ 12,400	\$ 12,400	\$ 12,000	\$ 12,400	\$ 146,000
Total Commodity Costs	\$ 42,042,792	\$ 72,332,907	\$ 51,460,129	\$ 69,262,358	\$ 54,959,400	\$ 36,032,166	\$ 22,224,215	\$ 18,161,283	\$ 19,651,966	\$ 21,014,216	\$ 12,115,912	\$ 19,474,167	\$ 438,731,511
Demand Charges	\$ 17,108,871	\$ 17,257,800	\$ 17,639,500	\$ 17,205,415	\$ 16,748,647	\$ 14,082,293	\$ 14,178,338	\$ 14,048,713	\$ 14,107,765	\$ 14,120,984	\$ 14,031,694	\$ 14,101,171	\$ 184,631,191
Discount Demand Charges	\$ (49,968)	\$ (49,093)	\$ (48,039)	\$ (44,264)	\$ (52,155)	\$ (8,850)	\$ (9,145)	\$ (8,850)	\$ (9,120)	\$ (9,765)	\$ (9,451)	\$ (6,674)	\$ (305,374)
Capacity Release Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Firm Storage Costs	\$ 5,346,396	\$ 5,346,396	\$ 5,493,978	\$ 5,493,978	\$ 5,327,308	\$ 5,402,874	\$ 5,402,874	\$ 5,402,874	\$ 5,402,874	\$ 5,437,849	\$ 5,436,723	\$ 5,436,723	\$ 64,930,847
Total Reservation Costs	\$ 22,405,299	\$ 22,555,103	\$ 23,085,439	\$ 22,655,129	\$ 22,023,800	\$ 19,476,317	\$ 19,572,067	\$ 19,442,737	\$ 19,501,519	\$ 19,549,068	\$ 19,458,966	\$ 19,531,220	\$ 249,256,664
Actual Costs	\$ 64,448,091	\$ 94,888,010	\$ 74,545,568	\$ 91,917,487	\$ 76,983,200	\$ 55,508,483	\$ 41,796,282	\$ 37,604,020	\$ 39,153,485	\$ 40,563,284	\$ 31,574,878	\$ 39,005,387	\$ 687,988,175

Pacific Gas and Electric Company  
CPIM Year 25

November 1, 2017 - October 31, 2018

Monthly Benchmark Costs

	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Total
Commodity Cost	\$ 43,635,637	\$ 71,458,354	\$ 54,926,310	\$ 65,452,361	\$ 51,692,146	\$ 39,597,791	\$ 24,482,063	\$ 19,560,780	\$ 23,018,219	\$ 24,096,710	\$ 14,839,140	\$ 21,302,123	\$ 454,061,634
Volumetric Transportation Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Gas Purchase Cost	\$ 43,635,637	\$ 71,458,354	\$ 54,926,310	\$ 65,452,361	\$ 51,692,146	\$ 39,597,791	\$ 24,482,063	\$ 19,560,780	\$ 23,018,219	\$ 24,096,710	\$ 14,839,140	\$ 21,302,123	\$ 454,061,634
Other Costs and Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
100% Winter Hedging Cost	\$ -	\$ 2,375,907	\$ 2,375,907	\$ 2,145,980	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,897,794
Custom and Border Protection													
Merchandise Processing Fee	\$ 12,000	\$ 12,400	\$ 12,400	\$ 11,200	\$ 12,400	\$ 12,000	\$ 12,400	\$ 12,000	\$ 12,400	\$ 12,400	\$ 12,000	\$ 12,400	\$ 146,000
Total Commodity Cost	\$ 43,647,637	\$ 73,846,661	\$ 57,314,617	\$ 67,609,541	\$ 51,704,546	\$ 39,609,791	\$ 24,494,463	\$ 19,572,780	\$ 23,030,619	\$ 24,109,110	\$ 14,851,140	\$ 21,314,523	\$ 461,105,428
Demand Charge	\$ 17,108,871	\$ 17,257,800	\$ 17,639,500	\$ 17,205,415	\$ 16,748,647	\$ 14,082,293	\$ 14,178,338	\$ 14,048,713	\$ 14,107,765	\$ 14,120,984	\$ 14,031,694	\$ 14,101,171	\$ 184,631,191
Discount Demand Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capacity Release Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Firm Storage Cost	\$ 5,346,396	\$ 5,346,396	\$ 5,493,978	\$ 5,493,978	\$ 5,327,308	\$ 5,402,874	\$ 5,402,874	\$ 5,402,874	\$ 5,402,874	\$ 5,437,849	\$ 5,436,723	\$ 5,436,723	\$ 64,930,847
Total Reservation Cost	\$ 22,455,267	\$ 22,604,196	\$ 23,133,478	\$ 22,699,393	\$ 22,075,955	\$ 19,485,167	\$ 19,581,212	\$ 19,451,587	\$ 19,510,639	\$ 19,558,833	\$ 19,468,417	\$ 19,537,894	\$ 249,562,038
Benchmark CPIM Commodity Cost	\$ 66,102,904	\$ 96,450,857	\$ 80,448,095	\$ 90,308,934	\$ 73,780,501	\$ 59,094,958	\$ 44,075,675	\$ 39,024,367	\$ 42,541,258	\$ 43,667,943	\$ 34,319,557	\$ 40,852,417	\$ 710,667,466

