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PUBLIC ADVOCATES OFFICE
California Public Utilities Commission

MONITORING AND EVALUATION REPORT

Southern California Gas Company's
Gas Cost Incentive Mechanism

GCIM Year 28
April 1, 2021 through March 31, 2022

Application 22-06-005

San Francisco, California
October 15, 2022

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Chapter

CHAPTER 1
SUMMARY AND RECOMMENDATIONS

1.1 Introduction and Summary

On June 15, 2022, Southern California Gas Company (SoCalGas) filed Application (A.) 22-06-005 regarding the Year 28 Gas Cost Incentive Mechanism (GCIM) for the time period April 1, 2021 through March 31, 2022. The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) audited and evaluated the Application and SoCalGas' GCIM Year 28 Annual Report (Year 28 Report), and prepared this Monitoring and Evaluation Report (Cal Advocates Report). Chapter 2 of Cal Advocates Report presents the details and results of Cal Advocates' review. Appendix A to this report includes the work papers supporting Cal Advocates' findings.

Cal Advocates found that SoCalGas' recorded gas costs for GCIM Year 28 were $122,216,734 below the benchmark, which resulted in a reward of $22,313,352 to SoCalGas' shareholders and a ratepayer benefit of $99,903,383. Table 1-1 below summarizes SoCalGas' Year 28 performance,[1] which is based on the detailed GCIM monthly reports of core commodity transaction activities.

TABLE 1-1
Southern California Gas Company
Performance Summary
GCIM Year 28
April 1, 2021 Through March 31, 2022

Benchmark Costs	**$**	**2,298,535,046**
Actual Costs	**$**	**2,176,318,312**
GCIM Total Savings	**$**	**122,216,734**
Ratepayer Savings	**$**	**99,903,383**
Shareholder Reward	**$**	**22,313,352**

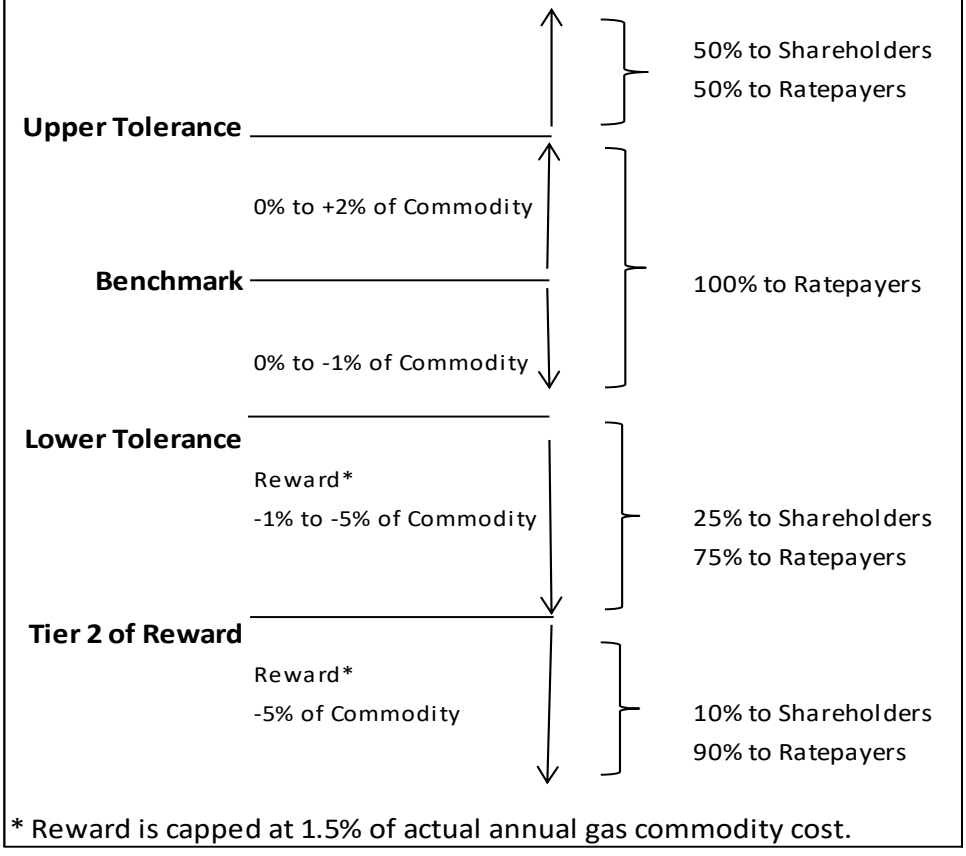
1.2 Background

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 in the form of a benchmark that indicates when actual purchase costs are within a stated range referred to as a "tolerance band." If SoCalGas' actual costs as

[1] *See* Cal Advocates Rept., Appx., Table 2-19.

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 Cal Advocates 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.

Figure 1.1 GCIM Tolerance Band Function



* Reward is capped at 1.5% of actual annual gas commodity cost.

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 accrued benefits or losses go to the ratepayers.[2]

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

[2] *See SoCalGas*, D.02-06-023, 2002 Cal. PUC LEXIS 352, at pp. *10 and *37–38 (respectively, Settlement and Ord. Para. 1) (dated June 6, 2002).

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 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 percent of actual commodity costs.

Commission Decision (D.) 94-03-076 originally approved the GCIM program, with subsequent changes and extensions that essentially enhanced the 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 this Cal Advocates Report presents supporting calculations for GCIM Year 28.

