

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Item #11 (Rev. 1)

Agenda ID 14708

RESOLUTION G-3514

April 7, 2016

ENERGY DIVISION

RESOLUTION

Resolution G-3514. Southern California Gas Company Annual Compliance Report for gas procurement activities to maintain Southern System reliability under Gas Rule 41.

PROPOSED OUTCOME:

- Approves the costs of the procurement activities undertaken to maintain Southern System reliability during the period from September 1, 2014, through August 31, 2015, with modifications.

SAFETY CONSIDERATIONS:

- This resolution evaluates activities to maintain system reliability. These activities have an indirect impact on safety since they are taken to avoid curtailments to customers, some of whom may provide essential services.

ESTIMATED COST:

- Net cost of \$4.7 million.

By Advice Letter 4866-A, filed on October 1, 2015.

SUMMARY

The Southern California Gas Company (SoCalGas) submitted Advice Letter (AL) 4866-A on October 1, 2015, providing an Annual Compliance Report (ACR) for the period September 1, 2014, through August 31, 2015. Required by Decision (D.) 09-11-006 and SoCalGas Rule 41, the report summarizes all the purchases and sales of gas made by the System Operator to maintain Southern System minimum flow requirements. **This resolution finds the actions taken by SoCalGas to be reasonable and approves all transactions.**

Different sections of Rule 41 state the criteria under which such purchases and sales may be found reasonable.

In 2014-15, there were 70 purchase transactions. Of these, 65 purchases (93 percent) met the requirements of either Section 13 or Section 14 of Rule 41. The remaining five purchases met the requirements of Section 18. Despite making up only 7 percent of transactions, Section 18 purchases, which are made under baseload contracts, accounted for 93 percent of both the volume and the dollar value of all purchases.

All 95 sales transactions met the requirements of Sections 13, 14, or 18.

SoCalGas is required to include an assessment of the cost effectiveness of its Section 18 baseload contracts in each ACR. This assessment is not intended to determine the reasonableness of any given year's transactions but rather to provide a means to continuously evaluate the baseload program itself.

In this ACR period, SoCalGas used a new method to calculate the cost effectiveness of its Section 18 contracts. This method significantly reduced the losses attributable to baseload contracts. Using the old method, the baseload contracts would have resulted in losses of \$3.12 million in 2014-15, while under the new method the losses were reported to be \$40,000. We found some aspects of the new method to be reasonable and others to be of questionable utility. **Therefore, in future ACRs, SoCalGas should use the hybrid method for calculating cost effectiveness that is described later in this resolution.**

On October 23, 2015, a major gas leak was discovered at the Aliso Canyon gas storage facility. On January 21, 2016, the Commission ordered SoCalGas to continue to reduce the amount of gas in storage until the working gas inventory at Aliso Canyon reached 15 billion cubic feet (Bcf). At this time, SoCalGas is not allowed to inject gas in any of the wells at this facility. The uncertainty surrounding the Aliso Canyon facility may impact reliability in the coming months.

If SoCalGas is required to purchase extra gas to support Southern System reliability because of the unavailability of the Aliso Canyon facility, information regarding the quantity and cost of that gas should be included in a separate section of the next Annual Compliance Report.

BACKGROUND

The southern part of the SoCalGas gas transmission pipeline system (the Southern System) requires a minimum amount of flowing supplies to operate reliably. Prior to 2009, the utility's Gas Acquisition Department maintained minimum flowing supplies into the Southern System using core customer assets. This responsibility was transferred to the Utility System Operator (System Operator) by D.07-12-019, effective April 1, 2009.¹

D.07-12-019 also approved the following tools, which can be used by the System Operator to meet Southern System reliability requirements:

- the ability to buy and sell gas on a spot basis as needed;
- the authority and the requirement to conduct at least one annual request for offers (RFO) seeking proposals for managing minimum flows; and
- the authority to submit an Advice Letter for approval of contracts that result from an RFO or open season process.

Subsequent resolutions authorized additional tools and specified certain conditions

Resolution G-3474 for SoCalGas AL 4353, issued on July 17, 2012, allowed the System Operator to move natural gas from Blythe to Otay Mesa, California, in order to support minimum flow requirements on the Southern System.

