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**OFFICE OF RATEPAYER ADVOCATES**  
**California Public Utilities Commission**

**MONITORING AND EVALUATION REPORT**

**Southern California Gas Company's  
Gas Cost Incentive Mechanism**

**GCIM Year 23  
April 1, 2016 through March 31, 2017**

**Application 17-06-016**

**October 16, 2017  
San Francisco, California**

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# CHAPTER 1

## SUMMARY AND RECOMMENDATIONS

### 1.1 Introduction and Summary

On June 15, 2017, Southern California Gas Company (U 904 G), (SoCalGas) filed and served Application (A.) 17-06-016 for Gas Cost Incentive Mechanism (GCIM) Year 23; April 1, 2016 through March 31, 2017. The Office of Ratepayer Advocates (ORA) audited and evaluated the Application and SoCalGas' GCIM Year 23 Annual Report (Annual Report). Chapter 2 of this ORA Monitoring and Evaluation Report (ORA Report) presents the details and results of ORA's review. The attached Appendix A includes the work papers (e.g., records or information produced by SoCalGas in data request responses) supporting ORA's findings.

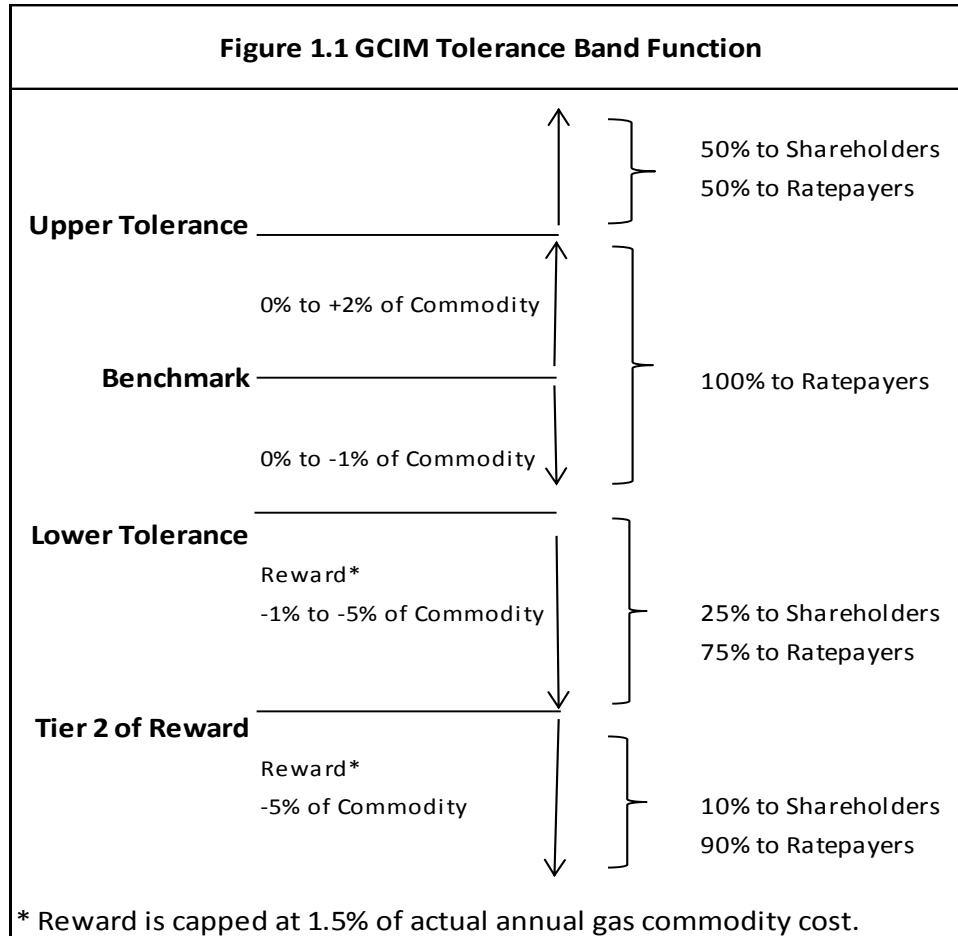
ORA found that SoCalGas' recorded gas costs were \$27,154,492 below the benchmark, which results in a reward of \$4,235,031 to SoCalGas' shareholders and a ratepayer benefit of \$22,919,461. Table 1-1 below summarizes SoCalGas' Year 23 performance which is based on the detailed GCIM monthly reports of core commodity transaction activities.

<b>TABLE 1-1</b> <b>Southern California Gas Company</b> <b>Performance Summary (in \$Millions)</b> <b>GCIM Year 23</b> <b>April 1, 2016 Through March 31, 2017</b>		
<b>Benchmark Costs</b>	<b>\$</b>	<b>1,237.83</b>
<b>Actual Costs</b>	<b>\$</b>	<b>1,210.67</b>
<b>GCIM Total Savings</b>	<b>\$</b>	<b>27.15</b>
<b>Ratepayer Savings</b>	<b>\$</b>	<b>22.92</b>
<b>Shareholder Reward</b>	<b>\$</b>	<b>4.23</b>

### 1.2 Background

The objective of the GCIM is to provide an incentive for reducing natural gas procurement costs and other related costs such as: transportation, storage capacity, financial hedging, and retail core gas sales. The GCIM is used as a ratemaking tool to increase efficiency in administering regulatory controls. For gas utilities, it provides a framework of benchmarks to indicate when actual purchase costs are within a stated range referred to as a "tolerance band." If SoCalGas' actual costs—as measured by the GCIM benchmark—are between the upper and lower range limitations of the tolerance band there is no shareholder penalty or reward for the GCIM period. If actual gas costs

fall above or below the tolerance band, then both SoCalGas ratepayers and shareholders share in the resulting gains or losses. Chapter 2 of this ORA Report presents the results of the tolerance band calculations. The following graph, Figure 1.1, illustrates how the tolerance band functions in determining the shared costs for SoCalGas' shareholders and ratepayers.



The upper limit of the tolerance band is set at two percentage points above the benchmark commodity costs. The lower limit of the tolerance band is set at one percentage point below this benchmark. When SoCalGas' actual costs fall within this tolerance band, the benefits or losses accrued go to the ratepayers.<sup>1</sup>

In cases where actual costs fall outside the tolerance band, the benefits or losses are shared between shareholders and ratepayers. The amounts of these benefits or losses are based on whether the actual costs are outside the upper or lower limits of the tolerance band. For example, if actual costs exceed the upper two-percent (2%) tolerance limit, the excess costs are shared 50-50 between ratepayers and

<sup>1</sup> See *SoCalGas*, D.02-06-023, 2002 Cal. PUC LEXIS 352, at \*10 and \*37-38 (respectively, Settlement and Ord. Para. 1) (dated June 6, 2002).

shareholders. If actual costs are below the benchmark commodity costs and between the lower one-percent (1%) tolerance limit and the five-percent (5%) range, this will generate savings that are shared at twenty-five percent (25%) for shareholders and seventy-five percent (75%) for ratepayers. If actual costs are more than five percentage points below the benchmark commodity costs, the savings are shared as ninety-percent (90%) savings for ratepayers and a ten-percent (10%) reward for shareholders. The SoCalGas reward is capped at 1.5% of actual commodity costs.

Commission Decision (D.) 94-03-076 originally approved the GCIM program, with subsequent changes and extensions that essentially enhanced the current program incentives. D.10-01-023 changed the treatment of winter hedging costs by allowing twenty-five percent (25%) of net hedging gains and losses related to winter gas purchases to flow through to the GCIM calculation, and seventy five percent (75%) of costs to be passed through directly to core customers.

### 1.3 GCIM Summary

Table 1-2 below provides a summary of GCIM results over the past five years. Chapter 2 of ORA's Report presents ORA's supporting calculations for GCIM Year 23.

<b>GCIM Year</b>	<b>Period</b>	<b>Total Cost Savings</b>	<b>Ratepayer Savings</b>	<b>Shareholder Rewards</b>
19	2012-2013	34.75	28.91	5.83
20	2013-2014	70.40	56.69	13.71
21	2014-2015	43.11	35.86	7.25
22	2015-2016	28.16	23.12	5.04
23	2016-2017	27.15	22.92	4.23

### 1.4 Natural Gas Storage

To ensure dedicated core storage capacity, in D.06-10-029, the Commission authorized SoCalGas to revise its Preliminary Statement, Part VIII, and GCIM to reflect changes in its mid-season minimum core inventory targets. Prior to making a revision, SoCalGas is required to seek agreement from ORA and The Utility Reform Network

(TURN).<sup>2</sup> On June 28, 2016, SoCalGas filed Advice Letter 4981, and proposed a 25 Bcf mid-season target. SoCalGas and ORA did not reach an agreement for a mid-season minimum storage target of 25 Bcf as of July 31, 2016, and the Commission's Energy Division rejected Advice Letter 4981.<sup>3</sup> Chapter 2 of this ORA Report provides a review of the minimum targets compared to actual capacity holdings. The results show that SoCalGas did not meet the winter season minimum core inventory storage targets.

In D.08-12-020, the Commission adopted the Phase One Settlement Agreement (dated August 22, 2008),<sup>4</sup> which eliminates the upper tolerance band for core storage. By combining San Diego Gas & Electric Company's (SDG&E) and SoCalGas' balancing requirements, this ensures sufficient storage for core customers in Southern California. As of April 1, 2009, SoCalGas has implemented the core balancing requirements. For this reporting period, SoCalGas reported no core imbalance charges.

### **1.5 Financial Hedging in GCIM**

In accordance with D.10-01-023, effective April 2010, SoCalGas is not required to file a Winter Hedging Plan Report.<sup>5</sup> Instead, SoCalGas includes 25% of its winter hedging transactions in the GCIM. ORA reviewed SoCalGas' financial derivative gains and losses based on the methodology and according to Commission policies and practices which is described in Chapter 2, Sections 2.10 and 2.11 of ORA's Report.

In the GCIM, SoCalGas performed its winter hedging based on a ratio of twenty-five percent (25%) of all net gains and losses, which was included in the GCIM. The remaining seventy-five percent (75%) was excluded, which resulted in costs passed through to core customers.

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<sup>2</sup> See *SoCalGas*, D. 06-10-029, 2006 Cal. PUC LEXIS 398, at \*15 (Ord. Para. 3 approving and adopting "Joint Recommendations" [id. at \*11] to allow changes in mid-season minimum core inventory targets).

<sup>3</sup> *Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. Leeden, SoCalGas Dir. of Reg. Affairs, (April 28, 2017, rejecting SoCalGas, Adv. Letr 4981).*

<sup>4</sup> See *SoCalGas*, D.08-12-020, 2008 Cal. PUC LEXIS 482, at \*47 (Ord. Para. 1 adopting) (dated Dec. 4, 2008).

<sup>5</sup> See *SoCalGas*, D.10-01-023, 2010 Cal. PUC LEXIS 5, at \*100 (Ord. Para. 5) (dated Jan. 25, 2010).

In addition to core winter hedges, SoCalGas transacted non-winter hedges. For this period, SoCalGas' non-winter hedges results are also included in the GCIM.<sup>6</sup> Table 1-3 below shows the results of SoCalGas' hedging activities for the most recent five-year GCIM periods.

TABLE 1-3 Southern California Gas Company Financial Hedging (in \$Millions)			
GCIM Year	Losses/(Gains) Outside the GCIM	Losses/(Gains) Inside the GCIM	Total Hedging Losses/(Gains)
19	\$ 0.75	\$ 0.25	\$ 1.00
20	\$ (1.18)	\$ 0.20	\$ (0.98)
21	\$ 1.52	\$ 0.45	\$ 1.97
22	\$ 0.52	\$ 0.26	\$ 0.78
23	\$ 1.99	\$ 0.61	\$ 2.60

## 1.6 Interstate Capacity

In D.04-09-022, the Commission established interstate pipeline contract approval procedures for SoCalGas, SDG&E, and Pacific Gas and Electric Company (PG&E).<sup>7</sup> These procedures included authorized capacity planning ranges to provide flexibility in meeting the utilities' regional market demands and regulatory compliance requirements regarding their Biennial Cost Allocation Proceedings (BCAP) or advice letter filings.<sup>8</sup>

In accordance with the capacity guideline procedures established by D.04-09-022, SoCalGas, ORA, TURN, and the Commission's Energy Division conduct on-going discussions regarding interstate capacity requirements and SoCalGas' acquisition of interstate capacity. ORA serves as a resource for addressing compliance issues that impact acquisition and/or reduction of interstate capacity.<sup>9</sup>

Effective September 6, 2014, Advice Letter 4679 governs SoCalGas' capacity planning range for its combined gas portfolio with SDG&E for its winter and non-winter

<sup>6</sup> See *infra* at sec. 2.10 ("Financial Derivatives").

<sup>7</sup> OIR, D.04-09-022, 2004 Cal. PUC LEXIS 522, at \*140 (Ord. Para. 2) (dated Sept. 2, 2004).

<sup>8</sup> *Id.* at \*137 (Concl. of Law 6).

<sup>9</sup> *Id.* at \*18 ("SoCalGas' Gas Acquisition Department will consult with ORA, the Energy Division and TURN on a monthly basis.").

requirements.<sup>10</sup> The updated minimum capacity for non-winter requires 988 MDth/d, and maximum capacity of 1,318 MDth/d. For winter, the combined portfolio minimum capacity is 1,098 MDth/d and maximum capacity is 1,318 MDth/d.<sup>11</sup>

For GCIM Year 23, SoCalGas' report shows that for actual monthly activities of core firm transportation capacity holdings the minimum capacity requirements established by D.04-09-022 were met.

### **1.7 Secondary Market Services Transactions**

Secondary Market Services (SMS) produce revenues from core gas supplies and resources not needed for reliability requirements. SoCalGas meets this regional market demand while simultaneously applying these revenues to directly offset core commodity costs. As a result, this reduces core gas costs, which achieves SoCalGas' primary objectives of ensuring supply and service reliability at a low cost.<sup>12</sup>

For the GCIM Year 23 period, SoCalGas shows net SMS revenues in the GCIM of \$9,437,169.<sup>13</sup> These revenues offset part of the gas cost and enable SoCalGas to lower its core commodity costs.