TABLE 1-2
Southern California Gas Company
Summary of Ratepayer Savings and Shareholder Rewards (in $Millions)

GCIM Year	Period	Total Cost Savings	Ratepayer Savings	Shareholder Rewards
24	2017-2018	61.72	50.37	11.35
25	2018-2019	105.45	88.66	16.79
26	2019-2020	81.97	69.17	12.80
27	2020-2021	184.74	173.60	11.14
28	2021-2022	122.21	99.90	22.31

1.4 Natural Gas Storage

To ensure dedicated core storage capacity, the Commission in D.06-10-029 authorized SoCalGas to revise its Preliminary Statement, Part VIII, and the GCIM to reflect changes to its mid-season minimum core inventory targets. These changes require SoCalGas to seek agreement from Cal Advocates and The Utility Reform Network (TURN) prior to making any revisions to its mid-season minimum core

inventory targets.[3] In D.18-01-005, the Commission ordered SoCalGas to confer with Cal Advocates if its mid-season core storage inventory will be less than 47 billion cubic feet (Bcf) on July 31 of each calendar year. D.18-01-005 also requires SoCalGas to provide notification of its mid-season and annual core storage inventory target to the Commission's Energy Division. For GCIM Year 28, SoCalGas met the July 31 mid-season storage target. As of October 31, 2021, SoCalGas reported the annual storage inventory was within the November 1st annual storage target.[4]

In D.08-12-020, the Commission adopted the Phase 1 Settlement Agreement, which eliminated the upper tolerance band for core storage.[5] Combining San Diego Gas & Electric Company's (SDG&E) and SoCalGas' balancing requirements ensures sufficient storage for core customers in Southern California. As of April 1, 2009, SoCalGas has implemented the core balancing requirements. For the current GCIM reporting period, SoCalGas did not report any core imbalance charges and operational flow order (OFO) daily non-compliance charges.[6]

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.[7] Instead, SoCalGas includes twenty five percent (25%) of all net gains and losses of its winter hedging transactions in the GCIM. The remaining seventy-five percent (75%) is excluded, which results in costs passed through to core customers. Cal Advocates reviewed SoCalGas' financial derivative gains and losses based on the adopted methodology and according to Commission policies and practices, as described in Chapter 2, Sections 2.10 and 2.11 of this Report.

In addition to core winter hedges, SoCalGas transacted non-winter hedges. For this period, SoCalGas' non-winter hedge results are also included in the GCIM.[8] Table 1-3 below shows the results of SoCalGas' hedging activities for the most recent five-year GCIM periods.

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[3] *See SoCalGas*, D.06-10-029, 2006 Cal. PUC LEXIS 398, p. *15 (Ord. Para. 3 approving and adopting "Joint Recommendations" [id. at *11] to allow changes in mid-season minimum core inventory targets).
[4] *See* SoCalGas GCIM Yr. 28 Rept., p. A-8.
[5] *See SoCalGas,* D.08-12-020, 2008 Cal. PUC LEXIS 482, p. *47 (Ord. Para. 1 adopting) (dated Dec. 4, 2008).
[6] *See* SoCalGas August 2, 2022, Response to Cal Advocates Data Request A.22-06-005_GCIM Year 28_MDR Q 11 issued July 19, 2022.
[7] *See SoCalGas*, D.10-01-023, 2010 Cal. PUC LEXIS 5, p. *100 (Ord. Para. 5) (dated Jan. 25, 2010).
[8] *See* Cal Advocates Rept. at sec. 2.10 ("Financial Derivatives").

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)
24	$ 0.63	$ 0.19	$ 0.82
25	$ (4.91)	$ (2.07)	$ (6.98)
26	$ (4.30)	$ (0.86)	$ (5.16)
27	$ 1.71	$ 0.43	$ 1.28
28*	$ (0.01)	$ (2.72)	$ (2.73)

*Source: See Cal Advocates Report, Table 2-11.

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).[9] 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.[10]

In accordance with the capacity guideline procedures established by D.04-09-022, SoCalGas, Cal Advocates, TURN, and the Commission's Energy Division conduct on-going discussions regarding interstate capacity requirements and SoCalGas' acquisition of interstate capacity. Cal Advocates serves as a resource for addressing compliance issues that impact acquisition and/or reduction of interstate capacity.[11]

Effective November 9, 2018, Advice Letter 5340 governs SoCalGas' capacity planning range (GCIM Year 26 and GCIM Year 27) for its combined gas portfolio with SDG&E for its winter and non-winter requirements.[12] Advice Letter 5699G updated minimum capacity for GCIM Year 28: non-winter requires 912 thousand dekatherms per day (MDth/d) and maximum capacity of 1,216 MDth/d. For winter, the combined portfolio minimum capacity is 1,013 MDth/d and maximum capacity is 1,216 MDth/d.[13]

[9] *OIR,* D.04-09-022, 2004 Cal. PUC LEXIS 522, p. *140 (Ord. Para. 2) (dated Sept. 2, 2004).
[10] D.04-09-022, 2004 Cal. PUC LEXIS 522, p. *137 (Concl. of Law 6).
[11] D.04-09-022, 2004 Cal. PUC LEXIS 522, p. *18 ("SoCalGas' Gas Acquisition Department will consult with [Cal Advocates], the Energy Division and TURN on a monthly basis.").
[12] *See* Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. van der Leeden, SoCalGas Dir. of Reg. Affairs, (Nov. 9, 2018, approving SoCalGas Adv. Letr 5340 (Aug. 17, 2018), effective Sept. 16, 2018) *available at* https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/5340.pdf.
[13] *See* Advice Letter 5699G, p. 2.

For GCIM Year 28, 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.[14]

1.7 Secondary Market Services Transactions

Secondary Market Services (SMS) generate 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.[15]

For the GCIM Year 28 period, SoCalGas shows net SMS revenues of ($31,034,822).[16] These revenues offset part of the gas costs and enable SoCalGas to lower its core commodity costs.