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Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
Actual Commodity Purchases Summary

	CGT-													
	PGE Citygate	CGT	El Paso	GTN	Kern	Nova	Ruby	TW	Total					
Nov-17	\$ 3,069,652	\$ 9,047,425	\$ 1,532,071	\$ 1,239,171	\$ -	\$ 15,340,730	\$ 10,310,000	\$ 17,656,862	\$ 58,195,911					
Dec-17	\$ 13,992,917	\$ 10,222,057	\$ 1,632,196	\$ 1,220,794	\$ 50,622	\$ 16,048,743	\$ 11,740,001	\$ 19,451,807	\$ 74,359,137					
Jan-18	\$ 14,114,347	\$ 5,301,609	\$ 1,565,809	\$ 4,470,653	\$ 34,810	\$ 14,702,274	\$ 10,652,715	\$ 17,869,757	\$ 68,711,974					
Feb-18	\$ 16,760,940	\$ 8,104,439	\$ 1,954,046	\$ 4,237,973	\$ -	\$ 13,509,628	\$ 10,159,347	\$ 18,285,211	\$ 73,011,584					
Mar-18	\$ 15,717,840	\$ 6,808,093	\$ 1,272,063	\$ 266,463	\$ 4,447	\$ 11,177,593	\$ 8,514,063	\$ 15,903,910	\$ 59,664,472					
Apr-18	\$ 6,315,480	\$ 7,033,521	\$ -	\$ 2,488,694	\$ -	\$ 10,303,953	\$ 5,287,884	\$ 4,944,661	\$ 36,374,193					
May-18	\$ 728,373	\$ 7,413,018	\$ -	\$ 3,871,337	\$ -	\$ 5,430,852	\$ 5,317,792	\$ 6,371,314	\$ 29,132,686					
Jun-18	\$ 20,255	\$ 7,571,535	\$ 110,597	\$ 3,829,838	\$ -	\$ 5,186,240	\$ 6,052,586	\$ 6,799,005	\$ 29,570,056					
Jul-18	\$ 200,060	\$ 9,526,794	\$ 11,250	\$ 1,831,439	\$ -	\$ 10,487,441	\$ 6,449,325	\$ 7,536,083	\$ 36,042,392					
Aug-18	\$ 173,942	\$ 12,903,278	\$ 109,060	\$ 2,447,643	\$ -	\$ 9,598,706	\$ 7,022,873	\$ 8,162,766	\$ 40,418,268					
Sep-18	\$ 741,469	\$ 8,108,120	\$ -	\$ 1,691,810	\$ -	\$ 7,709,594	\$ 6,308,248	\$ 7,293,158	\$ 31,852,399					
Oct-18	\$ 229,398	\$ 9,641,061	\$ -	\$ 970,956	\$ 345,600	\$ 9,921,392	\$ 6,712,698	\$ 8,470,415	\$ 36,291,520					
Total	\$ 72,064,673	\$ 101,680,950	\$ 8,187,092	\$ 28,566,771	\$ 435,479	\$ 129,417,146	\$ 94,527,532	\$ 138,744,949	\$ 573,624,592					

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Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
Volumetric Transportation Costs