### **1.8 Conclusion**

ORA's review verified that for GCIM Year 23, SoCalGas' total savings amount was \$27,154,492. ORA recommends that SoCalGas' shareholder receive a reward in the amount of \$4,235,031. ORA confirms that for the same reporting period ratepayer benefits amounted to \$22,919,461. In collaboration with SoCalGas and other parties, ORA will continue monitoring and evaluating the GCIM to identify any changes needed to improve the GCIM's effectiveness, which SoCalGas and ORA would submit to the Commission for approval and adoption.

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<sup>10</sup> See Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. Prince, SoCalGas Dir. of Reg. Affairs, (Sept. 6, 2014, approving SoCalGas, Adv. Letr 4679, (Aug. 7, 2014).

<sup>11</sup> See SoCalGas GCIM Yr. 23 Rept. at section, "Southern California Gas Company Firm Transportation Capacity Holdings as of March 31, 2017."

<sup>12</sup> See A.12-06-005, at pp. 3-4.

<sup>13</sup> See *infra* at sec. 2.12 ("Review of Secondary Market Services Revenues").



## **CHAPTER 2**

### **MONITORING AND EVALUATION AUDIT**

#### **2.1 ORA's GCIM Reward Evaluation**

On June 15, 2017, Southern California Gas Company (SoCalGas) filed the Gas Cost Incentive Mechanism (GCIM) Year 23 Application (A.) 17-06-016, which reports core gas procurement results for the period April 1, 2016 through March 31, 2017. ORA conducted a review and evaluation of SoCalGas' accompanying annual report. ORA's work papers are included in Appendix A.

ORA's evaluation of SoCalGas' GCIM performance for the year ending March 31, 2017, confirmed total savings of \$27,154,492 in gas costs. These savings are based on the difference between the actual commodity costs of gas of \$1,210,673,616 and the GCIM benchmark commodity costs of \$1,237,828,108, which are shared between SoCalGas' ratepayers and shareholders. ORA verified that the GCIM sharing mechanism resulted in ratepayer savings of \$22,919,461 and a shareholder reward of \$4,235,031. Table 2-1 below summarizes the SoCalGas GCIM Year 23 savings based on the calculated tolerance band levels shown in Table 2-2 and GCIM benchmark dollars.

**TABLE 2-1**  
**Southern California Gas Company**  
**Reward Calculation**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

	SCG Annual Report
Benchmark Costs	\$ 1,237,828,108
Actual Costs	\$ 1,210,673,616
GCIM Year 23 Annual Report: Total Savings Below Benchmark	<u>\$ 27,154,492</u>
Amount of Lower Tolerance Band Not Subject to Sharing (0%-1%)	\$ 10,214,369
Ratepayers' share:	\$ 10,214,369
Amount Subject to 75%-25% Sharing (1%-5%)	\$ 16,940,123
Ratepayers' share: 75%	75% \$ 12,705,092
Shareholders' share: 25%	25% \$ 4,235,031
Amount Subject to 90%/10% Sharing (> 5%)	\$ -
Ratepayers' share: 90%	0% \$ -
Shareholders' share: 10%	0% \$ -
Cap on Shareholder Rewards = 1.5% of commodity costs:	
Total Commodity costs:	\$ 772,173,967
Shareholder Reward Cap:	1.50% \$ 11,582,610
Total Ratepayers' Share:	\$ 22,919,461
Total Shareholders' Share:	\$ 4,235,031
Total Savings:	<u>\$ 27,154,492</u>

## 2.2 Summary of Benchmark and Actual Costs

Table 2-2 below shows an annual summary of monthly gas commodity costs that are the basis for the 1.5% cap of the shareholder reward shown in Table 2-1. The calculated tolerance bands and the related actual commodity cost of gas are measured annually against a benchmark. The benchmark is based on the prevailing published natural gas price indices for gas delivered from the mainline to the California border.

<p style="text-align: center;"><b>TABLE 2-2</b>  <b>Southern California Gas Company</b>  <b>Tolerance Band Review</b>  <b>GCIM Year 23</b>  <b>April 1, 2016 Through March 31, 2017</b></p>						
Month	Benchmark Dollars*	Actual Dollars*	(Over)/Under Benchmark	Upper Tolerance 2%	Lower Tolerance 1%	Actual Commodity Cost
Apr-16	\$ 43,938,641	\$ 40,242,111	\$ 3,696,529	\$ 578,070	\$ 289,035	\$ 25,206,957
May-16	\$ 51,881,336	\$ 50,449,954	\$ 1,431,382	\$ 731,791	\$ 365,896	\$ 35,158,171
Jun-16	\$ 52,629,413	\$ 50,077,915	\$ 2,551,497	\$ 750,880	\$ 375,440	\$ 34,992,483
Jul-16	\$ 98,726,370	\$ 97,208,962	\$ 1,517,408	\$ 1,665,997	\$ 832,998	\$ 81,782,429
Aug-16	\$ 93,391,157	\$ 92,562,418	\$ 828,739	\$ 1,559,648	\$ 779,824	\$ 77,153,638
Sep-16	\$ 92,352,207	\$ 91,880,300	\$ 471,907	\$ 1,535,408	\$ 767,704	\$ 76,298,483
Oct-16	\$ 85,194,552	\$ 85,412,319	\$ (217,767)	\$ 1,383,496	\$ 691,748	\$ 69,392,589
Nov-16	\$ 86,477,751	\$ 85,768,413	\$ 709,339	\$ 1,370,413	\$ 685,207	\$ 67,811,321
Dec-16	\$ 176,230,697	\$ 175,181,479	\$ 1,049,219	\$ 3,129,877	\$ 1,564,938	\$ 155,444,616
Jan-17	\$ 226,615,646	\$ 223,721,898	\$ 2,893,748	\$ 4,027,400	\$ 2,013,700	\$ 198,476,230
Feb-17	\$ 158,109,355	\$ 151,158,548	\$ 6,950,808	\$ 2,707,232	\$ 1,353,616	\$ 128,410,806
Mar-17	\$ 72,280,983	\$ 67,009,299	\$ 5,271,683	\$ 988,528	\$ 494,264	\$ 44,154,698
Total	\$1,237,828,108	\$1,210,673,616	\$ 27,154,492	\$20,428,738	\$ 10,214,369	\$ 994,282,420
	*Included transportation costs and reservation costs.					

### 2.3 Review of Benchmark Volumes and Costs

Table 2-3 shows the components of mainline and border benchmark costs. ORA's review of GCIM Year 23 records confirms Total Benchmark Dollar Costs of \$1,237,828,108.

The Total Benchmark Commodity Costs consist of Mainline Benchmark Commodity Costs of \$805,728,240 and Benchmark Border Commodity Costs of \$215,708,673 which are calculated based on the Southern California Border Costs of \$67,718,452, SoCalGas City-Gate Commodity Cost of \$148,557,355, and PG&E Topock/City-Gate gain of \$567,134.

The Total Benchmark Dollar Costs include the flow through costs of volumetric interstate Transportation Cost from Mainline of \$6,871,005 and interstate capacity Benchmark Reservation Charges of \$209,520,191 plus the Total Benchmark Commodity Costs of \$1,021,436,913 for a total of \$1,237,828,108.

**TABLE 2-3**  
**Southern California Gas Company**  
**Benchmark Dollar Components**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

<u>Annual Report:</u>	<u>Benchmark Dollars</u>
Mainline Benchmark Costs	\$ 805,728,240
Southern California Border Costs	67,718,452
SoCalGas City-Gate Commodity Costs	148,557,355
PG&E Topock/City-Gate Costs	<u>(567,134)</u>
Sub-Total Border Benchmark Commodity Costs	\$ 215,708,673
Total Benchmark Commodity Costs	<u><u>\$ 1,021,436,913</u></u>
Flow-Through Costs	
Transport Costs from pipelines	\$ 6,871,005
Benchmark Reservation Charges	\$ 209,520,191
Rounding	<u>\$ (1)</u>
Total Benchmark Dollar Costs:	<u><u>\$ 1,237,828,108</u></u>

Table 2-3A shows the Net Total Benchmark Volume is 374,288,225 MMBtus for the period from April 2016 through March 2017, which is comprised of the following: (i) 320,308,820 MMBtus, which is the Benchmark Mainline Volumes total; (ii) plus 16,156,271 MMBtus, which is the Benchmark Border Volumes total for the same period; (iii) plus 38,027,634 MMBtus, which is the Benchmark SoCalGas CityGate Volumes total; (iv) minus 204,500 MMBtus, which is the total of Benchmark PG&E Topock Volumes. The Actual Transported Volume of 349,420,121 MMBtus is the actual total purchase volumes that SoCalGas received during the GCIM Year 23 period.

**TABLE 2-3A**  
**Southern California Gas Company**  
**Benchmark Market Volumes (In MMBtus)**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Benchmark Mainline Volumes	320,308,820
Benchmark Border Volumes	16,156,271
Benchmark Citygate Volumes	38,027,634
Benchmark PG&E Toptock Volumes	<u>(204,500)</u>
Net Total Benchmark Volumes	<u><u>374,288,225</u></u>
Actual Transported Volumes	<u><u>349,420,121</u></u>

## 2.4 Actual Gas Costs and Volumes

Table 2-4 shows the Actual Gas Costs Components consisting of Mainline Commodity Purchases, Border and CityGate Purchases, Gas Sales revenues, Other Revenues/Costs, Interstate Volumetric Transportation Costs, and Reservation Charges. ORA found that the volumes and corresponding dollar amounts for each of these Components in Table 2-4 were supported by SoCalGas' records.

Gas commodity costs for purposes of gas sales are deducted from core purchases. The adjustments to Mainline Commodity Purchases and Border and CityGate Purchases consist of (i) Net Secondary Market Service Revenues of \$9,437,169 and (ii) losses from GCIM Derivative Transactions of \$607,769 and an Off System Parking Fee of \$65,110, which are included as part of actual commodity costs. Therefore, the Total Commodity Costs are \$994,282,419.

The net revenues from secondary market transactions using core assets, such as puts and loans, are included as a credit to actual commodity costs.<sup>14</sup> The gross revenues of \$10,555,675 were adjusted for related operating overhead costs of \$1,118,506, resulting in net revenues of \$9,437,169.<sup>15</sup>

SoCalGas' records show calculations of Interstate Volumetric Transportation Costs as \$6,871,005, and firm Reservation Charges as \$209,520,191. The total of these costs and charges were added to the Total Commodity Costs of \$994,282,419, which results in the corresponding total volume and costs of \$1,210,673,616, as shown on the last line in Table 2-4.

The volume of 468,710,254 MMBtus is comprised of the totals for two types of gas purchases and their corresponding volumes: (i) Total Mainline Purchases (371,221,391 MMBtus); and (ii) Total Border and City-Gate Purchases (97,488,863 MMBtus).

The Total Gas Sale Volumes is comprised of gas sales and their corresponding volumes: (i) Mainline (50,912,571 MMBtus); (ii) Border (19,869,194 MMBtus); (iii) SoCalGas City-Gate (23,435,764 MMBtus); and (iv) PG&E Topock (204,500 MMBtus). The Total Gas Sales Volumes of 94,422,029 MMBtus was subtracted from the Total Mainline and Border Purchases Volumes of 468,710,254 MMBtus to arrive at the figure of 374,288,225 MMBtus.

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<sup>14</sup> See Adv. Let. 4089 (filed March 22, 2010, effective April 21, 2010).

<sup>15</sup> See Appendix A, Secondary Market Revenue.

**TABLE 2-4**  
**Southern California Gas Company**  
**Actual Gas Costs Components**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Mainline Commodity Purchases	Volumes	Dollars
El Paso Permian	60,902,490	\$ 153,430,408
El Paso San Juan	149,383,695	376,725,292
Transwestern Permian	17,377,679	45,352,621
Transwestern San Juan	29,726,193	77,126,169
Kern River Pipeline	93,999,410	240,335,665
Enterprise-Waha	842,500	1,719,803
NOVA-AECO/NIT	18,987,424	37,328,203
GTN: Kingsgate/Malin/Stanfield	2,000	3,807
<b>Total Mainline</b>	<b>371,221,391</b>	<b>\$ 932,021,966</b>
<hr/>		
Border and City Gate Purchases		
Border	36,025,465	\$ 110,540,368
SoCalGas-City Gate	61,463,398	202,655,000
<b>Total Border</b>	<b>97,488,863</b>	<b>\$ 313,195,368</b>
<hr/>		
<b>Total Mainline and Border Purchase</b>	<b>468,710,254</b>	<b>\$ 1,245,217,334</b>
<hr/>		
Gas Sales (deducting)		
Mainline	(50,912,571)	\$ (128,887,577)
Border	(19,869,194)	(50,810,584)
SoCalGas- City Gate	(23,435,764)	(61,976,239)
PG&E Topock	(204,500)	(496,225)
<b>Total Gas Sales</b>	<b>(94,422,029)</b>	<b>\$ (242,170,625)</b>
<hr/>		
Other Revenues/Costs		
Net Secondary Market Revenue:		\$ (9,437,169)
GCIM Derivative Transactions		607,769
Off System Parking Fee		65,110
<b>Total Other Revenues/Costs</b>		<b>\$ (8,764,290)</b>
<hr/>		
<b>Total Commodity Costs</b>		<b>\$ 994,282,419</b>
<hr/>		
Interstate Reservation and Volumetric Transport Cost		
Interstate Volumetric Transport Costs		\$ 6,871,005
Reservation Charges		209,520,191
<b>Total Related Commodity Costs</b>		<b>\$ 216,391,196</b>
Rounding		\$ 1
<b>Total Volume and Costs</b>	<b>374,288,225</b>	<b>\$ 1,210,673,616</b>

## 2.5 Mainline and Border Gas Sales

Table 2-5 below provides a breakdown by pipeline for SoCalGas' gas sales. In addition, a compilation of gas sales and volumes for the period is shown in Appendix A.

SoCalGas reported gas purchases and sales transactions with affiliate Sempra Generation, SDG&E, and SoCalGas Capacity Products. SoCalGas reports that all purchases and sales were completed through arm's length transactions via brokerage firms.