1.8 Conclusion

Cal Advocates' review verified that for GCIM Year 28, SoCalGas' total savings amount was $122,216,734. Accordingly, Cal Advocates confirms that SoCalGas' shareholders receive a reward in the amount of $22,313,352. Cal Advocates also confirms that for the GCIM Year 28 reporting period, ratepayer benefits amounted to $99,903,383. In collaboration with SoCalGas and other interested parties, Cal Advocates will continue to monitor and evaluate SoCalGas' GCIM to identify any changes needed to improve the effectiveness of its GCIM. Furthermore, SoCalGas and Cal Advocates would submit any subsequent changes to the Commission for approval and adoption.

[14] *See* SoCalGas GCIM Yr. 28 Rept., p. A-30, Appendix C - Current Core Firm Transportation Capacity Holdings.
[15] *See* SoCalGas GCIM Yr. 28 Rept., p. A-8-9.
[16] *See* SoCalGas GCIM Yr. 28 Rept., p. A-4, Table 2; *and see infra* at sec. 2.12 ("Review of Secondary Market Services Revenues").

CHAPTER 2
MONITORING AND EVALUATION AUDIT

2.1 Cal Advocates' GCIM Reward Evaluation

SoCalGas' GCIM Year 28 Application reports core gas procurement results for April 1, 2021 through March 31, 2022. Pursuant to D.94-03-076, Cal Advocates conducted a review and evaluation of SoCalGas' Year 28 GCIM report. The results of Cal Advocates' review and evaluation are presented in this chapter and the supporting work papers are included in Appendix A.

Cal Advocates' evaluation of SoCalGas' GCIM performance for the year ending March 31, 2022, confirmed a total savings of $122,216,734 in gas costs. These savings are based on the difference between the actual gas costs of $2,176,318,312 and the GCIM benchmark costs of $2,298,535,046. As part of its audit of SoCalGas' GCIM Year 28 report, Cal Advocates verified that the GCIM sharing mechanism resulted in a ratepayer savings of $99,903,383, and a shareholder reward of $22,313,352. Table 2-1 below summarizes the SoCalGas GCIM Year 28 savings based on the calculated tolerance band levels.

TABLE 2-1
Southern California Gas Company
Reward Calculation
GCIM Year 28
April 1, 2021 Through March 31, 2022

		SCG Annual Report
Benchmark Costs		$ 2,298,535,046
Actual Costs		$ 2,176,318,312
GCIM Year 28 Annual Report: Total Savings Below Benchmark		$ 122,216,734
Amount of Lower Tolerance Band Not Subject to Sharing (0%-1%)		$ 20,183,358
Ratepayers' share:		$ 20,183,358
Amount Subject to 75%-25% Sharing (1%-5%)		$ 80,733,430
Ratepayers' share: 75%	75%	$ 60,550,073
Shareholders' share: 25%	25%	$ 20,183,357
Amount Subject to 90%/10% Sharing (> 5%)		$ 21,299,947
Ratepayers' share: 90%	90%	$ 19,169,952
Shareholders' share: 10%	10%	$ 2,129,995
Cap on Shareholder Rewards = 1.5% of commodity costs:		
Total Commodity costs:		$ 1,896,119,016
Shareholder Reward Cap:	1.50%	$ 28,441,785
Total Ratepayers' Share:		$ 99,903,383
Total Shareholders' Share:		$ 22,313,352
Total Savings:		$ 122,216,735

2.2 Summary of Benchmark and Actual Costs

Table 2-2 below shows an annual summary of the monthly gas commodity costs that shows 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.

TABLE 2-2
Southern California Gas Company
Tolerance Band Review
GCIM Year 28
April 1, 2021 Through March 31, 2022

Month	Benchmark Dollars*	Actual Dollars*	(Over)/Under Benchmark	Lower Tolerance 1%	Lower Tolerance 5%	Actual Commodity Cost
Apr-21	$ 105,578,794	$ 98,708,885	$ 6,869,909	$ 82,596,265	$ 79,259,042	$ 76,560,662
May-21	$ 113,965,559	$ 106,461,528	$ 7,504,031	$ 90,660,102	$ 86,997,067	$ 84,071,829
Jun-21	$ 115,911,439	$ 105,157,177	$ 10,754,263	$ 93,210,010	$ 89,443,949	$ 83,397,263
Jul-21	$ 142,870,069	$ 127,717,548	$ 15,152,521	$ 120,037,110	$ 115,187,126	$ 106,097,086
Aug-21	$ 126,060,316	$ 116,400,436	$ 9,659,880	$ 103,224,351	$ 99,053,670	$ 94,607,141
Sep-21	$ 103,949,854	$ 93,605,484	$ 10,344,370	$ 81,682,571	$ 78,382,265	$ 72,163,278
Oct-21	$ 188,835,624	$ 178,468,426	$ 10,367,198	$ 164,555,098	$ 157,906,407	$ 155,850,073
Nov-21	$ 249,472,724	$ 234,707,477	$ 14,765,247	$ 222,678,354	$ 213,681,249	$ 210,162,384
Dec-21	$ 334,186,444	$ 321,947,520	$ 12,238,924	$ 305,881,163	$ 293,522,328	$ 296,731,948
Jan-22	$ 464,732,327	$ 437,191,168	$ 27,541,159	$ 432,975,607	$ 415,481,643	$ 409,807,938
Feb-22	$ 202,469,100	$ 205,175,315	$ (2,706,215)	$ 176,714,522	$ 169,574,541	$ 181,205,732
Mar-22	$ 150,502,796	$ 150,777,348	$ (274,552)	$ 123,937,239	$ 118,929,674	$ 125,463,683
	$ 2,298,535,046	$ 2,176,318,312	$ 122,216,734	$ 1,998,152,392	$ 1,917,418,962	$ 1,896,119,016
	*Included transportation costs and reservation costs.					