	Gas Transmission		Kern River		PG&E California Gas		Transwestern Pipeline		Williams Field Services		
	El Paso Natural Gas Company, LLC	Northwest LLC	Gas Transmission Company		Transmission	Ruby Pipeline, LLC	Transcanada	Company	Complany, LLC		Total
Nov-17	\$ 12,293	\$ 95,252	\$ -	\$ -	\$ 1,863,465	\$ 195,114	\$ -	\$ 77,606	\$ 10,626	\$ -	\$ 2,254,356
Dec-17	\$ 9,973	\$ 96,437	\$ -	\$ -	\$ 1,874,109	\$ 202,312	\$ -	\$ 69,029	\$ 11,130	\$ -	\$ 2,262,990
Jan-18	\$ 3,991	\$ 97,490	\$ -	\$ -	\$ 1,692,163	\$ 123,987	\$ 4,042	\$ 48,030	\$ 10,663	\$ -	\$ 1,980,366
Feb-18	\$ 7,317	\$ 90,449	\$ -	\$ -	\$ 2,057,326	\$ 160,016	\$ -	\$ 58,571	\$ 10,195	\$ -	\$ 2,383,874
Mar-18	\$ 10,480	\$ 95,917	\$ -	\$ -	\$ 2,220,681	\$ 218,341	\$ -	\$ 75,987	\$ 11,188	\$ -	\$ 2,632,594
Apr-18	\$ -	\$ 92,780	\$ -	\$ -	\$ 1,666,832	\$ 271,434	\$ -	\$ 10,014	\$ 10,531	\$ -	\$ 2,051,591
May-18	\$ -	\$ 95,829	\$ -	\$ -	\$ 1,721,044	\$ 223,016	\$ 92	\$ 10,101	\$ 12,101	\$ -	\$ 2,062,183
Jun-18	\$ -	\$ 91,323	\$ -	\$ -	\$ 1,538,891	\$ 181,376	\$ -	\$ 10,105	\$ 9,895	\$ -	\$ 1,831,590
Jul-18	\$ -	\$ 93,730	\$ -	\$ -	\$ 1,692,938	\$ 299,322	\$ -	\$ 10,203	\$ 13,566	\$ -	\$ 2,109,759
Aug-18	\$ -	\$ 93,322	\$ -	\$ -	\$ 1,706,442	\$ 310,403	\$ -	\$ 9,838	\$ 14,031	\$ -	\$ 2,134,036
Sep-18	\$ -	\$ 91,884	\$ -	\$ -	\$ 1,610,868	\$ 291,077	\$ -	\$ 9,722	\$ 13,208	\$ -	\$ 2,016,759
Oct-18	\$ -	\$ 92,306	\$ 4,506	\$ -	\$ 1,649,440	\$ 279,321	\$ -	\$ 10,101	\$ 14,332	\$ -	\$ 2,050,006
Total	\$ 44,054	\$ 1,126,719	\$ 4,506	\$ -	\$ 21,294,199	\$ 2,755,719	\$ 4,134	\$ 399,307	\$ 141,466	\$ -	\$ 25,770,104

Pacific Gas and Electric Company  
 CPIM Year 25  
 November 1, 2017 - October 31, 2018  
 Commodity Sales Revenue