<b>TABLE 2-5</b>		
<b>Southern California Gas Company</b>		
<b>Summary of Mainline and Border Sales</b>		
<b>GCIM Year 23</b>		
<b>April 1, 2016 Through March 31, 2017</b>		
<b>Mainline Pipelines</b>	<b>Sales</b>	<b>Volume (MMBtus)</b>
<b>El Paso Permian</b>	\$ (58,552,967)	(22,666,360)
<b>El Paso San Juan</b>	(61,246,518)	(24,207,469)
<b>Transwestern Permian</b>	(806,179)	(358,585)
<b>Transwestern San Juan</b>	(281,235)	(101,300)
<b>Kern River</b>	(2,719,786)	(1,005,627)
<b>Enterprise Waha</b>	(914,794)	(372,500)
<b>NOVA-AECO</b>	(3,664,437)	(19,593,300)
<b>GTN-Kingsgate/Stanfield/Malin</b>	(701,662)	(241,400)
<b>Total Mainline</b>	<b>\$ (128,887,578)</b>	<b>(68,546,541)</b>
<b>Border Pipelines</b>	<b>Sales</b>	<b>Volume (MMBtus)</b>
<b>Border</b>	\$ (50,810,584)	(19,869,194)
<b>SoCal City-Gate</b>	(61,976,239)	(23,435,764)
<b>PG&amp;E Topock</b>	(496,225)	(204,500)
<b>Total Border</b>	<b>\$ (113,283,048)</b>	<b>(43,509,458)</b>
<b>Total Sales to Volume</b>	<b>\$ (242,170,626)</b>	<b>(112,055,999)</b>

## 2.6 Interstate Volumetric Transport Costs

The volumetric transport costs are variable costs and based on the volume of interstate pipeline gas supplies delivered at the SoCal Border. The total interstate volumetric transportation costs for GCIM Year 23 are shown in Table 2-6.

The table shows the Summary of the Actual Pipeline Commodity Transported Costs: El Paso transport costs of \$5,319,904; Transwestern costs of \$828,117; Kern River costs of \$491,381; and Canadian Path costs of \$231,602. The total aggregate volumetric transport costs for the period were \$6,871,005.

**TABLE 2-6**  
**Southern California Gas Company**  
**Summary of Actual Pipeline Commodity Transport Costs**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

<b>Month</b>	<b>El Paso</b>	<b>Trans-western</b>	<b>Kern River</b>	<b>Canadian Path</b>	<b>Total Transport Cost</b>
<b>Apr-16</b>	\$ 427,418	\$ 52,826	\$ 40,681	\$ 22,911	\$ 543,837
<b>May-16</b>	\$ 427,221	\$ 55,098	\$ 42,317	\$ 22,907	\$ 547,544
<b>Jun-16</b>	\$ 475,369	\$ 52,702	\$ 40,787	\$ 22,164	\$ 591,021
<b>Jul-16</b>	\$ 450,973	\$ 54,913	\$ 40,604	\$ 23,159	\$ 569,649
<b>Aug-16</b>	\$ 450,730	\$ 55,258	\$ 42,314	\$ 18,161	\$ 566,462
<b>Sep-16</b>	\$ 384,811	\$ 51,989	\$ 40,917	\$ 17,575	\$ 495,293
<b>Oct-16</b>	\$ 454,126	\$ 54,594	\$ 41,237	\$ 17,475	\$ 567,431
<b>Nov-16</b>	\$ 432,256	\$ 83,009	\$ 39,855	\$ 16,919	\$ 572,039
<b>Dec-16</b>	\$ 465,876	\$ 102,779	\$ 48,701	\$ 18,156	\$ 635,511
<b>Jan-17</b>	\$ 460,722	\$ 101,763	\$ 45,839	\$ 18,186	\$ 626,510
<b>Feb-17</b>	\$ 450,688	\$ 78,962	\$ 36,914	\$ 16,010	\$ 582,575
<b>Mar-17</b>	\$ 439,712	\$ 84,225	\$ 31,215	\$ 17,980	\$ 573,133
<b>Total:</b>	<b>\$ 5,319,904</b>	<b>\$ 828,117</b>	<b>\$ 491,381</b>	<b>\$ 231,602</b>	<b>\$ 6,871,005</b>

## 2.7 Interstate Reservation Charges

Table 2-7 shows monthly reservation charges by pipeline for the GCIM Year 23 period. The El Paso Pipeline reservation charges were \$71,386,359; Transwestern Pipeline were \$12,767,715; Kern River Pipeline were \$31,843,254; and Canadian Path Pipeline were \$13,240,781. For GCIM Year 23, the contracting procedures for the interstate capacity purchase contracts remained unchanged. For the GCIM Year 23 period, Backbone Transport Service contracts totaled \$80,282,083. The Total Reservation Charges for the period were \$209,520,191.



**TABLE 2-7**  
**Southern California Gas Company**  
**Summary of Reservation Charges By Pipeline**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Month	El Paso	Trans-western	Kern River	Canadian Path	Backbone Transportation Service	Total Reservation Charges
Apr-16	\$ 5,644,519	\$ 858,000	\$ 2,602,075	\$ 1,094,417	\$ 4,292,307	\$14,491,318
May-16	\$ 5,656,792	\$ 886,600	\$ 2,688,811	\$ 1,107,022	\$ 4,405,014	\$14,744,239
Jun-16	\$ 5,644,519	\$ 858,000	\$ 2,602,075	\$ 1,092,454	\$ 4,297,364	\$14,494,412
Jul-16	\$ 5,644,519	\$ 886,600	\$ 2,688,811	\$ 1,104,292	\$ 4,532,663	\$14,856,884
Aug-16	\$ 5,713,930	\$ 886,600	\$ 2,688,811	\$ 1,120,199	\$ 4,432,777	\$14,842,317
Sep-16	\$ 5,644,519	\$ 858,000	\$ 2,602,075	\$ 1,101,578	\$ 4,880,353	\$15,086,525
Oct-16	\$ 5,644,519	\$ 886,600	\$ 2,658,041	\$ 1,113,800	\$ 5,149,339	\$15,452,299
Nov-16	\$ 6,262,868	\$ 1,239,977	\$ 2,565,098	\$ 1,093,600	\$ 6,223,510	\$17,385,053
Dec-16	\$ 6,415,634	\$ 1,575,809	\$ 2,902,321	\$ 1,111,923	\$ 7,095,664	\$19,101,351
Jan-17	\$ 6,362,583	\$ 1,392,909	\$ 2,787,567	\$ 1,117,194	\$ 12,958,905	\$24,619,158
Feb-17	\$ 6,493,972	\$ 1,157,311	\$ 2,400,203	\$ 1,071,957	\$ 11,041,724	\$22,165,167
Mar-17	\$ 6,257,985	\$ 1,281,309	\$ 2,657,367	\$ 1,112,345	\$ 10,972,461	\$22,281,468
<b>Total:</b>	<b>\$ 71,386,359</b>	<b>\$ 12,767,715</b>	<b>\$ 31,843,254</b>	<b>\$ 13,240,781</b>	<b>\$ 80,282,083</b>	<b>\$209,520,191</b>

## 2.8 Interstate Pipeline Utilization

In D.04-09-022, the Commission required SoCalGas to track each pipeline's utilization of capacity.<sup>16</sup> Table 2-8 provides an overview of SoCalGas' nominated capacity for each pipeline listed. Total Core Capacity for all the pipelines was 451,777,742 MMBtus and Total Nominated Capacity was 378,645,936 MMBtus. The difference between these two total amounts is the unutilized capacity of 73,131,806 MMBtus, which is adjusted from core capacity.

Regarding the interstate pipelines, SoCalGas reported El Paso at 71% capacity; Foothills Pipeline, Ltd at 99%; Gas Transmission Northwest Corp. at 99%; Kern River Gas Transmission at 98%; NOVA at 98% (Canadian Path); Pacific Gas and Electric pipeline at 98%; and Transwestern Pipeline Company at 92%. The Capacity Cut of 2,242,180 MMBtus, is subtracted from nominated capacity, which resulted in total Actual Volume delivered of 376,403,756 MMBtus.

<sup>16</sup> See *OIR*, D.04-09-022, 2004 Cal. PUC LEXIS 522, at \*140 (Ord. Para. 2) (dated Sept. 2, 2004).

**TABLE 2-8**  
**Southern California Gas Company**  
**Cumulative Core Capacity Utilization By Pipeline (In MMBtus)**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Pipeline	Core Capacity	Less: Nominated Capacity	Unutilized Capacity	Capacity Utilization Percentage	Nominated Capacity	Actual Volumes Received	Capacity Cut
El Paso Natural Gas Co	226,992,217	161,600,347	65,391,870	71%	161,600,347	160,833,905	766,442
Foothills PipeLines Ltd	19,644,264	19,376,106	268,158	99%	19,376,106	19,110,102	266,004
Gas Trans Northwest Corp	19,165,420	19,017,395	148,025	99%	19,017,395	18,730,537	286,858
Kern River Gas Trans Co	93,494,230	91,178,745	2,315,485	98%	91,178,745	90,880,147	298,598
NOVA Gas Trans Ltd	19,804,091	19,348,980	455,111	98%	19,348,980	19,348,979	1
Pacific Gas & Electric	18,955,180	18,609,226	345,954	98%	18,609,226	18,324,368	284,858
Transwesten Pipeline Co	53,722,340	49,515,137	4,207,203	92%	49,515,137	49,175,718	339,419
<b>Total:</b>	<b>451,777,742</b>	<b>378,645,936</b>	<b>73,131,806</b>	<b>84%</b>	<b>378,645,936</b>	<b>376,403,756</b>	<b>2,242,180</b>

## 2.9 Examination of the Purchased Gas Account

Table 2-9 provides a Purchased Gas Account (PGA) reconciliation of the GCIM gas commodity costs. The PGA is for utilities to balance the recorded cost of gas and the corresponding revenues from the sale of that gas. Total PGA commodity costs were \$1,012,766,510, and reported GCIM commodity costs for SoCalGas' gas portfolio purchases were \$993,674,654 (excluding hedging costs), which results in a variance of \$19,091,856. The variance consists of \$9,664,993 in costs excluded from the GCIM reported commodity costs and net Secondary Market Services revenue of \$9,437,169, which is unreported in the PGA gas costs. Other adjustments were for timing differences of \$10,307 recorded in fees and other costs.

**TABLE 2-9**  
**Southern California Gas Company**  
**PGA & GCIM Reconciliation of Commodity Cost**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Total PGA Commodity Costs	\$ 1,012,766,510
Total GCIM Commodity Costs	\$ 993,674,654
Variance:	\$ 19,091,856

**Reconciliation:**

Total PGA Commodity Cost	\$ 1,012,766,510
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**PGA Costs Excluded from GCIM:**

Playa del Rey & Aliso Production	0	
Borrego Springs LNG	73,962	
Realized (Gain)/Loss from OTC Deriv. Trans.	90,756	
Realized (Gain)/Loss from Exchange-Traded Deriv. Trans.	2,512,405	
Realized (Gain)/Loss from Foreign Currency Exchange (GST & Demand Charges)	(20,388)	
Carrying Costs of Storage Inventory	137,254	
Interruptible Storage Charges	0	
Transportation Chg in PGA Market Gas not in GCIM Commodity Cost (1.8.2)	6,871,004	
<b>Sub-Total PGA Excluded Costs:</b>		(9,664,993)

**GCIM Related Transactions Excluded from PGA:**

Net SMS Revenue	\$ (9,437,169)	
Timing differences for transaction fees and other gas costs excluded from GCIM	\$ 10,307	
<b>Sub-Total GCIM Costs Excluded in PGA:</b>		\$ (9,426,862)

**Total Reconciling Items:** \$ (19,091,855)

**Total PGA Commodity Cost :** \$ 993,674,655

**Rounding:** \$ (1)

**Less: GCIM Commodity Cost:** \$ 993,674,654

**Difference:** \$ -

In addition to the PGA audit, ORA conducted a sampling test by randomly selecting purchase invoice samples. SoCalGas provided copies of supporting documents and purchase invoices for the purpose of the verification. ORA traced the costs of these purchase invoices to the monthly statement and then to the annual report. ORA found that the selected purchase invoices reconciled with recorded amounts in the annual report.

## 2.10 Financial Derivatives

ORA performed a review of hedging transactions for financial derivative transactions reported in the PGA to confirm the appropriate GCIM calculation and to identify timing differences that were recognized within the GCIM period of April 1, 2016 through March 31, 2017.

Pursuant to D.10-01-023, twenty-five percent (25%) of winter hedging gains and losses were included in GCIM actual costs.<sup>17</sup> Table 2-10 shows the SoCalGas PGA Reconciliation of Financial Gains and Losses for reported NYMEX transactions and over-the-counter (OTC) cleared transactions, as well as OTC swaps. Associated transaction fees are also included based on the date of contract and net results may be a financial gain or loss. Transactions that result in gains and/or cash receipts are offset against losses. Other adjustments include reversal of fees from previous GCIM years.

Total financial hedging losses for the period were \$607,769, which consisted of a non-winter hedge gain of \$57,386 and a winter hedge loss of \$665,156. All non-winter hedge losses are included in the GCIM calculation. According to D.10-01-023, \$1,995,467 which represented the seventy-five percent of the winter hedge losses, is excluded from the GCIM and \$665,156 or twenty-five percent of winter hedging losses is included in the GCIM calculation.<sup>18</sup> ORA found that there was immaterial variance of \$75 in excluded winter hedge costs. In general, natural gas prices are determined through the interaction of two types of markets: cash/financial markets and physical quantities of natural gas. The market involves the purchase and sale of both when the physical quantities and financial instrument prices are connected to the price of natural gas in the physical market.

Publishers of industry newsletters such as *Platts* and *Natural Gas Intelligence*, take surveys of the price of transactions at a hub or city-gate, where natural gas is sold or delivered. The surveyed prices are calculated into an average, which then results in an index of those prices. These index prices are used to base the price of gas at the hub, city-gate, or a specified location.

For hedging natural gas commodities, the most commonly used financial instruments are OTC and exchange derivatives often referred to as options and swaps. These financial instruments are traded in the form of standardized contracts. This standardization provides ease of transfer and the identification of prices.<sup>19</sup> These hedging transactions will generally incur related transaction fees for the purchase of the hedging contract, such as broker and premium fees.