Source: Cal Advocates Report, Appendix, Table 2-19.

2.3 Review of Benchmark Volumes and Costs

Table 2-3 below shows the components of the Mainline and Border Benchmark Costs. Cal Advocates' review of GCIM Year 28 records confirms the Total Benchmark Dollar Costs of $2,298,535,046.

The Total Benchmark Commodity Costs consist of Mainline Benchmark Commodity Costs of $1,349,379,149 and Benchmark Border Commodity Costs of $668,956,601 which are calculated based on the Southern California Commodity Border Costs of 21,721,811, and SoCalGas Citygate Commodity Cost of $647,234,790.

The Total Benchmark Dollar Costs include $4,185,688 in flow through costs of Interstate Volumetric Transport Costs; $276,013,608 of Benchmark Reservation Charges; and $2,018,335,750 in Total Benchmark Commodity Costs for a total of $2,298,535,046.

TABLE 2-3
Southern California Gas Company
Benchmark Dollar Components
GCIM Year 28
April 1, 2021 Through March 31, 2022

			Benchmark	
Annual Report:			**Dollars**	Reference*
Mainline Benchmark Commodity Costs			**$ 1,349,379,149**	2-4
Southern California Border Commodity Costs	**21,721,811**			2-4
SoCalGas Citygate Commodity Costs	**647,234,790**			2-4
Sub-Total Border Benchmark Commodity Costs			**$ 668,956,601**	
Total Benchmark Commodity Costs			**$ 2,018,335,750**	
Flow-Through Costs				
Interstate Volumetric Transport Costs			**$ 4,185,688**	2-6
Benchmark Reservation Charges			**$ 276,013,608**	2-5
Rounding			**$ -**	
Total Benchmark Dollar Costs:			**$ 2,298,535,046**	

*****Source: Cal Advocates Report, Appendix, Table.

Table 2-3A below shows 415,654,446 MMBtus in Net Total Benchmark Volumes for the period from April 2021 through March 2022. This net total is comprised of the following: (i) 325,710,816 MMBtus, which is the Benchmark Mainline Volumes total; (ii) (1,808,407) MMBtus, which is the Benchmark Border Volumes total for the same period; and (iii) 91,752,037 MMBtus, which is the Benchmark SoCalGas Citygate Volumes total. The Actual Transported Volumes of 397,732,579 MMBtus is the total purchased volumes that SoCalGas received during the GCIM Year 28 period.

TABLE 2-3A
Southern California Gas Company
Benchmark Market Volumes (In MMBtus)
GCIM Year 28
April 1, 2021 Through March 31, 2022

			Reference*
Benchmark Mainline Volumes	325,710,816		2-11
Benchmark Border Volumes	(1,808,407)		2-16
Benchmark Citygate Volumes	91,752,037		2-16
Net Total Benchmark Volumes		415,654,446	
Actual Transported Volumes		397,732,579	2-10

*****Source: Cal Advocates Report, Appendix, Table.

2.4 Actual Gas Costs and Volumes

Table 2-4 below 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. Cal Advocates found that SoCalGas' records supported the volumes and corresponding dollar amounts for each of these components, as reflected in Table 2-4.

The Total Mainline and Border Purchases of $2,233,545,401 consist of Total Mainline Purchases of $1,416,107,003 and Total Border Purchases of $817,438,398. The Total Gas Sales of ($303,867,943) consists of Mainline Sales of ($68,820,966); Border Sales of ($172,573,539) and SoCalGas Citygate Sales of ($62,473,438). The Other Revenue and Costs of ($33,558,443) consist of (i) ($31,034,822) in Net Secondary Market Service Revenues; (ii) ($2,719,575) in costs from GCIM Derivative Transactions, and (iii) $195,953 in an Off-System Parking Fee. These are all included as part of the Total Commodity Costs of $1,896,119,016 which consist of (i) Total Mainline and Border Purchases of $2,233,545,401; (ii) Total Gas Sale of ($303,867,943); and (iii)Total Other Revenues/Costs of ($33,558,443).

SoCalGas' records show the calculation of the Interstate Volumetric Transport Costs as $4,185,688, and the Reservation Charges as $276,013,608. The sum of these costs and charges resulted in the corresponding Total Volume and Costs of $2,176,318,312 as shown on the last line in Table 2-4.

The Total Mainline and Border Purchase volume of 474,954,168 MMBtus is comprised of the totals for two types of gas purchases and their corresponding volumes: (i) Total Mainline Purchases 342,008,084 MMBtus; and (ii) Total Border Purchases 132,946,084 MMBtus.

The Total Gas Sale volumes of (59,299,722 MMBtus) is comprised of the following gas sales and their corresponding volumes: (i) Mainline Sales (16,297,268 MMBtus); (ii) Border Sales (34,530,213MMBtus); and (iii) SoCalGas Citygate Sales (8,472,241 MMBtus). The Total Gas Sales volumes of (59,299,722 MMBtus) was subtracted from the Total Mainline and Border Purchases volumes of 474,954,168 MMBtus to arrive at the Total Volume and Costs figure of 415,654,446 MMBtus.