	CGT-									
	PG&E Citygate	CGT -All	El Paso	GTN	Kern	Nova	Ruby	TW	WFS	Total
Nov-17	\$ (16,659,677)	\$ (59,976)	\$ (172,684)	\$ (43,238)	\$ (64,963)	\$ (273,124)	\$ (140,132)	\$ (35,228)	\$ (582,130)	\$ (18,031,152)
Dec-17	\$ (1,266,530)	\$ (133,872)	\$ (450,998)	\$ (1,017,852)	\$ (504,401)	\$ (269,316)	\$ (379,850)	\$ (1,755,242)	\$ (1,001,132)	\$ (6,779,193)
Jan-18	\$ (1,340,851)	\$ (345,000)	\$ (1,461,408)	\$ (2,105,585)	\$ (1,604,911)	\$ (11,655)	\$ (3,516,003)	\$ (6,548,827)	\$ (4,723,216)	\$ (21,657,456)
Feb-18	\$ (1,885,243)	\$ -	\$ (978,034)	\$ (890,056)	\$ (104,112)	\$ (707)	\$ (1,563,042)	\$ (720,693)	\$ (2,314,449)	\$ (8,456,336)
Mar-18	\$ (5,327,733)	\$ (9,950)	\$ (284,855)	\$ -	\$ (95,333)	\$ -	\$ -	\$ (1,490,905)	\$ (353,887)	\$ (7,562,663)
Apr-18	\$ (1,463,766)	\$ (45,461)	\$ -	\$ (175,977)	\$ (116,370)	\$ (9,744)	\$ -	\$ -	\$ (269,458)	\$ (2,080,776)
May-18	\$ (5,337,737)	\$ (71,405)	\$ -	\$ (3,040)	\$ (693,645)	\$ (3,478)	\$ (596,463)	\$ (14,442)	\$ (1,800,108)	\$ (8,520,318)
Jun-18	\$ (8,155,635)	\$ (5,916)	\$ -	\$ (43,928)	\$ (1,346,412)	\$ (76,685)	\$ -	\$ -	\$ (3,569,147)	\$ (13,197,723)
Jul-18	\$ (17,167,519)	\$ (20,581)	\$ -	\$ (148,896)	\$ (159,727)	\$ (160,528)	\$ -	\$ -	\$ (631,726)	\$ (18,288,977)
Aug-18	\$ (17,314,635)	\$ (40,697)	\$ -	\$ (366,315)	\$ (205,372)	\$ (268,166)	\$ -	\$ -	\$ (223,020)	\$ (18,418,205)
Sep-18	\$ (21,244,549)	\$ -	\$ -	\$ (36,000)	\$ (29,397)	\$ (433,951)	\$ -	\$ -	\$ (283,073)	\$ (22,026,970)
Oct-18	\$ (17,675,472)	\$ (916,554)	\$ -	\$ (26,864)	\$ -	\$ (324,238)	\$ (22,000)	\$ (542,067)	\$ (550,622)	\$ (20,057,817)
Total	\$ (114,839,347)	\$ (1,649,412)	\$ (3,347,979)	\$ (4,857,751)	\$ (4,924,643)	\$ (1,831,592)	\$ (6,217,490)	\$ (11,107,404)	\$ (16,301,968)	\$ (165,077,586)

\$ (165,077,586)

\$ -

Pacific Gas and Electric Company  
 CPIM Year 25  
 November 1, 2017 - October 31, 2018  
 Demand Charges Summary

	El Paso Natural Gas Company LLC	Gas Transmission Northwest LLC	PG&E California Transmission	Ruby Pipeline, LLC	Transcanada-Foothills Pipelines Ltd	Transcanda Nova Gas Transmission Ltd	Transwestern Pipeline Company	Total
Nov-17	\$ 99,340	\$ 2,595,706	\$ 7,150,512	\$ 4,221,881	\$ 548,830	\$ 1,329,015	\$ 1,163,587	\$ 17,108,871
Dec-17	\$ 99,340	\$ 2,682,229	\$ 7,150,512	\$ 4,222,532	\$ 555,543	\$ 1,345,270	\$ 1,202,374	\$ 17,257,800
Jan-18	\$ 99,339	\$ 2,682,229	\$ 7,581,068	\$ 4,222,532	\$ 592,340	\$ 1,259,618	\$ 1,202,374	\$ 17,639,500
Feb-18	\$ 99,339	\$ 2,422,658	\$ 7,581,068	\$ 4,221,028	\$ 574,221	\$ 1,221,086	\$ 1,086,015	\$ 17,205,415
Mar-18	\$ 94,760	\$ 2,558,270	\$ 7,230,756	\$ 4,027,580	\$ 540,701	\$ 1,149,781	\$ 1,146,799	\$ 16,748,647
Apr-18	\$ -	\$ 2,475,745	\$ 5,748,709	\$ 4,026,830	\$ 542,680	\$ 1,153,989	\$ 134,340	\$ 14,082,293
May-18	\$ -	\$ 2,558,270	\$ 5,748,709	\$ 4,027,580	\$ 538,569	\$ 1,166,392	\$ 138,818	\$ 14,178,338
Jun-18	\$ -	\$ 2,475,745	\$ 5,748,709	\$ 4,026,830	\$ 525,342	\$ 1,137,747	\$ 134,340	\$ 14,048,713
Jul-18	\$ -	\$ 2,545,782	\$ 5,726,706	\$ 4,012,137	\$ 532,206	\$ 1,152,620	\$ 138,314	\$ 14,107,765
Aug-18	\$ -	\$ 2,548,496	\$ 5,726,706	\$ 4,012,072	\$ 535,545	\$ 1,159,851	\$ 138,314	\$ 14,120,984
Sep-18	\$ -	\$ 2,466,286	\$ 5,726,706	\$ 4,011,276	\$ 534,969	\$ 1,158,604	\$ 133,853	\$ 14,031,694
Oct-18	\$ -	\$ 2,548,496	\$ 5,726,706	\$ 4,012,080	\$ 529,284	\$ 1,146,291	\$ 138,314	\$ 14,101,171
Total	\$ 492,118	\$ 30,559,912	\$ 76,846,867	\$ 49,044,358	\$ 6,550,230	\$ 14,380,264	\$ 6,757,442	\$ 184,631,191