SoCalGas claims to regularly assess and review on a real time basis natural gas market fundamentals. Based on its review and assessment, the utility uses price trends, market fundamentals, and/or risk avoidance to optimize hedge transactions. To forecast

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<sup>17</sup> OIR, D.10-01-023, 2010 Cal. PUC LEXIS 5, at \*99 (Ord. Para. 4) (Jan. 25, 2010).

<sup>18</sup> See ORA GCIM Year 23 Report, Exhibits, Hedge Detail.

<sup>19</sup> U.S. Senate Permanent Committee on Investigations: Excessive Speculation in the Natural Gas Market, July 9, 2007.

natural gas prices, SoCalGas uses current future prices and basis values provided by Intercontinental Exchange (ICE) and/or NYMEX.

<b>TABLE 2-10</b> <b>Southern California Gas Company</b> <b>PGA Reconciliation-Financial Gains &amp; Losses</b> <b>GCIM Year 23</b> <b>April 1, 2016 Through March 31, 2017</b>
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NYMEX Traded/Cleared Transactions	GCIM	Recorded PGA	Variance
Exchange Traded Transactions (Gains)/Losses	\$ 573,201		
Exchange Traded Transactions Costs	\$ 11,643		
Total:	\$ 584,844	\$ 2,512,405	\$ 1,927,561
<b>OTC Swaps</b>			
OTC Swaps (Gains)/Losses	\$ 22,500		
OTC Swap Transaction Costs	\$ 425		
Total:	\$ 22,925	\$ 90,756	\$ 67,831
<b>Year 23 Financial (Gain)/Losses:</b>	<b>\$ 607,769</b>	<b>\$ 2,603,161</b>	<b>\$ 1,995,392</b>
<b>Reconciliation:</b>			
Reconciled Derivative PGA: 75% excluded Winter Hedge from GCIM			<u>\$ 1,995,392</u>
ORA's 75% excluded Winter Hedge From GCIM			<u>\$ 1,995,467</u>
Variance			<u>\$ (75)</u>

## 2.11 Winter Hedges

For GCIM Year 23, SoCalGas reported \$2,660,622 of winter hedging net losses. Table 2-11 shows twenty-five percent (25%) of the net losses at \$665,156, which is included in the GCIM. ORA confirmed that \$1,995,467 or seventy-five percent (75%) of total winter hedge losses were excluded from the GCIM and included in the PGA for GCIM Year 23. These gains or losses are directly allocated to core customers for the period. In addition, SoCalGas reported winter hedging transactions for OTC swap/option gains and losses; contract costs that include premiums; and transaction costs for broker fees.

For purposes of reconciliation, ORA determined related hedging costs based on the contract date. If the contract date is beyond March 31, it is excluded from the GCIM Year 23 reporting period.

**TABLE 2-11**  
**Southern California Gas Company**  
**Winter Financial Derivatives (Gains) Losses**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Month	Winter Hedge (Gain)/Losses Included in GCIM	Winter Hedge Fee Included in GCIM	Winter Hedge (Gain)/Losses Excluded From GCIM	Winter Hedge Fee Excluded From GCIM	Winter Hedge Total
Apr-16	\$ -	\$ 131	\$ -	\$ 394	\$ 525
May-16	\$ -	\$ (96)	\$ -	\$ (288)	\$ (384)
Jun-16	\$ -	\$ -	\$ -	\$ -	\$ -
Jul-16	\$ -	\$ -	\$ -	\$ -	\$ -
Aug-16	\$ -	\$ 267	\$ -	\$ 802	\$ 1,069
Sep-16	\$ 236,813	\$ 875	\$ 710,438	\$ 2,626	\$ 950,752
Oct-16	\$ -	\$ 439	\$ -	\$ 1,315	\$ 1,754
Nov-16	\$ 100,950	\$ 1,023	\$ 302,850	\$ 3,069	\$ 407,892
Dec-16	\$ 1,337	\$ 422	\$ 4,011	\$ 1,266	\$ 7,035
Jan-17	\$ 111,096	\$ 227	\$ 333,289	\$ 682	\$ 445,294
Feb-17	\$ 103,714	\$ (46)	\$ 311,141	\$ (138)	\$ 414,671
Mar-17	\$ 107,996	\$ 7	\$ 323,989	\$ 22	\$ 432,014
<b>Totals:</b>	<b>\$ 661,906</b>	<b>\$ 3,249</b>	<b>\$ 1,985,717</b>	<b>\$ 9,750</b>	<b>\$ 2,660,622</b>

<b>Hedge (Gain)/Loss</b>	<b>661,906</b>	<b>1,985,717</b>
<b>Fee</b>	<b>3,249</b>	<b>9,750</b>
<b>Rounding:</b>	<b>1</b>	<b>-</b>
<b>25% Winter Hedge Included in GCIM:</b>	<b>665,156</b>	<b>75% Winter Hedge Excluded From GCIM:</b>
		<b>1,995,467</b>

## 2.12 Review of Secondary Market Services Revenues

SoCalGas manages its retail core using its assets of storage inventory, injection, withdrawal rights, and core supplies and by applying these assets to Secondary Market Services (SMS). In particular, SoCalGas generates revenue by using core assets to execute SMS transactions and fees that are based on market conditions. When SoCalGas management determines that core assets are not directly needed to meet core customer demand and reliability, it will utilize SMS transactions to offset core gas costs. For GCIM Year 23, SMS revenue totaled \$10,555,675 less \$1,118,506 in overhead costs which results in a net revenue of \$9,437,169.

**TABLE 2-12**  
**Southern California Gas Company**  
**Summary of Secondary Market Service Revenues**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

Month	SMS Revenue	Less: Overhead	Net Revenues
Apr-16	\$ (2,706,246)	\$ 71,815	\$ (2,634,431)
May-16	\$ (1,903,777)	\$ 343,016	\$ (1,560,761)
Jun-16	\$ (22,863)	\$ 81,923	\$ 59,061
Jul-16	\$ (6,268)	\$ 53,045	\$ 46,777
Aug-16	\$ (69,043)	\$ 76,039	\$ 6,996
Sep-16	\$ (6,064)	\$ 78,336	\$ 72,272
Oct-16	\$ (23,250)	\$ 69,417	\$ 46,167
Nov-16	\$ (1,700,493)	\$ 81,154	\$ (1,619,339)
Dec-16	\$ (122,657)	\$ 60,693	\$ (61,964)
Jan-17	\$ (224,156)	\$ 60,681	\$ (163,475)
Feb-17	\$ (62,150)	\$ 67,111	\$ 4,961
Mar-17	\$ (3,708,709)	\$ 75,275	\$ (3,633,434)
Totals:	\$ (10,555,675)	\$ 1,118,506	\$ (9,437,169)

### 2.13 SoCalGas Core Storage Inventory Targets

In D.06-10-029, the Commission approved a Joint Recommendation by ORA, TURN and SoCalGas to modify the utility's management and use of mid-season gas storage capacity for core customers.<sup>20</sup> This recommendation requires more gas to enter storage during the summer months for core customer use during the winter heating season. This decision requires SoCalGas to obtain agreement from ORA and TURN for mid-season inventory targets. These targets must be maintained or an agreement from ORA and TURN is needed if changes to inventory storage targets are made by SoCalGas. In either case, these changes are reflected in the GCIM.

In D.08-12-020, the Commission adopted Phase 1 of SoCalGas' 2009 Biennial Cost Allocation Proceeding, (BCAP) Settlement Agreement, expanding gas storage by 7 Bcf during the period of 2009 to 2014. Core storage inventory would receive an additional 4 Bcf starting 2009. The Settlement Agreement required incremental inventory capacity to increase by 1.0 Bcf each year starting in April 1, 2010 until April 1, 2013.

<sup>20</sup> SoCalGas, D.06-10-029, 2006 Cal. PUC LEXIS 398, at \*3 (Joint Recommendation adopted and approved) (dated Oct. 19, 2006).

SoCalGas filed Advice Letter 4436 on December 14, 2012, which was approved by the Commission on January 13, 2013. This update changed the storage target from 79 Bcf to 82 Bcf with variance allowance from +5/-2 Bcf to +0/-2 Bcf.

On May 29, 2013, SoCalGas filed Advice Letter 4499, which updated the core inventory target from 82 Bcf to 83 Bcf +0/-2 Bcf. The utility would retain the core inventory target until further notice in a filing advice letter.

For the mid-season storage, ORA's review of SoCalGas' inventory records show that the assigned core storage inventory level as of July 31, 2016, was 47 Bcf, which was composed of 28 Bcf of purchased core inventory and 19 Bcf of Secondary Market Services (net park position). Thus the mid-season target was not achieved due to deviation of mid-season storage target by SoCalGas as set forth in Advice Letter 4981.

ORA's concern with SoCalGas' deviation from 47 Bcf mid-season storage target is that depending on the market conditions, lowering the mid-season storage target could lead to higher gas costs when SoCalGas needs to buy large amount of gas to fill the gas storage later in the season. Core customers could be exposed to gas price volatility which would result in higher gas costs than in the pre-summer season. The lower mid-season storage may also jeopardize reliability in Southern California especially with Aliso Canyon operating at reduced capacity for the foreseeable future. Therefore ORA recommends that SoCalGas meet with ORA<sup>21</sup> in the event that SoCalGas anticipates not meeting its physical mid-season storage target of 47 Bcf.

The annual storage inventory target on November 1 was 83 Bcf with a variance allowance of +0/-2 Bcf. As of October 31, 2016, SoCalGas reported the annual storage inventory was at 53.1 Bcf, which is below the storage inventory target. The data shows that SoCalGas did not meet the core inventory target requirements due to reduced storage capacities.

The reduced winter storage capacities did not raise reliability issues for core customers in the current GCIM period, but it did result in additional planned gas purchases and transportations capacity to meet the core demand for the winter period.<sup>22</sup>

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<sup>21</sup> These meetings should commence at the start of the gas injection season.

<sup>22</sup> See SoCalGas Data Request Response #16.2, dated Aug 4, 2017



**TABLE 2-13**  
**Southern California Gas Company**  
**Core Storage Inventory for Summer and Winter Targets**  
**GCIM Year 23**  
**April 1, 2016 Through March 31, 2017**

	7/31/16	10/31/16
<b>Bcf Target</b>	47	83 +0/-2
<b>Core Physical Inventory</b>	47.0	50.1
<b>Less:</b>		
<b>Secondary Market Services</b>	19.0	-
<b>Add:</b>		
<b>CAT</b>	-	3.0
<b>Total Core Storage Inventory</b>	<u>28.0</u>	<u>53.1</u>

Note: CAT inventory only excluded in July

## 2.14 Interstate Capacity Procurement

In Advice Letter 4679, effective September 6, 2014, the Commission authorized SoCalGas to update its Capacity Planning Range, which was based on the California Gas Report for 2014.<sup>23</sup> The filing was to comply with D.04-09-022 and Advice Letter 3969 to update SoCalGas and SDG&E's combined portfolio capacity winter and non-winter seasons. Table 2-14 provides a summary of the minimum and maximum capacity values by season for the reporting period.

<b>TABLE 2-14</b>		
<b>Southern California Gas Company</b>		
<b>Capacity Ranges</b>		
<b>GCIM Year 23</b>		
<b>April 1, 2016 Through March 31, 2017</b>		
	<b>Minimum Capacity</b>	<b>Maximum Capacity</b>
<b>Non-Winter (April to October)</b>	988 MDth/d	1,318 MDth/d
<b>Winter (November to March)</b>	1,098 MDth/d	1,318 MDth/d

The update enabled SoCalGas to hold firm interstate pipeline capacity at no less than 90% of its forecasted core average daily load during the spring and summer months, and no less than 100% during the fall and winter months. This established a minimum firm capacity for the period of April 2016 to October 2016 at 989 MDth/d, and

<sup>23</sup> See Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. Prince, Dir. of Reg. Affairs, SoCalGas (Sept 5, 2014, approving and made effective SoCalGas, Adv. Letr 4679, dated Aug 7, 2014).

1,098 MDth/d for November 2016 to March 2017. SoCalGas' GCIM Year 23 Application (A.17-06-016) in Appendix C reports actual capacity performance.

Proportionally, SoCalGas maintained a gas supply portfolio consisting of approximately 79% of long-term supply agreements; 23% month-to-month base load agreements; and -2% daily transactions as result of net sales.<sup>24</sup>

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<sup>24</sup> See *SoCalGas*, A.17-06-016 at 3–4.