TABLE 2-4
Southern California Gas Company
Actual Gas Costs Components
GCIM Year 28
April 1, 2021 Through March 31, 2022

Mainline Commodity Purchases	Volumes	Dollars	Reference*
El Paso Permian	39,961,472	$ 153,711,318	2-3a
El Paso San Juan	76,501,450	316,445,442	2-3a
Transwestern Permian	12,948,096	45,549,859	2-3a
Transwestern San Juan	42,829,165	182,696,176	2-3a
Kern River Pipeline	119,709,357	551,174,138	2-3a
NOVA-AECO/NIT	29,133,518	62,323,859	2-3a
White River Hub	20,925,026	104,206,212	2-3a
Total Mainline Purchases	342,008,084	$ 1,416,107,003	
Border and City Gate Purchases			
Border	32,721,806	$ 196,272,853	2-3b
SoCalGas Citygate	100,224,278	621,165,545	2-3b
Total Border Purchases	132,946,084	$ 817,438,398	
Total Mainline and Border Purchases	474,954,168	$ 2,233,545,401	
Gas Sales (deducting)			
Mainline Sales	(16,297,268)	$ (68,820,966)	2-3c
Border Sales	(34,530,213)	(172,573,539)	2-3d
SoCalGas Citygate Sales	(8,472,241)	(62,473,438)	2-3d
Total Gas Sales	(59,299,722)	$ (303,867,943)	
Other Revenues/Costs			
Net Secondary Market Revenue:		$ (31,034,822)	2-3e
GCIM Derivative Transactions		(2,719,575)	2-3g
Off System Parking Fee		195,953	2-3f
Total Other Revenues/Costs		$ (33,558,443)	
Total Commodity Costs		$ 1,896,119,016	
Interstate Reservation and Volumetric Transport Cost			
Interstate Volumetric Transport Costs		$ 4,185,688	2-6
Reservation Charges		276,013,608	2-5
Total Related Commodity Costs		$ 280,199,296	
Rounding		$ -	
Total Volume and Costs	415,654,446	$ 2,176,318,312	

*Source: Cal Advocates Report, Appendix, Table.

2.5 Mainline and Border Gas Sales

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

SoCalGas reported gas purchases and sales transactions with affiliates and confirmed that purchases and sales were completed through arm's length transactions via brokerage firms.[17]

TABLE 2-5
Southern California Gas Company
Summary of Mainline and Border Sales
GCIM Year 28
April 1, 2021 Through March 31, 2022

Mainline Pipelines	Sales	Volume (MMBtus)	Reference*
El Paso Permian	$ (9,170,207)	(2,253,461)	2-3c
El Paso San Juan	(10,353,423)	(2,626,648)	2-3c
Transwestern Permian	(1,277,191)	(299,176)	2-3c
Transwestern San Juan	(9,469,030)	(2,305,070)	2-3c
Kern River	(32,573,308)	(7,182,212)	2-3c
NOVA-AECO	(4,708,266)	(1,353,601)	2-3c
White River Hub	(1,269,540)	(277,100)	2-3c
Total Mainline	$ (68,820,966)	$ (16,297,268)	
Border Pipelines	**Sales**	**Volume (MMBtus)**	
Border	$ (172,573,539)	(34,530,213)	2-3d
SoCal City-Gate	(62,473,438)	(8,472,241)	2-3d
Total Border	$ (235,046,977)	(43,002,454)	
Total Sales to Volume	**$ (303,867,943)**	**(59,299,722)**	

*Source: Cal Advocates Report., Appendix, Table 2-3x.

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 SoCalGas GCIM Year 28 are shown in Table 2-6. The table shows the Summary of the Actual Pipeline Commodity Transported Costs by pipeline. The total volumetric transport costs for the period were $4,185,688, which is comprised of $961,141 in El Paso transport costs; $1,208,586 in Transwestern costs; $1,499,617 in Kern River costs; and $386,873 in Canadian Path costs; $101,982 in

[17] *See* SoCalGas GCIM Yr. 28 Rept., p. A-16.

Ruby costs; $4,666 in Wyoming Interstate costs; and $22,824 in Colorado Interstate costs.

TABLE 2-6
Southern California Gas Company
Summary of Actual Pipeline Commodity Transport Costs
GCIM Year 28
April 1, 2021 Through March 31, 2022

		Transport Cost
El Paso		$ 961,141
Transwestern		1,208,586
Kern River		1,499,617
Canadian Path		386,873
Ruby		101,982
Wyoming Interstate		4,666
Colorado Interstate		22,824
Total Transportation Costs		$ 4,185,688

Source: Cal Advocates Report, Appendix, Table 2-6.

2.7 Interstate Reservation Charges

Table 2-7 shows reservation charges by pipeline for the GCIM Year 28 period. The reservation charges were: El Paso $66,582,417; Transwestern $29,222,257; Kern River $33,748,226; Canadian Path $12,146,545; Ruby $48,664; Wyoming Interstate $1,646,379; Colorado Interstate $121,818; Backbone Transport Service contracts totaled $133,065,318; Brokered Capacity Credits ($568,016) and the Total Reservation Charges for the period were $276,013,608.

TABLE 2-7
Southern California Gas Company
Summary of Reservation Charges By Pipeline
GCIM Year 28
April 1, 2021 Through March 31, 2022

		Reservation Charge
El Paso		$ 66,582,417
Transwestern		29,222,257
Kern River		33,748,226
Canadian Path		12,146,545
Ruby		48,664
Wyoming Interstate		1,646,379
Colorado Interstate		121,818
Backbone Transportation		133,065,318
Brokered Capacity Credits		(568,016)
	Total Reservation Charges	$ 276,013,608

Source: Cal Advocates Report, Appendix, Table 2-5.

2.8 Interstate Pipeline Utilization

In D.04-09-022, the Commission required SoCalGas to track each pipeline's utilization of capacity.[18] Table 2-8 provides an overview of SoCalGas' nominated capacity for each pipeline listed. Total Core Capacity for all the pipelines was 459,404,507 MMBtus and Total Nominated Capacity was 394,095,974 MMBtus. The difference between these two total amounts is the unutilized capacity of 65,308,533 MMBtus, which is adjusted from core capacity.