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



Pacific Gas and Electric Company  
 CPIM Year 25  
 November 1, 2017 - October 31, 2018  
 Other Commodity Costs and Revenues

	Cochrane Extraction Revenue	Non-Winter Hedge Costs and Revenues	Miscellaneous Costs and Revenues	Total
Nov-17	\$ (479,239)	\$ 73,838	\$ 17,078	\$ (388,323)
Dec-17	\$ (516,191)	\$ 6,200	\$ 17,681	\$ (492,310)
Jan-18	\$ (490,267)	\$ (83,700)	\$ 16,929	\$ (557,038)
Feb-18	\$ (399,406)	\$ 13,160	\$ 15,806	\$ (370,440)
Mar-18	\$ (319,614)	\$ 515,375	\$ 16,836	\$ 212,597
Apr-18	\$ (338,830)	\$ -	\$ 13,988	\$ (324,842)
May-18	\$ (431,348)	\$ (49,096)	\$ 17,708	\$ (462,736)
Jun-18	\$ (387,432)	\$ 306,338	\$ 26,454	\$ (54,640)
Jul-18	\$ (435,192)	\$ 191,703	\$ 19,881	\$ (223,608)
Aug-18	\$ (434,569)	\$ (2,725,776)	\$ 28,062	\$ (3,132,283)
Sep-18	\$ (468,499)	\$ 710,288	\$ 19,935	\$ 261,724
Oct-18	\$ (398,896)	\$ 1,556,580	\$ 20,374	\$ 1,178,058
Total	\$ (5,099,483)	\$ 514,910	\$ 230,732	\$ (4,353,841)

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Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
Winter Hedge Transaction

	Option	Option and Swap		Winter Hedge
	Premiums	Settlements	Commissoin and Fee	Costs
				Total
Nov-17	\$ -	\$ -	\$ -	\$ -
Dec-17	\$ 2,965,806	\$ -	\$ 4,077	\$ 2,969,883
Jan-18	\$ 2,965,806	\$ -	\$ 4,077	\$ 2,969,883
Feb-18	\$ 2,678,793	\$ -	\$ 3,683	\$ 2,682,476
Mar-18	\$ -	\$ -	\$ -	\$ -
Apr-18	\$ -	\$ -	\$ -	\$ -
May-18	\$ -	\$ -	\$ -	\$ -
Jun-18	\$ -	\$ -	\$ -	\$ -
Jul-18	\$ -	\$ -	\$ -	\$ -
Aug-18	\$ -	\$ -	\$ -	\$ -
Sep-18	\$ -	\$ -	\$ -	\$ -
Oct-18	\$ -	\$ -	\$ -	\$ -
Total	\$ 8,610,405	\$ -	\$ 11,837	\$ 8,622,242

Pacific Gas and Electric Company  
 CPIM Year 25  
 November 1, 2017 - October 31, 2018  
 Demand Charge Discounts Summary

	El Paso Natural Gas Company LLC	Gas Transmission Northwest LLC	Transwestern Pipeline Company	Total
Nov-17	\$ (9,046)	\$ (2,572)	\$ (38,350)	\$ (49,968)
Dec-17	\$ (9,046)	\$ (2,658)	\$ (37,389)	\$ (49,093)
Jan-18	\$ (9,046)	\$ (2,658)	\$ (36,335)	\$ (48,039)
Feb-18	\$ (9,046)	\$ (2,400)	\$ (32,818)	\$ (44,264)
Mar-18	\$ (8,629)	\$ (2,535)	\$ (40,991)	\$ (52,155)
Apr-18	\$ -	\$ (2,453)	\$ (6,397)	\$ (8,850)
May-18	\$ -	\$ (2,535)	\$ (6,610)	\$ (9,145)
Jun-18	\$ -	\$ (2,453)	\$ (6,397)	\$ (8,850)
Jul-18	\$ -	\$ (2,525)	\$ (6,595)	\$ (9,120)
Aug-18	\$ -	\$ (2,525)	\$ (7,240)	\$ (9,765)
Sep-18	\$ -	\$ (2,444)	\$ (7,007)	\$ (9,451)
Oct-18	\$ -	\$ (2,525)	\$ (4,149)	\$ (6,674)
Total	\$ (44,813)	\$ (30,283)	\$ (230,278)	\$ (305,374)