**APPENDIX A**  
**EXHIBITS FOR ORA REPORT**

2-1  
**Southern California Gas Company**  
**Total Actual Cost Summary**  
**GCIM Year 23**  
**April 1, 2016 through March 31, 2017**

	Actual Commodity Cost	Transportation Cost	Reservation Charge	Total Actual Cost
<b>Apr-16</b>	\$ 25,206,957	\$ 543,837	\$ 14,491,318	\$ 40,242,111
<b>May-16</b>	\$ 35,158,171	\$ 547,544	\$ 14,744,239	\$ 50,449,954
<b>Jun-16</b>	\$ 34,992,483	\$ 591,021	\$ 14,494,412	\$ 50,077,915
<b>Jul-16</b>	\$ 81,782,429	\$ 569,649	\$ 14,856,884	\$ 97,208,962
<b>Aug-16</b>	\$ 77,153,638	\$ 566,462	\$ 14,842,317	\$ 92,562,418
<b>Sep-16</b>	\$ 76,298,483	\$ 495,293	\$ 15,086,525	\$ 91,880,300
<b>Oct-16</b>	\$ 69,392,589	\$ 567,431	\$ 15,452,299	\$ 85,412,319
<b>Nov-16</b>	\$ 67,811,321	\$ 572,039	\$ 17,385,053	\$ 85,768,413
<b>Dec-16</b>	\$ 155,444,616	\$ 635,511	\$ 19,101,351	\$ 175,181,479
<b>Jan-17</b>	\$ 198,476,230	\$ 626,510	\$ 24,619,158	\$ 223,721,898
<b>Feb-17</b>	\$ 128,410,806	\$ 582,575	\$ 22,165,167	\$ 151,158,548
<b>Mar-17</b>	\$ 44,154,698	\$ 573,133	\$ 22,281,468	\$ 67,009,299
<b>Total</b>	\$ 994,282,420	\$ 6,871,005	\$ 209,520,191	\$ 1,210,673,616

2-2

Southern California Gas Company  
Benchmark Cost Summary  
GCIM Year 23

April 1, 2016 through March 31, 2017

	<b>Benchmark Commodity Cost</b>	<b>Transportation Cost</b>	<b>Reservation Charge</b>	<b>Total Benchmark Cost</b>
<b>Apr-16</b>	\$ 28,903,486	\$ 543,837	\$ 14,491,318	\$ 43,938,641
<b>May-16</b>	\$ 36,589,553	\$ 547,544	\$ 14,744,239	\$ 51,881,336
<b>Jun-16</b>	\$ 37,543,980	\$ 591,021	\$ 14,494,412	\$ 52,629,413
<b>Jul-16</b>	\$ 83,299,837	\$ 569,649	\$ 14,856,884	\$ 98,726,370
<b>Aug-16</b>	\$ 77,982,378	\$ 566,462	\$ 14,842,317	\$ 93,391,157
<b>Sep-16</b>	\$ 76,770,390	\$ 495,293	\$ 15,086,525	\$ 92,352,207
<b>Oct-16</b>	\$ 69,174,821	\$ 567,431	\$ 15,452,299	\$ 85,194,552
<b>Nov-16</b>	\$ 68,520,659	\$ 572,039	\$ 17,385,053	\$ 86,477,751
<b>Dec-16</b>	\$ 156,493,835	\$ 635,511	\$ 19,101,351	\$ 176,230,697
<b>Jan-17</b>	\$ 201,369,978	\$ 626,510	\$ 24,619,158	\$ 226,615,646
<b>Feb-17</b>	\$ 135,361,613	\$ 582,575	\$ 22,165,167	\$ 158,109,355
<b>Mar-17</b>	\$ 49,426,382	\$ 573,133	\$ 22,281,468	\$ 72,280,983
<b>Total</b>	\$ 1,021,436,913	\$ 6,871,005	\$ 209,520,191	\$ 1,237,828,108

2-3  
Southern California Gas Company  
Actual Commodity Purchases Costs  
GCIM Year 23

	April 1, 2016 through March 31, 2017													
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total	
Mainline Purchases	\$ 42,977,789	\$ 52,011,648	\$ 52,772,308	\$ 73,548,071	\$ 78,302,258	\$ 72,051,856	\$ 78,952,967	\$ 81,334,960	\$ 108,255,633	\$ 128,154,164	\$ 92,112,874	\$ 71,547,437	\$ 932,021,966	
Border Purchases	\$ 1,144,009	\$ 264,332	\$ 4,001,025	\$ 19,976,200	\$ 14,748,193	\$ 20,830,923	\$ 1,458,216	\$ 13,118,769	\$ 66,153,688	\$ 89,669,746	\$ 69,138,021	\$ 12,692,246	\$ 313,195,368	
<b>Total Commodity Purchases</b>	<b>\$ 44,121,797</b>	<b>\$ 52,275,980</b>	<b>\$ 56,773,333</b>	<b>\$ 93,524,272</b>	<b>\$ 93,050,451</b>	<b>\$ 92,882,779</b>	<b>\$ 80,411,184</b>	<b>\$ 94,453,729</b>	<b>\$ 174,409,321</b>	<b>\$ 217,823,910</b>	<b>\$ 161,250,895</b>	<b>\$ 84,239,684</b>	<b>\$ 1,245,217,334</b>	
Mainline Sales	\$ (5,366,532)	\$ (6,849,508)	\$ (6,299,261)	\$ (7,917,853)	\$ (11,971,072)	\$ (10,958,780)	\$ (7,511,253)	\$ (11,388,039)	\$ (16,880,788)	\$ (19,294,634)	\$ (9,528,466)	\$ (14,921,389)	\$ (128,887,577)	
Border Sales	\$ (10,916,820)	\$ (8,713,286)	\$ (15,553,778)	\$ (3,845,130)	\$ (3,866,712)	\$ (5,926,951)	\$ (3,556,160)	\$ (13,725,239)	\$ (2,084,801)	\$ 119	\$ (23,447,036)	\$ (21,647,252)	\$ (113,283,047)	
<b>Total Commodity Sales</b>	<b>\$ (16,283,352)</b>	<b>\$ (15,562,794)</b>	<b>\$ (21,853,039)</b>	<b>\$ (11,762,983)</b>	<b>\$ (15,837,785)</b>	<b>\$ (16,885,732)</b>	<b>\$ (11,067,413)</b>	<b>\$ (25,113,278)</b>	<b>\$ (18,965,590)</b>	<b>\$ (19,294,515)</b>	<b>\$ (32,975,502)</b>	<b>\$ (36,568,640)</b>	<b>\$ (242,170,625)</b>	
Secondary Market Service Revenue	\$ (2,634,431)	\$ (1,560,761)	\$ 59,061	\$ 46,777	\$ 6,996	\$ 72,272	\$ 46,167	\$ (1,619,339)	\$ (61,964)	\$ (163,475)	\$ 4,961	\$ (3,633,434)	\$ (9,437,169)	
Financial (Gains)/Losses	\$ 2,942	\$ 5,746	\$ 13,129	\$ (25,637)	\$ (72,294)	\$ 229,163	\$ 2,651	\$ 90,208	\$ 48,850	\$ 97,710	\$ 98,212	\$ 117,089	\$ 607,769	
Other Costs	\$ -	\$ -	\$ -	\$ -	\$ 6,270	\$ -	\$ -	\$ -	\$ 14,000	\$ 12,600	\$ 32,240	\$ -	\$ 65,110	
<b>Actual Commodity Purchase Cost</b>	<b>\$ 25,206,957</b>	<b>\$ 35,158,171</b>	<b>\$ 34,992,483</b>	<b>\$ 81,782,429</b>	<b>\$ 77,153,638</b>	<b>\$ 76,298,483</b>	<b>\$ 69,392,589</b>	<b>\$ 67,811,321</b>	<b>\$ 155,444,616</b>	<b>\$ 198,476,230</b>	<b>\$ 128,410,806</b>	<b>\$ 44,154,698</b>	<b>\$ 994,282,420</b>	

2-3a  
Southern California Gas Company  
Mainline Purchase Summary  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
El Paso - Permian	\$ 7,133,010	\$ 8,419,168	\$ 7,872,521	\$ 12,636,201	\$ 13,456,657	\$ 13,341,671	\$ 13,853,089	\$ 13,150,226	\$ 15,352,190	\$ 22,053,193	\$ 13,793,613	\$ 12,368,869	\$ 153,430,408
El Paso - San Juan	\$ 17,496,656	\$ 21,769,953	\$ 22,624,465	\$ 30,199,271	\$ 33,038,105	\$ 27,533,713	\$ 31,812,459	\$ 33,024,313	\$ 43,707,030	\$ 47,157,631	\$ 38,066,408	\$ 30,295,287	\$ 376,725,292
Transwestern - Permian	\$ 1,352,550	\$ 1,666,701	\$ 1,573,163	\$ 2,349,266	\$ 2,337,395	\$ 2,298,000	\$ 2,521,720	\$ 5,489,219	\$ 6,477,529	\$ 7,985,706	\$ 6,226,498	\$ 5,074,872	\$ 45,352,621
Transwestern - San Juan	\$ 3,643,325	\$ 4,022,765	\$ 3,903,806	\$ 5,753,352	\$ 5,672,014	\$ 5,615,049	\$ 6,019,478	\$ 5,991,713	\$ 11,165,383	\$ 12,296,935	\$ 7,113,957	\$ 5,928,391	\$ 77,126,169
Kern River	\$ 11,770,170	\$ 14,217,343	\$ 14,072,681	\$ 19,663,927	\$ 20,146,735	\$ 20,339,667	\$ 21,446,635	\$ 20,030,619	\$ 27,854,075	\$ 33,092,000	\$ 22,846,829	\$ 14,854,983	\$ 240,335,665
Enterprise - Waha	\$ -	\$ -	\$ 1,089,000	\$ -	\$ 630,803	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,719,803
NOVA-AECO/NIT	\$ 1,582,077	\$ 1,915,717	\$ 1,636,672	\$ 2,946,054	\$ 3,020,550	\$ 2,923,757	\$ 3,299,585	\$ 3,645,062	\$ 3,699,427	\$ 5,568,699	\$ 4,065,569	\$ 3,025,036	\$ 37,328,203
GTN-Kingsgate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN-Stanfield	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN-Malin	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,807	\$ -	\$ -	\$ -	\$ -	\$ 3,807
<b>Total Mainline Purchases</b>	<b>\$ 42,977,789</b>	<b>\$ 52,011,648</b>	<b>\$ 52,772,308</b>	<b>\$ 73,548,071</b>	<b>\$ 78,302,258</b>	<b>\$ 72,051,856</b>	<b>\$ 78,952,967</b>	<b>\$ 81,334,960</b>	<b>\$ 108,255,633</b>	<b>\$ 128,154,164</b>	<b>\$ 92,112,874</b>	<b>\$ 71,547,437</b>	<b>\$ 932,021,966</b>

2-3b  
 Southern California Gas Company  
 Border and Citygate Purchase Summary  
 GCIM Year 23  
 April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Border Purchase	\$ 990,885	\$ 84,970	\$ 1,155,522	\$ 4,839,541	\$ 7,138,969	\$ 1,039,907	\$ 1,165,048	\$ 5,548,473	\$ 19,866,307	\$ 33,927,669	\$ 31,529,884	\$ 3,253,194	\$ 110,540,368
SoCal Citygate	\$ 153,123	\$ 179,363	\$ 2,845,503	\$ 15,136,660	\$ 7,609,224	\$ 19,791,016	\$ 293,168	\$ 7,570,297	\$ 46,287,380	\$ 55,742,077	\$ 37,608,137	\$ 9,439,053	\$ 202,655,000
<b>Total Border and Citygate Purchases</b>	<b>\$ 1,144,009</b>	<b>\$ 264,332</b>	<b>\$ 4,001,025</b>	<b>\$ 19,976,200</b>	<b>\$ 14,748,193</b>	<b>\$ 20,830,923</b>	<b>\$ 1,458,216</b>	<b>\$ 13,118,769</b>	<b>\$ 66,153,688</b>	<b>\$ 89,669,746</b>	<b>\$ 69,138,021</b>	<b>\$ 12,692,246</b>	<b>\$ 313,195,368</b>



2-3c  
Southern California Gas Company  
Mainline Sale Summary  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
El Paso - Permian	\$ (2,635,392)	\$ (3,610,351)	\$ (3,486,709)	\$ (3,755,388)	\$ (4,631,436)	\$ (5,067,306)	\$ (3,097,751)	\$ (1,580,642)	\$ (14,640,597)	\$ (8,107,294)	\$ (1,192,872)	\$ (6,747,229)	\$ (58,552,967)
El Paso - San Juan	\$ (2,428,987)	\$ (2,635,549)	\$ (1,412,093)	\$ (3,606,790)	\$ (7,194,698)	\$ (5,572,430)	\$ (4,226,442)	\$ (9,614,216)	\$ (1,720,124)	\$ (10,121,418)	\$ (6,264,220)	\$ (6,449,551)	\$ (61,246,518)
Transwestern - Permian	\$ (276,983)	\$ -	\$ (11,687)	\$ -	\$ -	\$ (79,193)	\$ -	\$ (7,076)	\$ (68,128)	\$ -	\$ (4,183)	\$ (358,931)	\$ (806,179)
Transwestern - San Juan	\$ -	\$ -	\$ -	\$ (26,500)	\$ -	\$ (132,650)	\$ -	\$ (18,498)	\$ (34,155)	\$ -	\$ -	\$ (69,432)	\$ (281,235)
Kern River	\$ -	\$ (9,500)	\$ (402,828)	\$ (220,778)	\$ -	\$ -	\$ -	\$ (14,078)	\$ (130,040)	\$ -	\$ (1,054,745)	\$ (887,818)	\$ (2,719,786)
Enterprise - Waha	\$ -	\$ -	\$ (887,799)	\$ -	\$ (26,995)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (914,794)
NOVA-AECO/NIT	\$ (25,171)	\$ (594,108)	\$ (98,145)	\$ (308,397)	\$ (30,951)	\$ (107,202)	\$ (187,060)	\$ (153,531)	\$ (26,403)	\$ (1,065,922)	\$ (1,012,447)	\$ (55,100)	\$ (3,664,437)
GTN-Kingsgate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN-Stanfield	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN-Malin	\$ -	\$ -	\$ -	\$ -	\$ (86,993)	\$ -	\$ -	\$ -	\$ (261,342)	\$ -	\$ -	\$ (353,328)	\$ (701,662)
<b>Total Mainline Sales</b>	<b>\$ (5,366,532)</b>	<b>\$ (6,849,508)</b>	<b>\$ (6,299,261)</b>	<b>\$ (7,917,853)</b>	<b>\$ (11,971,072)</b>	<b>\$ (10,958,780)</b>	<b>\$ (7,511,253)</b>	<b>\$ (11,388,039)</b>	<b>\$ (16,880,788)</b>	<b>\$ (19,294,634)</b>	<b>\$ (9,528,466)</b>	<b>\$ (14,921,389)</b>	<b>\$ (128,887,577)</b>