Regarding the interstate pipelines, for GCIM Year 28, SoCalGas utilized Colorado Interstate Gas Company at 100% capacity; El Paso Natural Gas Company at 77% capacity; Foothills Pipeline Ltd at 97%; Gas Transmission Northwest Corp. at 97%; Kern River Gas Transmission Company at 99%; NOVA Gas Trans Ltd at 91% (Canadian Path); Pacific Gas and Electric at 97%; Transwestern Pipeline Company at 85%; Ruby Pipeline LLC at 78%; and Wyoming Interstate Company at 19%. The results are 389,320,685 MMBtus of Actual Volume Received based upon the Capacity Cut of 4,775,289 MMBtus being subtracted from Nominated Capacity of 394,095,974 MMBtus.

[18] *See OIR*, D.04-09-022, 2004 Cal. PUC LEXIS 522, p. *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 28
April 1, 2021 Through March 31, 2022

Pipeline	Core Capacity	Less: Nominated Capacity	Unutilized Capacity	Capacity Utilization Percentage	Nominated Capacity	Actual Volumes Received	Capacity Cut
Colorado Interstate Gas C	2,453,054	2,450,242	2,812	100%	2,450,242	2,449,961	281
El Paso Natural Gas Compa	171,022,857	132,171,470	38,851,387	77%	132,171,470	131,594,746	576,724
Foothills Pipelines Ltd	19,644,264	19,123,877	520,387	97%	19,123,877	17,855,943	1,267,934
Gas Trans Northwest Corp	19,165,420	18,584,948	580,472	97%	18,584,948	17,433,125	1,151,823
Kern River Gas Trans. Com	111,373,570	110,448,358	925,212	99%	110,448,358	110,234,520	213,838
Nova Gas Trans Ltd	19,804,091	18,119,372	1,684,719	91%	18,119,372	18,119,372	-
Pacific Gas & Electric	18,955,180	18,458,560	496,620	97%	18,458,560	17,275,601	1,182,959
Transwesten Pipeline Con	82,906,820	70,640,304	12,266,516	85%	70,640,304	70,259,122	381,182
Ruby Pipeline LLC	2,440,000	1,912,149	527,851	78%	1,912,149	1,911,861	288
Wyoming Interstate Comp	11,639,251	2,186,694	9,452,557	19%	2,186,694	2,186,434	260
Total	**459,404,507**	**394,095,974**	**65,308,533**	**86%**	**394,095,974**	**389,320,685**	**4,775,289**

Source: Cal Advocates Report, Appendix, Table 2-18.

2.9 Examination of the Purchased Gas Account

Table 2-9 below provides a Purchased Gas Account (PGA) reconciliation of the GCIM gas commodity costs.[19] One function of the PGA is for utilities to balance the recorded cost of gas and the corresponding revenues from the sale of that gas. For GCIM Year 28, Total PGA Commodity Costs equaled $1,931,653,187 and reported GCIM Commodity Costs for SoCalGas' gas portfolio purchases were $1,898,838,591 (excluding hedging costs), which results in a variance of $32,814,596. This variance consists of ($1,680,111) in costs excluded from the GCIM reported commodity costs; ($31,134,507) in net Secondary Market Service, timing difference in fees and other costs, Reliability Cost from other schedule . Unreconciled Difference of $22 was due to foreign exchange rate adjustments booked in PGA.[20]

[19] *See* SoCalGas August 2, 2022 Response to Cal Advocates Data Request A.22-06-005_GCIM Year 28_MDR Q 7 issued July 19, 2022.
[20] *Id*.

TABLE 2-9
Southern California Gas Company
PGA & GCIM Reconciliation of Commodity Cost
GCIM Year 28
April 1, 2021 Through March 31, 2022

Total PGA Commodity Costs		**$ 1,931,653,187**	
Total GCIM Commodity Costs		**$ 1,898,838,591**	
	Variance:	**$ 32,814,596**	
Reconciliation:			
Total PGA Commodity Cost			**1,931,653,187**
PGA Costs Excluded from GCIM:			
Playa del Rey & Aliso Production	0		
Borrego Springs LNG	128,881		
Realized (Gain)/Loss from OTC Deriv. Trans.	0		
Realized (Gain)/Loss from Exchange-Traded Deriv. Trans.	(2,728,273)		
Realized (Gain)/Loss from Foreign Currency Exchange (GST & Demand Char	14,851		
Carrying Costs of Storage Inventory	78,964		
Transportation Chg in PGA Market Gas not in GCIM Commodity Cost (1.8.2)	4,185,677		
Ruby-May Variable transportation costs to June PGA	12		
		(1,680,111)	
GCIM Related Transactions Excluded from PGA:			
Net SMS Revenue	$ (31,034,821)		
Timing differences for transaction fees and other gas costs exclud	$ 21,814		
Relability Cost from SRMA schedule	$ (121,500)		
		$ (31,134,507)	
			$ (32,814,618)
	Total PGA Commodity Cost :		**$ 1,898,838,569**
		Rounding:	**$ -**
	Less: GCIM Commodity Cost:		$ 1,898,838,591
	Unreconciled Difference:		$ (22)

In addition, Cal Advocates selected April 2021, December 2021, and January 2022 to review SoCalGas' recorded costs and revenues. Through discovery, SoCalGas 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 statements and then to SoCalGas' GCIM Year 28 report. Cal Advocates found that the selected purchase invoices reconciled with recorded amounts in the report.

2.10 Financial Derivatives

Cal Advocates 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, 2021 through March 31, 2022.

Pursuant to D.10-01-023, twenty-five percent (25%) of winter hedging gains and losses were included in the GCIM actual costs.[21] Table 2-10 shows the SoCalGas PGA Reconciliation of Financial Gains and Losses for all financial derivatives reported NYMEX transactions and over-the-counter (OTC) cleared transactions, as well as OTC swaps.[22] Associated transaction fees are also included based on the date of contract and net results that 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.