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Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
Firm Incremental Storage

	PG&E California				
	Transmission	Gas Storage-003	Gas Storage-002		Total
Nov-17	\$ 5,179,726	\$ 166,670	\$ -	\$	5,346,396
Dec-17	\$ 5,179,726	\$ 166,670	\$ -	\$	5,346,396
Jan-18	\$ 5,327,308	\$ 166,670	\$ -	\$	5,493,978
Feb-18	\$ 5,327,308	\$ 166,670	\$ -	\$	5,493,978
Mar-18	\$ 5,327,308	\$ -	\$ -	\$	5,327,308
Apr-18	\$ 5,402,874	\$ -	\$ -	\$	5,402,874
May-18	\$ 5,402,874	\$ -	\$ -	\$	5,402,874
Jun-18	\$ 5,402,874	\$ -	\$ -	\$	5,402,874
Jul-18	\$ 5,402,874	\$ -	\$ -	\$	5,402,874
Aug-18	\$ 5,402,874	\$ -	\$ 34,975	\$	5,437,849
Sep-18	\$ 5,401,748	\$ -	\$ 34,975	\$	5,436,723
Oct-18	\$ 5,401,748	\$ -	\$ 34,975	\$	5,436,723
Total	\$ 64,159,242	\$ 666,680	\$ 104,925	\$	64,930,847

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Pacific Gas and Electric Company

CPIM Year 25

November 1, 2017 - October 31, 2018

Benchmark Commodity Cost

	Ruby Opal	NOVA Aeco	TW San Juan	GTN Kingsgate	Topock-Baja	Citygate	Total
Nov-17	\$ 11,972,483	\$ 15,962,765	\$ 11,677,987	\$ 197,770	\$ 2,283,604	\$ 1,541,028	\$ 43,635,637
Dec-17	\$ 17,971,244	\$ 16,669,232	\$ 14,729,496	\$ 194,052	\$ 7,975,195	\$ 13,919,135	\$ 71,458,354
Jan-18	\$ 15,744,020	\$ 15,534,399	\$ 14,284,883	\$ 159,035	\$ 4,661,902	\$ 4,542,071	\$ 54,926,310
Feb-18	\$ 14,577,759	\$ 14,273,931	\$ 14,596,102	\$ 63,278	\$ 4,557,212	\$ 17,384,079	\$ 65,452,361
Mar-18	\$ 12,469,215	\$ 11,738,200	\$ 10,052,763	\$ 28,201	\$ 3,969,510	\$ 13,434,257	\$ 51,692,146
Apr-18	\$ 11,646,267	\$ 11,044,687	\$ 961,260	\$ -	\$ 7,464,613	\$ 8,480,964	\$ 39,597,791
May-18	\$ 12,324,476	\$ 6,244,199	\$ 1,067,073	\$ 16,678	\$ 4,559,052	\$ 270,585	\$ 24,482,063
Jun-18	\$ 11,793,471	\$ 5,937,323	\$ 1,219,368	\$ 45,240	\$ 565,378	\$ -	\$ 19,560,780
Jul-18	\$ 10,368,646	\$ 11,300,063	\$ 1,272,419	\$ 77,091	\$ -	\$ -	\$ 23,018,219
Aug-18	\$ 12,176,544	\$ 10,389,440	\$ 1,419,428	\$ 111,298	\$ -	\$ -	\$ 24,096,710
Sep-18	\$ 5,781,899	\$ 7,686,229	\$ 1,253,260	\$ 117,752	\$ -	\$ -	\$ 14,839,140
Oct-18	\$ 9,475,570	\$ 10,377,882	\$ 1,181,952	\$ 160,200	\$ 106,519	\$ -	\$ 21,302,123
Total	\$ 146,301,594	\$ 137,158,350	\$ 73,715,991	\$ 1,170,595	\$ 36,142,985	\$ 59,572,119	\$ 454,061,634