2-3d

Southern California Gas Company  
 Border and Citygate Sale Summary  
 GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Border Sales	\$ (2,758,841)	\$ (3,048,840)	\$ (5,680,283)	\$ (1,852,914)	\$ (222,517)	\$ (4,698,776)	\$ (1,011,690)	\$ (6,990,409)	\$ (633,059)	\$ -	\$ (14,531,370)	\$ (9,381,886)	\$ (50,810,584)
SoCal Citygate Sales	\$ (8,157,979)	\$ (5,664,446)	\$ (9,873,495)	\$ (1,992,216)	\$ (3,644,196)	\$ (1,228,175)	\$ (2,120,708)	\$ (6,662,367)	\$ (1,451,743)	\$ 119	\$ (8,915,667)	\$ (12,265,366)	\$ (61,976,239)
PG&E- Topock Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (423,762)	\$ (72,463)	\$ -	\$ -	\$ -	\$ -	\$ (496,225)
<b>Total Border and Citygate Sales</b>	<b>\$ (10,916,820)</b>	<b>\$ (8,713,286)</b>	<b>\$ (15,553,778)</b>	<b>\$ (3,845,130)</b>	<b>\$ (3,866,712)</b>	<b>\$ (5,926,951)</b>	<b>\$ (3,556,160)</b>	<b>\$ (13,725,239)</b>	<b>\$ (2,084,801)</b>	<b>\$ 119</b>	<b>\$ (23,447,036)</b>	<b>\$ (21,647,252)</b>	<b>\$ (113,283,047)</b>

2-3e

Southern California Gas Company  
Secondary Market Service Revenue  
GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Secondary Market Service Revenue	\$ (2,706,246)	\$ (1,903,777)	\$ (22,863)	\$ (6,268)	\$ (69,043)	\$ (6,064)	\$ (23,250)	\$ (1,700,493)	\$ (122,657)	\$ (224,156)	\$ (62,150)	\$ (3,708,709)	\$ (10,555,675)
Overhead Cost	\$ 71,815	\$ 343,016	\$ 81,923	\$ 53,045	\$ 76,039	\$ 78,336	\$ 69,417	\$ 81,154	\$ 60,693	\$ 60,681	\$ 67,111	\$ 75,275	\$ 1,118,506
Net Secondary Market Service Revenue	\$ (2,634,431)	\$ (1,560,761)	\$ 59,061	\$ 46,777	\$ 6,996	\$ 72,272	\$ 46,167	\$ (1,619,339)	\$ (61,964)	\$ (163,475)	\$ 4,961	\$ (3,633,434)	\$ (9,437,169)

2-3f  
 Southern California Gas Company  
 Off-System Parking Fee  
 GCIM Year 23  
 April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Off System Parking Fee	\$ -	\$ -	\$ -	\$ -	\$ 6,270	\$ -	\$ -	\$ -	\$ 14,000	\$ 12,600	\$ 32,240	\$ -	\$ 65,110
Total	\$ -	\$ -	\$ -	\$ -	\$ 6,270	\$ -	\$ -	\$ -	\$ 14,000	\$ 12,600	\$ 32,240	\$ -	\$ 65,110

## 2-3g

**Southern California Gas Company**  
**Total Financial Derivatives Summary**  
**GCIM Year 23**

April 1, 2016 through March 31, 2017

	<b>NYMEX &amp; OTC Cleared Losses/(Gains)</b>	<b>NYMEX &amp; OTC Clear Transaction Costs</b>	<b>OTC Swap Losses/(Gains)</b>	<b>OTC Swap Transaction Cost</b>	<b>Total Financial Cost/(Gain)</b>
<b>Apr-16</b>	\$ 1,875	\$ 1,067	\$ -	\$ -	\$ 2,942
<b>May-16</b>	\$ 5,231	\$ 515	\$ -	\$ -	\$ 5,746
<b>Jun-16</b>	\$ 11,813	\$ 1,316	\$ -	\$ -	\$ 13,129
<b>Jul-16</b>	\$ (26,893)	\$ 1,255	\$ -	\$ -	\$ (25,637)
<b>Aug-16</b>	\$ (73,444)	\$ 1,150	\$ -	\$ -	\$ (72,294)
<b>Sep-16</b>	\$ 205,500	\$ 1,163	\$ 22,500	\$ -	\$ 229,163
<b>Oct-16</b>	\$ 1,356	\$ 1,201	\$ -	\$ 94	\$ 2,651
<b>Nov-16</b>	\$ 88,388	\$ 1,784	\$ -	\$ 37	\$ 90,208
<b>Dec-16</b>	\$ 48,174	\$ 665	\$ -	\$ 10	\$ 48,850
<b>Jan-17</b>	\$ 96,953	\$ 548	\$ -	\$ 210	\$ 97,710
<b>Feb-17</b>	\$ 98,114	\$ 98	\$ -	\$ -	\$ 98,212
<b>Mar-17</b>	\$ 116,134	\$ 880	\$ -	\$ 75	\$ 117,089
<b>Total</b>	\$ 573,201	\$ 11,643	\$ 22,500	\$ 425	\$ 607,769
				Recorded:	\$ 607,769
				Variance	\$ -

2-3h  
Southern California Gas Company  
Hedge Detail  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	Non-Winter Hedge						25% Winter Hedge						Total
	NYMEX Option	OTC Clear Option			Exchange Traded	Financial Swap Broker	NYMEX Option	OTC Cleared	OTC Clear Option	Future	Exchanged Traded	Financial Swap	
	Premiums	OTC Cleared Swaps	Premiums	Future			Premiums	Swaps	Premiums				
(Gain)/Loss	(Gain)/Loss	(Gain)/Loss	(Gain)/Loss	Broker Fee	Fee	(Gain)/Loss	(Gain)/Loss	(Gain)/Loss	(Gain)/Loss	Broker Fee	Broker Fee		
Apr-16	\$ -	\$ 1,875	\$ -	\$ -	\$ 936	\$ -	\$ -	\$ -	\$ -	\$ 131	\$ -	\$ 2,942	
May-16	\$ -	\$ 5,231	\$ -	\$ -	\$ 611	\$ -	\$ -	\$ -	\$ -	\$ (96)	\$ -	\$ 5,746	
Jun-16	\$ -	\$ 11,813	\$ -	\$ -	\$ 1,316	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,129	
Jul-16	\$ -	\$ (26,893)	\$ -	\$ -	\$ 1,255	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (25,637)	
Aug-16	\$ -	\$ (73,444)	\$ -	\$ -	\$ 882	\$ -	\$ -	\$ -	\$ -	\$ 267	\$ -	\$ (72,294)	
Sep-16	\$ -	\$ (8,813)	\$ -	\$ -	\$ 288	\$ -	\$ 214,313	\$ 22,500	\$ -	\$ 875	\$ -	\$ 229,163	
Oct-16	\$ -	\$ 1,356	\$ -	\$ -	\$ 782	\$ 75	\$ -	\$ -	\$ -	\$ 420	\$ 19	\$ 2,651	
Nov-16	\$ -	\$ (12,563)	\$ -	\$ -	\$ 798	\$ -	\$ 100,950	\$ -	\$ -	\$ 986	\$ 37	\$ 90,208	
Dec-16	\$ -	\$ 46,838	\$ -	\$ -	\$ 253	\$ -	\$ 1,337	\$ -	\$ -	\$ 412	\$ 10	\$ 48,850	
Jan-17	\$ -	\$ (14,144)	\$ -	\$ -	\$ 390	\$ 140	\$ 111,096	\$ -	\$ -	\$ 157	\$ 70	\$ 97,710	
Feb-17	\$ -	\$ (5,600)	\$ -	\$ -	\$ 144	\$ -	\$ 103,714	\$ -	\$ -	\$ (46)	\$ -	\$ 98,212	
Mar-17	\$ -	\$ 8,138	\$ -	\$ -	\$ 873	\$ 75	\$ 107,996	\$ -	\$ -	\$ 7	\$ -	\$ 117,089	
<b>Total:</b>	\$ -	\$ (66,205)	\$ -	\$ -	\$ 8,529	\$ 290	\$ -	\$ 639,406	\$ 22,500	\$ -	\$ 3,115	\$ 135	\$ 607,769

Non-Winter Hedge:	A+B+C+D	\$ (66,205)
Non-Winter Transaction Cost:	E+F	\$ 8,819
		\$ (57,386)
Winter Hedge:	G+H+I+J	\$ 661,906
Winter Hedge Transaction Cost:	K+L	\$ 3,250
		\$ 665,156
Financial Cost Total Included in GCIM:		\$ 607,769

2-3i  
Southern California Gas Company  
Winter Hedge Costs  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	25% Winter						75% Winter					
	NYMEX Option Premiums (Gain)/Loss	OTC Cleared Swaps (Gain)/Loss	OTC Clear Option Premiums (Gain)/Loss	Future (Gain)/Loss	Exchanged Traded Broker Fee	Financial Swap Broker Fee	NYMEX Option Premiums (Gain)/Loss	OTC Cleared Swaps (Gain)/Loss	OTC Clear Option Premiums (Gain)/Loss	Future (Gain)/Loss	Exchanged Traded Broker Fee	Financial Swap Broker Fee
Apr-16	\$ -	\$ -	\$ -	\$ -	\$ 131	\$ -	\$ -	\$ -	\$ -	\$ 394	\$ -	
May-16	\$ -	\$ -	\$ -	\$ -	\$ (96)	\$ -	\$ -	\$ -	\$ -	\$ (288)	\$ -	
Jun-16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Jul-16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Aug-16	\$ -	\$ -	\$ -	\$ -	\$ 267	\$ -	\$ -	\$ -	\$ -	\$ 802	\$ -	
Sep-16	\$ -	\$ 214,313	\$ 22,500	\$ -	\$ 875	\$ -	\$ 642,938	\$ 67,500	\$ -	\$ 2,626	\$ -	
Oct-16	\$ -	\$ -	\$ -	\$ -	\$ 420	\$ 19	\$ -	\$ -	\$ -	\$ 1,259	\$ 56	
Nov-16	\$ -	\$ 100,950	\$ -	\$ -	\$ 986	\$ 37	\$ 302,850	\$ -	\$ -	\$ 2,958	\$ 111	
Dec-16	\$ -	\$ 1,337	\$ -	\$ -	\$ 412	\$ 10	\$ 4,011	\$ -	\$ -	\$ 1,237	\$ 29	
Jan-17	\$ -	\$ 111,096	\$ -	\$ -	\$ 157	\$ 70	\$ 333,289	\$ -	\$ -	\$ 472	\$ 210	
Feb-17	\$ -	\$ 103,714	\$ -	\$ -	\$ (46)	\$ -	\$ 311,141	\$ -	\$ -	\$ (138)	\$ -	
Mar-17	\$ -	\$ 107,996	\$ -	\$ -	\$ 7	\$ -	\$ 323,989	\$ -	\$ -	\$ 22	\$ -	
<b>Total</b>	\$ -	\$ 639,406	\$ 22,500	\$ -	\$ 3,115	\$ 135	\$ 1,918,217	\$ 67,500	\$ -	\$ 9,344	\$ 406	

25% Winter	\$ 665,156
75% Winter	\$ 1,995,467
100% Winter	\$ 2,660,623

2-4b  
Southern California Gas Company  
Benchmark Commodity Costs  
GCIIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Mainline Benchmark Commodity Cost	\$ 38,289,268	\$ 44,949,913	\$ 47,324,165	\$ 65,772,858	\$ 66,612,401	\$ 61,639,334	\$ 71,285,147	\$ 68,633,814	\$ 93,171,391	\$ 107,811,130	\$ 82,479,625	\$ 57,759,193	\$ 805,728,240
Border Commodity Cost	\$ (1,708,111)	\$ (2,954,473)	\$ (4,290,445)	\$ 3,049,493	\$ 6,986,187	\$ (3,603,393)	\$ 136,718	\$ (1,263,271)	\$ 18,971,140	\$ 36,449,410	\$ 21,986,906	\$ (6,041,710)	\$ 67,718,452
Citygate Commodity Cost	\$ (7,677,670)	\$ (5,405,887)	\$ (5,489,740)	\$ 14,477,485	\$ 4,383,790	\$ 18,734,448	\$ (1,763,257)	\$ 1,233,464	\$ 44,351,304	\$ 57,109,437	\$ 30,895,082	\$ (2,291,101)	\$ 148,557,355
PG&E Topock Commodity Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (483,786)	\$ (83,348)	\$ -	\$ -	\$ -	\$ -	\$ (567,134)
<b>Total Benchmark Commodity Costs</b>	<b>\$ 28,903,486</b>	<b>\$ 36,589,553</b>	<b>\$ 37,543,980</b>	<b>\$ 83,299,837</b>	<b>\$ 77,982,378</b>	<b>\$ 76,770,390</b>	<b>\$ 69,174,821</b>	<b>\$ 68,520,659</b>	<b>\$ 156,493,835</b>	<b>\$ 201,369,978</b>	<b>\$ 135,361,613</b>	<b>\$ 49,426,382</b>	<b>\$ 1,021,436,913</b>