TABLE 2-10
Southern California Gas Company
PGA Reconciliation-Financial Gains & Losses
GCIM Year 28
April 1, 2021 Through March 31, 2022

NYMEX Traded/ OTC Cleared Transactions	**GCIM**	**Recorded PGA**	**Variance**
Exchange Traded Transactions (Gains)/Losses	$ (2,724,156)		
Exchange Traded Transactions Costs	$ 250		
Total:	$ (2,723,906)	$ (2,732,366)	$ (8,460)
OTC Swaps			
OTC Swaps (Gains)/Losses	-		
OTC Swap Transaction Costs	$ 4,331		
Total:	$ 4,331	$ 4,093	$ (238)
Year 28 Financial (Gain)/Losses:	**$ (2,719,575)**	**$ (2,728,273)**	**$ (8,698)**
Reconciliation:			
Reconciled Derivative PGA: 75% excluded Winter Hedge from GCIM			$ (8,698)
Public Advocates Office's 75% excluded Winter Hedge From GCIM			$ (8,347)
Other Items Due to Timeing Difference and Interst			$ 352
Total:			$ 1
	Rounding		$ (1)
	Variance		**$ -**

[21] *OIR,* D.10-01-023, 2010 Cal. PUC LEXIS 5, p. *99 (Ord. Para. 4) (Jan. 25, 2010).
[22] *See* SoCalGas August 2, 2022 Response to Cal Advocates Data Request A.22-06-005_GCIM Year 28_MDR Q 7 issued July 19, 2022.

Financial hedging costs for the Year 28 GCIM period totaled ($2,719,575). This total is comprised of ($2,723,906) in NYMEX transactions and $4,331 in OTC Swaps transactions. In compliance with D.10-01-023, seventy-five percent (75%) of the winter hedging losses are excluded from the GCIM and twenty-five percent (25%) of winter hedging losses are included in the GCIM calculation. For Year 28, ($8,346) represented seventy-five percent (75%) of winter hedging gains and ($2,781) represented twenty-five percent (25%) of winter hedging gains to be included in the GCIM calculation.[23]

In general, natural gas prices are determined through the interaction of two types of markets: cash/financial markets and physical quantities of natural gas. These markets involve 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 Citygate, where natural gas is delivered and/or sold. 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, Citygate or a specified location.

For hedging natural gas commodities, the 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.[24] These hedging transactions will generally incur related transaction fees for the purchase of the hedging contract, such as broker and premium fees.

SoCalGas regularly assesses and reviews 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 hedging transactions. To forecast natural gas prices, SoCalGas uses current future prices and basis values provided by Intercontinental Exchange (ICE) and/or NYMEX.[25]

2.11 Winter Hedges

For GCIM Year 28, SoCalGas reported ($11,127) of winter hedging net gain. Table 2-11 below shows twenty-five percent (25%) of the costs at ($2,781), which is included in the GCIM. Cal Advocates confirmed that ($8,346) or seventy-five percent (75%) of total winter hedging costs were excluded from the GCIM and included in the PGA for GCIM Year 28. These gains or losses are directly allocated to core customers

[23] *See* Cal Advocates Report, Appendix A, Table 2-3i, Winter Hedge Costs.
[24] *See* U.S. Senate Permanent Committee on Investigations: Excessive Speculation in the Natural Gas Market, July 9, 2007.
[25] *See* SoCalGas August 2, 2022 Response to Cal Advocates Data Request A.22-06-005_GCIM Year 28_MDR Q 6 issued July 19, 2022.

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, Cal Advocates determined related hedging costs based on the contract date. If the contract date is beyond March 31, it is excluded from the GCIM Year 28 reporting period.

TABLE 2-11
Southern California Gas Company
Winter Financial Derivatives (Gains) Losses
GCIM Year 28
April 1, 2021 Through March 31, 2022

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-21	$ -	$ -	$ -	$ -	$ -
May-21	$ -	$ -	$ -	$ -	$ -
Jun-21	$ -	$ -	$ -	$ -	$ -
Jul-21	$ -	$ -	$ -	$ -	$ -
Aug-21	$ -	$ -	$ -	$ -	$ -
Sep-21	$ -	$ -	$ -	$ -	$ -
Oct-21	$ -	$ -	$ -	$ -	$ -
Nov-21	$ -	$ 62	$ -	$ 186	$ 248
Dec-21	$ -	$ 47	$ -	$ 140	$ 187
Jan-22	$ (2,906)	$ 16	$ (8,719)	$ 47	$ (11,562)
Feb-22	$ -	$ -	$ -	$ -	$ -
Mar-22	$ -	$ -	$ -	$ -	$ -
Totals:	$ (2,906)	$ 125	$ (8,719)	$ 373	$ (11,127)
	Hedge (Gain)/Loss	**(2,906)**		**(8,719)**	
	Fee	**125**		**373**	
	Rounding:	**-**		**-**	
	25% Winter Hedge Included in GCIM:	**(2,781)**	**75% Winter Hedge Excluded From GCIM:**	**(8,346)**	

Source: Cal Advocates Report, Appendix, Table 2-3i.

2.12 Review of Secondary Market Services Revenues

SoCalGas manages its retail core procurement using its assets of storage inventory, injection, withdrawal rights, and core supplies and by applying these assets to

Secondary Market Services. More specifically, 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. As Table 2-12 below shows, for GCIM Year 28, SMS revenue totaled ($32,227,402) less $1,192,580 in overhead costs which results in net revenue of ($31,034,822).