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Pacific Gas and Electric Company

CPIM Year 25

November 1, 2017 - October 31, 2018

Benchmark Winter Hedge Costs

	Option Premiums	Option and Swap Settlements	Commision and Fees	Total
Nov-17	\$ -	\$ -	\$ -	\$ -
Dec-17	\$ 2,372,645	\$ -	\$ 3,262	\$ 2,375,907
Jan-18	\$ 2,372,645	\$ -	\$ 3,262	\$ 2,375,907
Feb-18	\$ 2,143,034	\$ -	\$ 2,946	\$ 2,145,980
Mar-18	\$ -	\$ -	\$ -	\$ -
Apr-18	\$ -	\$ -	\$ -	\$ -
May-18	\$ -	\$ -	\$ -	\$ -
Jun-18	\$ -	\$ -	\$ -	\$ -
Jul-18	\$ -	\$ -	\$ -	\$ -
Aug-18	\$ -	\$ -	\$ -	\$ -
Sep-18	\$ -	\$ -	\$ -	\$ -
Oct-18	\$ -	\$ -	\$ -	\$ -
Total	\$ 6,888,324	\$ -	\$ 9,470	\$ 6,897,794

## Pacific Gas and Electric Company

CPIM Year 25

November 1, 2017 - October 31, 2018

## Actual Commodity Purchases Volume Summary in MMBtu

	CGT-									
	PGE Citygate	CGT	El Paso	GTN	Kern	Nova	Ruby	TW	WFS	Total
Nov-17	986,253	3,365,513	629,834	439,700	-	9,075,822	3,883,285	4,757,303	2,270,000	25,407,710
Dec-17	4,796,799	4,022,804	641,965	418,803	17,700	9,457,507	4,289,964	4,923,798	2,481,600	31,050,940
Jan-18	4,710,050	2,023,663	642,684	1,606,400	13,013	9,381,587	4,187,153	4,887,649	2,321,853	29,774,052
Feb-18	5,782,907	3,560,011	725,183	1,601,757	-	8,471,967	3,615,230	4,442,326	2,240,733	30,440,114
Mar-18	5,703,300	3,469,418	619,381	122,800	1,996	8,931,753	3,880,000	5,258,285	2,341,200	30,328,133
Apr-18	2,340,669	3,729,105	-	1,226,000	-	8,651,673	2,830,600	543,392	2,169,600	21,491,039
May-18	256,002	4,019,897	-	2,094,321	3,165	8,935,545	2,774,898	556,304	2,854,247	21,494,379
Jun-18	7,000	3,401,511	-	1,862,784	-	8,639,921	2,865,367	548,000	2,696,427	20,021,010
Jul-18	67,000	3,864,584	-	750,907	-	8,943,032	2,860,000	553,562	2,846,209	19,885,294
Aug-18	67,093	3,800,137	-	970,507	-	8,968,908	2,893,945	535,397	2,884,560	20,120,547
Sep-18	251,337	3,359,746	-	746,800	-	8,737,640	2,700,000	529,082	2,710,412	19,035,017
Oct-18	64,569	4,127,765	-	361,400	102,500	8,990,518	2,850,100	846,635	2,957,000	20,300,487
Total	25,032,979	42,744,154	3,259,047	12,202,179	138,374	107,185,873	39,630,542	28,381,733	30,773,841	289,348,722