2-5  
Southern California Gas Company  
Reservation Charges  
GCIM Year 23

	April 1, 2016 through March 31, 2017													
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total	
El Paso	\$ 5,644,519	\$ 5,656,792	\$ 5,644,519	\$ 5,644,519	\$ 5,713,930	\$ 5,644,519	\$ 5,644,519	\$ 6,262,868	\$ 6,415,634	\$ 6,362,583	\$ 6,493,972	\$ 6,257,985	\$ 71,386,359	
Transwestern	\$ 858,000	\$ 886,600	\$ 858,000	\$ 886,600	\$ 886,600	\$ 858,000	\$ 886,600	\$ 1,239,977	\$ 1,575,809	\$ 1,392,909	\$ 1,157,311	\$ 1,281,309	\$ 12,767,715	
Kern River	\$ 2,602,075	\$ 2,688,811	\$ 2,602,075	\$ 2,688,811	\$ 2,688,811	\$ 2,602,075	\$ 2,658,041	\$ 2,565,098	\$ 2,902,321	\$ 2,787,567	\$ 2,400,203	\$ 2,657,367	\$ 31,843,254	
Nova (A)	\$ 218,372	\$ 216,300	\$ 217,084	\$ 214,509	\$ 215,433	\$ 213,557	\$ 211,234	\$ 208,322	\$ 210,002	\$ 235,214	\$ 236,672	\$ 231,770	\$ 2,628,470	
Foothills (B)	\$ 114,446	\$ 113,360	\$ 113,771	\$ 112,421	\$ 112,906	\$ 111,923	\$ 110,705	\$ 109,179	\$ 110,059	\$ 95,908	\$ 96,503	\$ 94,504	\$ 1,295,685	
GTN (C)	\$ 472,889	\$ 488,651	\$ 472,888	\$ 488,651	\$ 488,651	\$ 472,888	\$ 488,651	\$ 472,888	\$ 488,651	\$ 488,652	\$ 441,362	\$ 488,651	\$ 5,753,473	
PG&E (D)	\$ 288,711	\$ 288,711	\$ 288,711	\$ 288,711	\$ 303,210	\$ 303,210	\$ 303,210	\$ 303,210	\$ 303,210	\$ 297,420	\$ 297,420	\$ 297,420	\$ 3,563,153	
Canadian Path (A)+(B)+(C)+(D)	\$ 1,094,417	\$ 1,107,022	\$ 1,092,454	\$ 1,104,292	\$ 1,120,199	\$ 1,101,578	\$ 1,113,800	\$ 1,093,600	\$ 1,111,923	\$ 1,117,194	\$ 1,071,957	\$ 1,112,345	\$ 13,240,781	
Backbone Transportation Service Charges	\$ 4,292,307	\$ 4,405,014	\$ 4,297,364	\$ 4,532,663	\$ 4,432,777	\$ 4,880,353	\$ 5,149,339	\$ 6,223,510	\$ 7,095,664	\$ 12,958,905	\$ 11,041,724	\$ 11,089,059	\$ 80,398,681	
Brokered Capacity Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (116,598)	\$ (116,598)	
Total Backbone Transportation	\$ 4,292,307	\$ 4,405,014	\$ 4,297,364	\$ 4,532,663	\$ 4,432,777	\$ 4,880,353	\$ 5,149,339	\$ 6,223,510	\$ 7,095,664	\$ 12,958,905	\$ 11,041,724	\$ 10,972,461	\$ 80,282,083	
<b>Total Reservation Charges</b>	<b>\$ 14,491,318</b>	<b>\$ 14,744,239</b>	<b>\$ 14,494,412</b>	<b>\$ 14,856,884</b>	<b>\$ 14,842,317</b>	<b>\$ 15,086,525</b>	<b>\$ 15,452,299</b>	<b>\$ 17,385,053</b>	<b>\$ 19,101,351</b>	<b>\$ 24,619,158</b>	<b>\$ 22,165,167</b>	<b>\$ 22,281,468</b>	<b>\$ 209,520,191</b>	

2-5.1  
Southern California Gas Company  
Brokered Capacity Credits  
GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
El Paso	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transwestern	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Kern River	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Nova (A)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Foothills (B)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN (C)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PG&E (D)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Canadian Path (A)+(B)+( C)+( D)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mojave	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Northwest Pipeline	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Backbone Transportation Service Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (116,598)	\$ (116,598)
<b>Total Brokered Capacity Credits</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (116,598)	\$ (116,598)

2-6  
Southern California Gas Company  
Transportation Charges  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
El Paso	\$ 427,418	\$ 427,221	\$ 475,369	\$ 450,973	\$ 450,730	\$ 384,811	\$ 454,126	\$ 432,256	\$ 465,876	\$ 460,722	\$ 450,688	\$ 439,712	\$ 5,319,904
Transwestern	\$ 52,826	\$ 55,098	\$ 52,702	\$ 54,913	\$ 55,258	\$ 51,989	\$ 54,594	\$ 83,009	\$ 102,779	\$ 101,763	\$ 78,962	\$ 84,225	\$ 828,117
Kern River	\$ 40,681	\$ 42,317	\$ 40,787	\$ 40,604	\$ 42,314	\$ 40,917	\$ 41,237	\$ 39,855	\$ 48,701	\$ 45,839	\$ 36,914	\$ 31,215	\$ 491,381
Canadian Path	\$ 22,911	\$ 22,907	\$ 22,164	\$ 23,159	\$ 18,161	\$ 17,575	\$ 17,475	\$ 16,919	\$ 18,156	\$ 18,186	\$ 16,010	\$ 17,980	\$ 231,602
ETP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mojave	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 543,837</b>	<b>\$ 547,544</b>	<b>\$ 591,021</b>	<b>\$ 569,649</b>	<b>\$ 566,462</b>	<b>\$ 495,293</b>	<b>\$ 567,431</b>	<b>\$ 572,039</b>	<b>\$ 635,511</b>	<b>\$ 626,510</b>	<b>\$ 582,575</b>	<b>\$ 573,133</b>	<b>\$ 6,871,005</b>

2-7  
Southern California Gas Company  
Net Commodity Purchase Costs  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
<b>Mainline Prurchases</b>	\$ 42,977,789	\$ 52,011,648	\$ 52,772,308	\$ 73,548,071	\$ 78,302,258	\$ 72,051,856	\$ 78,952,967	\$ 81,334,960	\$ 108,255,633	\$ 128,154,164	\$ 92,112,874	\$ 71,547,437	\$ 932,021,966
<b>Border Purchases</b>	\$ 1,144,009	\$ 264,332	\$ 4,001,025	\$ 19,976,200	\$ 14,748,193	\$ 20,830,923	\$ 1,458,216	\$ 13,118,769	\$ 66,153,688	\$ 89,669,746	\$ 69,138,021	\$ 12,692,246	\$ 313,195,368
<b>Total Commodity Purchases</b>	\$ 44,121,797	\$ 52,275,980	\$ 56,773,333	\$ 93,524,272	\$ 93,050,451	\$ 92,882,779	\$ 80,411,184	\$ 94,453,729	\$ 174,409,321	\$ 217,823,910	\$ 161,250,895	\$ 84,239,684	\$ 1,245,217,334
<b>Mainline Sales</b>	\$ (5,366,532)	\$ (6,849,508)	\$ (6,299,261)	\$ (7,917,853)	\$ (11,971,072)	\$ (10,958,780)	\$ (7,511,253)	\$ (11,388,039)	\$ (16,880,788)	\$ (19,294,634)	\$ (9,528,466)	\$ (14,921,389)	\$ (128,887,577)
<b>Border Sales</b>	\$ (10,916,820)	\$ (8,713,286)	\$ (15,553,778)	\$ (3,845,130)	\$ (3,866,712)	\$ (5,926,951)	\$ (3,556,160)	\$ (13,725,239)	\$ (2,084,801)	\$ 119	\$ (23,447,036)	\$ (21,647,252)	\$ (113,283,047)
<b>Total Commodity Sales</b>	\$ (16,283,352)	\$ (15,562,794)	\$ (21,853,039)	\$ (11,762,983)	\$ (15,837,785)	\$ (16,885,732)	\$ (11,067,413)	\$ (25,113,278)	\$ (18,965,590)	\$ (19,294,515)	\$ (32,975,502)	\$ (36,568,640)	\$ (242,170,625)
<b>Net Commodity Purchases</b>	\$ 27,838,445	\$ 36,713,185	\$ 34,920,294	\$ 81,761,289	\$ 77,212,666	\$ 75,997,047	\$ 69,343,770	\$ 69,340,451	\$ 155,443,731	\$ 198,529,395	\$ 128,275,393	\$ 47,671,043	\$ 1,003,046,710

2-8  
Southern California Gas Company  
Net Mainline Purchases by Pipelines  
GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
El Paso - Permian	\$ 14,266,020	\$ 4,808,817	\$ 4,385,812	\$ 8,880,813	\$ 8,825,221	\$ 8,274,365	\$ 10,755,338	\$ 11,569,585	\$ 711,594	\$ 13,945,899	\$ 12,600,741	\$ 5,621,639	\$ 104,645,843
El Paso - San Juan	\$ 34,993,313	\$ 19,134,405	\$ 21,212,372	\$ 26,592,481	\$ 25,843,407	\$ 21,961,283	\$ 27,586,017	\$ 23,410,098	\$ 41,986,905	\$ 37,036,214	\$ 31,802,188	\$ 23,845,736	\$ 335,404,418
Transwestern - Permian	\$ 2,705,100	\$ 1,666,701	\$ 1,561,477	\$ 2,349,266	\$ 2,337,395	\$ 2,218,808	\$ 2,521,720	\$ 5,482,143	\$ 6,409,401	\$ 7,985,706	\$ 6,222,316	\$ 4,715,941	\$ 46,175,974
Transwestern - San Juan	\$ 7,286,650	\$ 4,022,765	\$ 3,903,806	\$ 5,726,852	\$ 5,672,014	\$ 5,482,399	\$ 6,019,478	\$ 5,973,216	\$ 11,131,228	\$ 12,296,935	\$ 7,113,957	\$ 5,858,959	\$ 80,488,260
Kern River	\$ 23,540,339	\$ 14,207,843	\$ 13,669,853	\$ 19,443,149	\$ 20,146,735	\$ 20,339,667	\$ 21,446,635	\$ 20,016,542	\$ 27,724,035	\$ 33,092,000	\$ 21,792,084	\$ 13,967,165	\$ 249,386,048
Enterprise - Waha	\$ -	\$ -	\$ 201,201	\$ -	\$ 603,808	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 805,009
NOVA-AECO/NIT	\$ 3,164,155	\$ 1,321,609	\$ 1,538,527	\$ 2,637,656	\$ 2,989,598	\$ 2,816,555	\$ 3,112,525	\$ 3,491,532	\$ 3,673,023	\$ 4,502,776	\$ 3,053,122	\$ 2,969,936	\$ 35,271,015
GTN-Kingsgate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN-Stanfield	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GTN-Malin	\$ -	\$ -	\$ -	\$ -	\$ (86,993)	\$ -	\$ -	\$ 3,807	\$ (261,342)	\$ -	\$ -	\$ (353,328)	\$ (697,856)
<b>Total Mainline Purchases</b>	<b>\$ 85,955,577</b>	<b>\$ 45,162,140</b>	<b>\$ 46,473,047</b>	<b>\$ 65,630,219</b>	<b>\$ 66,331,185</b>	<b>\$ 61,093,076</b>	<b>\$ 71,441,714</b>	<b>\$ 69,946,921</b>	<b>\$ 91,374,845</b>	<b>\$ 108,859,530</b>	<b>\$ 82,584,408</b>	<b>\$ 56,626,048</b>	<b>\$ 851,478,710</b>

\*Net = purchases + Sale

2-9  
 Southern California Gas Company  
 Net Border and Citygate Purchase Summary  
 GCIM Year 23

	April 1, 2016 through March 31, 2017												
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Total Border and Citygate Purchases	\$ 1,144,009	\$ 264,332	\$ 4,001,025	\$ 19,976,200	\$ 14,748,193	\$ 20,830,923	\$ 1,458,216	\$ 13,118,769	\$ 66,153,688	\$ 89,669,746	\$ 69,138,021	\$ 12,692,246	\$ 313,195,368
Total Border Sales	\$ (10,916,820)	\$ (8,713,286)	\$ (15,553,778)	\$ (3,845,130)	\$ (3,866,712)	\$ (5,926,951)	\$ (3,556,160)	\$ (13,725,239)	\$ (2,084,801)	\$ 119	\$ (23,447,036)	\$ (21,647,252)	\$ (113,283,047)
Net Border and Citygate Purchases	\$ (9,772,811)	\$ (8,448,954)	\$ (11,552,754)	\$ 16,131,070	\$ 10,881,481	\$ 14,903,971	\$ (2,097,944)	\$ (606,470)	\$ 64,068,886	\$ 89,669,865	\$ 45,690,985	\$ (8,955,005)	\$ 199,912,321

\*Net = purchases + sale

Southern California Gas Company  
Actual Net Purchase Volume  
GCIM Year 23  
April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
Mainline Purchases	28,650,050	30,166,325	29,861,640	29,462,525	31,314,221	28,139,209	29,511,168	32,106,270	35,828,597	36,552,015	28,088,727	31,540,644	371,221,391
Mainline Sales	(3,183,294)	(4,304,802)	(2,998,857)	(3,154,434)	(4,618,004)	(4,095,156)	(2,835,590)	(5,032,855)	(4,977,143)	(6,186,104)	(3,407,868)	(6,118,464)	(50,912,571)
Net Mainline Purchase Volume	25,466,756	25,861,523	26,862,783	26,308,091	26,696,217	24,044,053	26,675,578	27,073,415	30,851,454	30,365,911	24,680,859	25,422,180	320,308,820
Border and Citygate Purchases	703,555	150,068	1,975,073	7,077,501	5,322,072	7,262,873	529,589	4,835,316	18,303,554	24,122,970	22,400,690	4,805,602	97,488,863
Border and Citygate Sales	(6,005,033)	(4,354,217)	(6,866,573)	(1,227,575)	(1,215,000)	(2,064,997)	(1,251,038)	(4,906,008)	(538,447)	-	(6,945,217)	(8,135,353)	(43,509,458)
Net Border and Citygate Purchase Volume	(5,301,478)	(4,204,149)	(4,891,500)	5,849,926	4,107,072	5,197,876	(721,449)	(70,692)	17,765,107	24,122,970	15,455,473	(3,329,751)	53,979,405
Net Commodity Purchase Volume	20,165,278	21,657,374	21,971,283	32,158,017	30,803,289	29,241,929	25,954,129	27,002,723	48,616,561	54,488,881	40,136,332	22,092,429	374,288,225
Actual Transported Volume	19,512,873	20,982,029	21,287,633	31,495,454	30,114,537	28,619,507	25,270,477	26,321,032	47,828,542	53,686,995	41,725,703	21,459,339	<u>368,304,121</u>

Southern California Gas Company  
 Net Mainline Purchase Volume  
 GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
<b>Mainline Purchase Total</b>	28,650,050	30,166,325	29,861,640	29,462,525	31,314,221	28,139,209	29,511,168	32,106,270	35,828,597	36,552,015	28,088,727	31,540,644	371,221,391
<b>Mainline Sale Total</b>	(3,183,294)	(4,304,802)	(2,998,857)	(3,154,434)	(4,618,004)	(4,095,156)	(2,835,590)	(5,032,855)	(4,977,143)	(6,186,104)	(3,407,868)	(6,118,464)	(50,912,571)
<b>Net Mainline Purchase Volume</b>	25,466,756	25,861,523	26,862,783	26,308,091	26,696,217	24,044,053	26,675,578	27,073,415	30,851,454	30,365,911	24,680,859	25,422,180	320,308,820