TABLE 2-12
Southern California Gas Company
Summary of Secondary Market Service Revenues
GCIM Year 28
April 1, 2021 Through March 31, 2022

SMS Revenue		$ (32,227,402)
Less Overhead		$ 1,192,580
	Net Revenues	$ (31,034,822)

Source: Cal Advocates Report, Appendix, Table 2-3e.

2.13 SoCalGas Core Storage Inventory Targets

In D.06-10-029, the Commission approved a Joint Recommendation by Cal Advocates, TURN and SoCalGas to modify the utility's management and use of mid-season gas storage capacity for core customers.[26] This recommendation results in more gas entering storage during the summer months for core customer use during the winter heating season. This decision requires SoCalGas to obtain agreement from Cal Advocates and TURN for mid-season inventory targets. These targets must be maintained or an agreement from Cal Advocates 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 Settlement Agreement inf SoCalGas' 2009 BCAP, expanding gas storage by 7 Bcf during the period of 2009 to 2014.[27] Core storage inventory would receive an additional 4 Bcf beginning in 2009. The Settlement Agreement required incremental inventory capacity to increase by 1.0 Bcf each year from April 1, 2010 until April 1, 2013.

[26] *See SoCalGas,* D.06-10-029, 2006 Cal. PUC LEXIS 398, p. *3 (Joint Recommendation adopted and approved) (dated Oct. 19, 2006).
[27] *See SoCalGas,* D.08-12-020, 2008 Cal. PUC LEXIS 482, p. *47 (Ord. Para. 1 adopting) (dated Dec. 4, 2008).

On December 14, 2012 SoCalGas filed Advice Letter 4436, 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.[28]

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 via an advice letter filing.[29]

On March 30, 2020, SoCalGas filed Advice Letter 5609 to update the core inventory target from 83 Bcf to 74.593 Bcf +0/-2 Bcf. The inventory target may be modified if availability of the authorized inventory changes at the Aliso Canyon storage filed.[30]For the GCIM Year 28 mid-season storage, Cal Advocates' review of SoCalGas' inventory records show that the assigned core storage inventory level was 61.3 Bcf as of July 31, 2021. Thus, the mid-season target was achieved.[31]

The GCIM November 1 storage inventory target was 74.59 Bcf with a variance allowance of +0/-2 Bcf. As of October 31, 2021, SoCalGas reported the annual storage inventory was at 73.1 Bcf, which is within the storage inventory target.[32]

Table 2-13 below shows the core storage inventory calculation for July 31 target and October 31 target.[33]

[28] *See* Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. Prince, Dir. of Reg. Affairs, SoCalGas (Jan. 14, 2013, approving SoCalGas Adv. Letr 4436 (Dec. 14, 2012) effective Jan. 13, 2013), *available at* https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/4436.pdf.
[29] *See* Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. Prince, Dir. of Reg. Affairs, SoCalGas (July 2, 2013, approving SoCalGas Adv. Letr 4499 (May 29, 2013) effective June 28, 2013), *available at* https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/4499.pdf.
[30] *See* Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. van der Leeden, Dir. of Reg. Affairs, SoCalGas (April 29, 2020, approving SoCalGas Adv. Letr 5609 (March 30, 2020) effective April 24, 2020), *available at* https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/5609.pdf.
[31] *See* SoCalGas August 2, 2022 Response to Cal Advocates Data Request A.22-06-005_GCIM Year 28_MDR Q 8 issued July 19, 2022.
[32] *Id.*
[33] *Id*.

TABLE 2-13
Southern California Gas Company
Core Storage Inventory for Summer and Winter Targets
GCIM Year 28
April 1, 2021 Through March 31, 2022

	7/31/21	10/31/21
Bcf Target	**47**	**74.59 +0/-2**
Core Physical Inventory	**65.7**	**70.4**
Less:		
Secondary Market Services	**4.4**	**-**
Add:		
CAT	**-**	**2.7**
Total Core Storage Inventory	**61.3**	**73.1**
Note: CAT inventory only excluded in July		

2.14 Interstate Capacity Procurement

In Advice Letter 5340, effective November 9, 2018, the Commission authorized SoCalGas to update its Capacity Planning Range which was based on the California Gas Report for 2018.[34] The filing was to comply with D.04-09-022 and Advice Letter 3969-G to update SoCalGas and SDG&E's combined portfolio capacity for the winter and non-winter seasons. Table 2-14 provides a summary of the minimum and maximum capacity values by season for the reporting period.[35]

TABLE 2-14
Southern California Gas Company
Capacity Ranges
GCIM Year 28
April 1, 2021 Through March 31, 2022

	Minimum Capacity	Maximum Capacity
Non-Winter (April to October)	**912 MDth/d**	**1,216 MDth/d**
Winter (November to March)	**1,013 MDth/d**	**1,216 MDth/d**

[34] *See* Letter from E. F. Randolph, Dir. of Comm. Energy Div., to R. van der Leeden, Dir. of Reg. Affairs, SoCalGas (Nov. 9, 2018, approving SoCalGas Adv. Letr 5340 (Aug. 17, 2018) effective Sept. 16, 2018), *available at* https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/5340.pdf.
[35] See Advice Letter 5699G, p. 2.

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 of 912 MDth/d for the period of April 2021 to October 2021 and 1,013 MDth/d for November 2021 to March 2022. In Appendix C of its GCIM Year 28 Report, SoCalGas presents the actual capacity performance for the GCIM period.[36]

Proportionally, SoCalGas maintained a gas supply portfolio consisting of approximately 46% long-term supply agreements; 50% month-to-month base load agreements; and 4% daily transactions (purchases and sales).[37]

[36] *See* SoCalGas GCIM Yr. 28 Rept., p. A-30.
[37] *See* SoCalGas GCIM Yr. 28 Rept., p. A-8.

APPENDIX A

EXHIBITS FOR PUBLIC ADVOCATES OFFICE REPORT