Total Sale Volume: (57,226,473)Total Net Purchase Volume: 232,122,249



## Pacific Gas and Electric Company

CPIM Year 25

November 1, 2017 - October 31, 2018

## Actual Commodity Sale Volume in MMBtu Summary

	CGT- PGE Citygate	CGT- All	El Paso	GTN	Kern	Nova	Ruby	TW	WFS	Total
Nov-17	(5,390,253)	(24,990)	(62,975)	(15,000)	(22,500)	(161,982)	(49,985)	(14,500)	(204,486)	(5,946,671)
Dec-17	(433,500)	(46,346)	(181,060)	(385,600)	(180,998)	(227,855)	(134,962)	(645,567)	(380,053)	(2,615,941)
Jan-18	(444,627)	(110,500)	(461,106)	(649,809)	(514,273)	(7,109)	(1,079,175)	(1,884,990)	(1,512,791)	(6,664,380)
Feb-18	(733,200)	-	(388,483)	(354,700)	(41,540)	(948)	(574,930)	(296,633)	(831,238)	(3,221,672)
Mar-18	(2,023,759)	(5,000)	(137,982)	-	(41,089)	-	-	(727,915)	(167,200)	(3,102,945)
Apr-18	(552,400)	(17,621)	-	(92,693)	(52,000)	(10,047)	-	-	(127,000)	(851,761)
May-18	(1,880,900)	(36,168)	-	(1,600)	(365,363)	(2,370)	(330,400)	(8,700)	(975,347)	(3,600,848)
Jun-18	(2,669,037)	(2,113)	-	(19,800)	(658,357)	(164,446)	-	-	(1,685,985)	(5,199,738)
Jul-18	(5,727,997)	(7,381)	-	(60,100)	(70,954)	(191,459)	-	-	(263,118)	(6,321,009)
Aug-18	(5,444,100)	(14,866)	-	(146,000)	(80,145)	(319,225)	-	-	(85,300)	(6,089,636)
Sep-18	(6,701,094)	-	-	(15,000)	(12,300)	(269,275)	-	-	(134,512)	(7,132,181)
Oct-18	(5,087,193)	(385,150)	-	(9,200)	-	(375,999)	(10,000)	(368,300)	(243,849)	(6,479,691)
Total	(37,088,060)	(650,135)	(1,231,606)	(1,749,502)	(2,039,519)	(1,730,715)	(2,179,452)	(3,946,605)	(6,610,879)	(57,226,473)

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Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018  
Benchmark Load

	Ruby Opal	NOVA Aeco	TW San Juan	GTN Kingsgate	KR Opal	Topock-Baja	Citygate	Total
Nov-17	4,309,144	8,559,004	4,449,836	93,660		835,914	493,700	18,741,258
Dec-17	6,240,234	8,870,340	5,379,275	91,171		2,995,236	4,792,458	28,368,714
Jan-18	5,883,530	8,890,211	5,376,981	79,949		1,631,348	1,531,695	23,393,714
Feb-18	4,926,002	8,086,260	4,835,845	31,668		1,851,584	6,105,892	25,837,251
Mar-18	5,370,733	8,381,866	4,459,285	17,298		1,928,454	4,886,191	25,043,827
Apr-18	5,771,040	8,258,730	530,910	-		3,432,260	3,105,416	21,098,356
May-18	5,957,707	8,529,557	548,607	17,298		2,294,880	93,154	17,441,203
Jun-18	5,216,116	8,247,840	530,910	47,790		226,900	-	14,269,556
Jul-18	4,299,171	8,465,139	546,623	49,228		-	-	13,360,161
Aug-18	4,712,571	8,422,049	546,623	75,857				13,757,100
Sep-18	2,319,486	7,550,991	528,990	94,050				10,493,517
Oct-18	3,808,985	8,276,998	546,623	107,849		42,513		12,782,968
Total	58,814,719	100,538,985	28,280,508	705,818	-	15,239,089	21,008,506	224,587,625

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Pacific Gas and Electric Company  
CPIM Year 25

November 1, 2017 - October 31, 2018

Custom & Border Protection  
Merchandise Processing Fee

	<u>Merchandise Processing Fee</u>
Nov-17	\$ 12,000
Dec-17	\$ 12,400
Jan-18	\$ 12,400
Feb-18	\$ 11,200
Mar-18	\$ 12,400
Apr-18	\$ 12,000
May-18	\$ 12,400
Jun-18	\$ 12,000
Jul-18	\$ 12,400
Aug-18	\$ 12,400
Sep-18	\$ 12,000
Oct-18	\$ 12,400
Total	<u>\$ 146,000</u>

Pacific Gas and Electric Company  
CPIM Year 25  
November 1, 2017 - October 31, 2018

Storage Inventory Summary

<b>Gas Storage Providers</b>	<b>Beginning Inventory 11/01/17 (MMBtus)</b>	<b>Ending Inventory 10/31/18 (MMBtus)</b>
Firm Storage CGT	27,887,345	28,257,621
Incremental Storage	1,000,000	150,000
<b>Total Storage Inventory</b>	<b>28,887,345</b>	<b>28,407,621</b>