## Southern California Gas Company

## Total Mainline Purchase Volume

## GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
El Paso - Permian	4,647,891	4,691,103	4,358,767	4,949,254	5,266,469	5,141,595	5,109,649	5,230,740	5,249,004	6,317,692	4,474,331	5,465,995	60,902,490
El Paso - San Juan	11,550,163	12,133,513	12,464,325	11,821,585	13,026,842	10,610,208	11,699,430	13,078,647	13,877,839	13,638,113	12,290,959	13,192,071	149,383,695
Transwestern - Permian	899,700	924,225	877,194	927,342	929,998	900,000	922,578	2,190,522	2,236,050	2,264,277	2,057,109	2,248,684	17,377,679
Transwestern - San Juan	2,328,202	2,229,601	2,147,577	2,223,960	2,231,975	2,151,592	2,219,408	2,365,103	3,565,480	3,430,320	2,272,630	2,560,345	29,726,193
Kern River	7,611,855	7,928,381	7,801,537	7,724,553	7,935,767	7,672,393	7,861,802	7,597,845	9,222,498	8,835,466	7,414,434	6,392,879	93,999,410
Enterprise - Waha	-	-	600,000	-	242,500	-	-	-	-	-	-	-	842,500
NOVA-AECO/NIT	1,612,239	2,259,502	1,612,240	1,815,831	1,680,670	1,663,421	1,698,301	1,641,413	1,677,726	2,066,147	(420,736)	1,680,670	18,987,424
GTN-Kingsgate	-	-	-	-	-	-	-	-	-	-	-	-	-
GTN-Stanfield	-	-	-	-	-	-	-	-	-	-	-	-	-
GTN-Malin	-	-	-	-	-	-	-	2,000	-	-	-	-	2,000
<b>Total Mainline Purchase Volume</b>	<b>28,650,050</b>	<b>30,166,325</b>	<b>29,861,640</b>	<b>29,462,525</b>	<b>31,314,221</b>	<b>28,139,209</b>	<b>29,511,168</b>	<b>32,106,270</b>	<b>35,828,597</b>	<b>36,552,015</b>	<b>28,088,727</b>	<b>31,540,644</b>	<b>371,221,391</b>

**Southern California Gas Company  
Total Mainline Sale Volume  
GCIM Year 22**

**April 1, 2016 through March 31, 2017**

	<b>Apr-16</b>	<b>May-16</b>	<b>Jun-16</b>	<b>Jul-16</b>	<b>Aug-16</b>	<b>Sep-16</b>	<b>Oct-16</b>	<b>Nov-16</b>	<b>Dec-16</b>	<b>Jan-17</b>	<b>Feb-17</b>	<b>Mar-17</b>	<b>Total</b>
<b>El Paso - Permian</b>	(1,559,993)	(2,102,776)	(1,812,262)	(1,461,673)	(1,787,844)	(1,900,131)	(1,176,992)	(777,218)	(4,308,807)	(2,592,763)	(453,374)	(2,732,527)	(22,666,360)
<b>El Paso - San Juan</b>	(1,455,539)	(1,545,400)	(586,886)	(1,400,164)	(2,775,374)	(2,072,824)	(1,583,529)	(4,160,162)	(530,496)	(3,199,049)	(2,194,483)	(2,703,563)	(24,207,469)
<b>Transwestern - Permian</b>	(159,704)	-	(4,583)	-	-	(30,000)	-	(3,503)	(19,040)	-	(1,500)	(140,255)	(358,585)
<b>Transwestern - San Juan</b>	-	-	-	(10,000)	-	(45,000)	-	(10,000)	(9,900)	-	-	(26,400)	(101,300)
<b>Kern River</b>	-	(5,000)	(170,356)	(90,000)	-	-	-	(7,000)	(37,500)	-	(337,775)	(357,996)	(1,005,627)
<b>Enterprise - Waha</b>	-	-	(362,500)	-	(10,000)	-	-	-	-	-	-	-	(372,500)
<b>NOVA-AECO/NIT</b>	(8,058)	(651,626)	(62,270)	(192,597)	(14,786)	(47,201)	(75,069)	(74,972)	-	(394,292)	(420,736)	(17,723)	(1,959,330)
<b>GTN-Kingsgate</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>GTN-Stanfield</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>GTN-Malin</b>	-	-	-	-	(30,000)	-	-	-	(71,400)	-	-	(140,000)	(241,400)
<b>Total Mainline Sale Volume</b>	<b>(3,183,294)</b>	<b>(4,304,802)</b>	<b>(2,998,857)</b>	<b>(3,154,434)</b>	<b>(4,618,004)</b>	<b>(4,095,156)</b>	<b>(2,835,590)</b>	<b>(5,032,855)</b>	<b>(4,977,143)</b>	<b>(6,186,104)</b>	<b>(3,407,868)</b>	<b>(6,118,464)</b>	<b>(50,912,571)</b>

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 Southern California Gas Company  
 Total Border and Citygate Purchase Volume  
 GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
<b>Border Purchases</b>	613,879	45,068	607,898	1,707,453	2,610,821	370,365	424,900	2,109,530	5,717,116	9,554,236	10,925,026	1,339,173	36,025,465
<b>SoCal Citygate Purchases</b>	89,676	105,000	1,367,175	5,370,048	2,711,251	6,892,508	104,689	2,725,786	12,586,438	14,568,734	11,475,664	3,466,429	61,463,398
<b>PG&amp;E Topock</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Border and Citygate Purchases</b>	<b>703,555</b>	<b>150,068</b>	<b>1,975,073</b>	<b>7,077,501</b>	<b>5,322,072</b>	<b>7,262,873</b>	<b>529,589</b>	<b>4,835,316</b>	<b>18,303,554</b>	<b>24,122,970</b>	<b>22,400,690</b>	<b>4,805,602</b>	<b>97,488,863</b>

Southern California Gas Company  
Actual Total Border and Citygate Sale Volume  
GCIM Year 23

April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
<b>Border Sales</b>	(1,661,800)	(1,625,000)	(2,860,100)	(635,575)	(75,000)	(1,654,997)	(376,246)	(2,577,408)	(169,999)	-	(4,412,701)	(3,820,368)	(19,869,194)
<b>Socal Citygate Sales</b>	(4,343,233)	(2,729,217)	(4,006,473)	(592,000)	(1,140,000)	(410,000)	(701,392)	(2,297,500)	(368,448)	-	(2,532,516)	(4,314,985)	(23,435,764)
<b>PG&amp;E Topock Sales</b>	-	-	-	-	-	-	(173,400)	(31,100)	-	-	-	-	(204,500)
<b>Total Border and Citygate Sales</b>	(6,005,033)	(4,354,217)	(6,866,573)	(1,227,575)	(1,215,000)	(2,064,997)	(1,251,038)	(4,906,008)	(538,447)	-	(6,945,217)	(8,135,353)	(43,509,458)

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 Southern California Gas Company  
 Net Border and Citygate Purchase Volume  
 GCIM Year 23  
 April 1, 2016 through March 31, 2017

	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
<b>Border Purchases</b>	613,879	45,068	607,898	1,707,453	2,610,821	370,365	424,900	2,109,530	5,717,116	9,554,236	10,925,026	1,339,173	36,025,465
<b>Border Sale</b>	(1,661,800)	(1,625,000)	(2,860,100)	(635,575)	(75,000)	(1,654,997)	(376,246)	(2,577,408)	(169,999)	-	(4,412,701)	(3,820,368)	(19,869,194)
<b>Net Border Purchases</b>	(1,047,921)	(1,579,932)	(2,252,202)	1,071,878	2,535,821	(1,284,632)	48,654	(467,878)	5,547,117	9,554,236	6,512,325	(2,481,195)	16,156,271
<b>SoCal Citygate Purchases</b>	89,676	105,000	1,367,175	5,370,048	2,711,251	6,892,508	104,689	2,725,786	12,586,438	14,568,734	11,475,664	3,466,429	61,463,398
<b>SoCal Citygate Sales</b>	(4,343,233)	(2,729,217)	(4,006,473)	(592,000)	(1,140,000)	(410,000)	(701,392)	(2,297,500)	(368,448)	-	(2,532,516)	(4,314,985)	(23,435,764)
<b>Net SoCal Citygate Purchases</b>	(4,253,557)	(2,624,217)	(2,639,298)	4,778,048	1,571,251	6,482,508	(596,703)	428,286	12,217,990	14,568,734	8,943,148	(848,556)	38,027,634
<b>PG&amp;E Topock Purchases</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>PG&amp;E Topock Sales</b>	-	-	-	-	-	-	(173,400)	(31,100)	-	-	-	-	(204,500)
<b>PG&amp;E Topock Purchases</b>	-	-	-	-	-	-	(173,400)	(31,100)	-	-	-	-	(204,500)
<b>Total Border and Citygate Purchases</b>	(5,301,478)	(4,204,149)	(4,891,500)	5,849,926	4,107,072	5,197,876	(721,449)	(70,692)	17,765,107	24,122,970	15,455,473	(3,329,751)	53,979,405

**2-17**  
**Southern California Gas Company**  
**Benchmark Spot Prices**  
**GCIM Year 23**  
**April 1, 2016 through March 31, 2017**

\* Publications for each spot prices are reviewed.

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Southern California Gas Company

Core Capacity Utilization

GCIM Year 23

April 1, 2016 through March 31, 2017

	Core Capacity	Nominated Capacity	Unutilized Capacity	Capacity Utilization Percentage	Nominated Capacity	Actual Volume Delivered	Capacity Cut
<b>El Paso Natural Gas Company</b>	226,992,217	161,600,347	65,391,870	71%	161,600,347	160,833,905	766,442
<b>Foothills Pipelines Ltd</b>	19,644,264	19,376,106	268,158	99%	19,376,106	19,110,102	266,004
<b>Gas Trans Northwest Corp</b>	19,165,420	19,017,395	148,025	99%	19,017,395	18,730,537	286,858
<b>Kern River Gas Transmission Company</b>	93,494,230	91,178,745	2,315,485	98%	91,178,745	90,880,147	298,598
<b>Nova Gas Trans Ltd</b>	19,804,091	19,348,980	455,111	98%	19,348,980	19,348,979	1
<b>Pacific Gas &amp; Electric</b>	18,955,180	18,609,226	345,954	98%	18,609,226	18,324,368	284,858
<b>Transwestern Pipeline Company</b>	53,722,340	49,515,137	4,207,203	92%	49,515,137	49,175,718	339,419
<b>Total</b>	<b>451,777,742</b>	<b>378,645,936</b>	<b>73,131,806</b>	<b>84%</b>	<b>378,645,936</b>	<b>376,403,756</b>	<b>2,242,180</b>

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Southern California Gas Company  
Tolerance Band Review GCIM Year 23  
April 1, 2016 through March 31, 2017

	Benchmark	Actual	(Over)/Under	Benchmark	Actual	Reservation		Upper Tolerance 2%	Lower Tolerance 1%	Lower Tolerance
	Commodity Costs	Commodity Costs	Benchmark	Dollars	Dollars	Costs	Transportation Costs			5%
Apr-16	\$ 28,903,486	\$ 25,206,957	\$ 3,696,529	\$ 43,938,641	\$ 40,242,111	\$ 14,491,318	\$ 543,837	\$ 578,070	\$ 289,035	\$ 1,445,174
May-16	\$ 36,589,553	\$ 35,158,171	\$ 1,431,382	\$ 51,881,336	\$ 50,449,954	\$ 14,744,239	\$ 547,544	\$ 731,791	\$ 365,896	\$ 1,829,478
Jun-16	\$ 37,543,980	\$ 34,992,483	\$ 2,551,497	\$ 52,629,413	\$ 50,077,915	\$ 14,494,412	\$ 591,021	\$ 750,880	\$ 375,440	\$ 1,877,199
Jul-16	\$ 83,299,837	\$ 81,782,429	\$ 1,517,408	\$ 98,726,370	\$ 97,208,962	\$ 14,856,884	\$ 569,649	\$ 1,665,997	\$ 832,998	\$ 4,164,992
Aug-16	\$ 77,982,378	\$ 77,153,638	\$ 828,739	\$ 93,391,157	\$ 92,562,418	\$ 14,842,317	\$ 566,462	\$ 1,559,648	\$ 779,824	\$ 3,899,119
Sep-16	\$ 76,770,390	\$ 76,298,483	\$ 471,907	\$ 92,352,207	\$ 91,880,300	\$ 15,086,525	\$ 495,293	\$ 1,535,408	\$ 767,704	\$ 3,838,519
Oct-16	\$ 69,174,821	\$ 69,392,589	\$ (217,767)	\$ 85,194,552	\$ 85,412,319	\$ 15,452,299	\$ 567,431	\$ 1,383,496	\$ 691,748	\$ 3,458,741
Nov-16	\$ 68,520,659	\$ 67,811,321	\$ 709,339	\$ 86,477,751	\$ 85,768,413	\$ 17,385,053	\$ 572,039	\$ 1,370,413	\$ 685,207	\$ 3,426,033
Dec-16	\$ 156,493,835	\$ 155,444,616	\$ 1,049,219	\$ 176,230,697	\$ 175,181,479	\$ 19,101,351	\$ 635,511	\$ 3,129,877	\$ 1,564,938	\$ 7,824,692
Jan-17	\$ 201,369,978	\$ 198,476,230	\$ 2,893,748	\$ 226,615,646	\$ 223,721,898	\$ 24,619,158	\$ 626,510	\$ 4,027,400	\$ 2,013,700	\$ 10,068,499
Feb-17	\$ 135,361,613	\$ 128,410,806	\$ 6,950,808	\$ 158,109,355	\$ 151,158,548	\$ 22,165,167	\$ 582,575	\$ 2,707,232	\$ 1,353,616	\$ 6,768,081
Mar-17	\$ 49,426,382	\$ 44,154,698	\$ 5,271,683	\$ 72,280,983	\$ 67,009,299	\$ 22,281,468	\$ 573,133	\$ 988,528	\$ 494,264	\$ 2,471,319
<b>Total</b>	<b>\$1,021,436,913</b>	<b>\$994,282,420</b>	<b>\$ 27,154,492</b>	<b>\$ 1,237,828,108</b>	<b>\$1,210,673,616</b>	<b>\$209,520,191</b>	<b>\$6,871,005</b>	<b>\$20,428,738</b>	<b>\$10,214,369</b>	<b>\$51,071,846</b>