Resolution G-3487 for AL 4516, issued on October 7, 2013, gave the System Operator the authority to enter into baseload gas contracts in order to improve Southern System reliability provided they meet certain criteria. Gas purchased under baseload contracts is delivered into the Southern System every day during the December through March baseload season. Section 18 will expire on March 31, 2016, unless extended by the Commission.

¹ As stated in Rule 41, the mission of the Utility System Operator is to maintain system reliability and integrity while minimizing costs at all times. The System Operator includes all of the departments within SoCalGas and San Diego Gas & Electric Company that are responsible for the physical and commercial operation of the pipeline and storage systems and specifically excludes the Utility Gas Procurement Department.

Resolution G-3486 for AL 4515, issued on December 5, 2013, approved a revision to SoCalGas' Rule No. 30 that clarified the procedures to be used when there is a systemwide overnomination but additional supplies are still needed in the Southern System. It specified that "Southern Transmission Receipt Points will not be reduced in any cycle below 110 percent of the Southern System minimum flowing supply requirement." To ensure that this policy did not negatively impact other receipt points, the resolution also required SoCalGas to include the following information in its Annual Compliance Report: 1) the frequency of events where overnominations occurred systemwide yet the System Operator was required to maintain minimum flows, 2) the effectiveness of the 10 percent margin of error and any need to increase or decrease the margin, and 3) the observed impact on other receipt points.

Pursuant to D.09-11-006, SoCalGas must submit an Annual Compliance Report to demonstrate that the natural gas procurement activities it undertook to support Southern System reliability were in compliance with the criteria described in Sections 9 through 18 of Rule 41. The ACR must be submitted by a Tier 3 Advice Letter.

On September 30, 2015, SoCalGas submitted its Annual Compliance Report for the period September 1, 2014, through August 31, 2015, with AL 4866. SoCalGas submitted AL 4866-A on October 1, 2015, replacing AL 4866 in its entirety.

NOTICE

Notice of AL 4866-A was made by publication in the Commission's Daily Calendar. SoCalGas states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

Advice Letter 4866-A was not protested.

DISCUSSION

This resolution finds the actions taken by SoCalGas to maintain the Southern System minimum flow requirement to be reasonable and approves all of the transactions presented in AL 4866-A.

SoCalGas incurred procurement costs of \$113,360,618 for spot and baseload purchases² as well as \$5,204,286 in backbone transportation services charges.³ Sales of the purchased gas yielded \$113,877,980. The total net cost was \$4,687,014, a 64 percent drop from last year.

The volume purchased was 10 percent lower than in 2013-14.⁴ The decline in overall costs relative to the last ACR year was caused primarily by a reduction in spot market purchases, low prices, and reduced volatility in natural gas markets. At 14 cents/Dth, the net cost per decatherm was 60 percent lower than in the last ACR period, when it averaged 35 cents/Dth.

The criteria for determining the reasonableness of spot and baseload gas transactions are described in Sections 13, 14, 15, 16, and 18 of Rule 41. In 2014-15, all transactions fell within Sections 13, 14, and 18.

Section 13 states that purchases and sales must be within a specified range. For day-ahead transactions, the range is +/- 10% of the Intercontinental Exchange (ICE) Weighted Average Index. For intraday transactions, the purchase price can be no more than 110% of the ICE High, and the sales price can be no less than 90% of the Ice Low.

Section 14 applies to purchases and sales that fall outside the Section 13 safe harbor. For purchases, if volumes available on ICE meet or exceed the minimum flow requirements, transactions for the volumes offered through ICE are deemed reasonable. When less than the required volume is available on ICE, offers from at least three different suppliers must be obtained for comparison. SoCalGas must then accept the lowest cost offers that meet the quantities required. For sales, Section 14 states that "The Operational Hub may also post an offer/bid on ICE for volumes."

² Purchase costs have fluctuated over the years, ranging from \$8.2 million in 2010-11 to \$185.1 million in 2013-14.

³This equates to an average Backbone Transmission System (BTS) charge of 15.7 cents/Dth for the period covered by the ACR compared to 13.3 cents/Dth for the previous 12-month period.

⁴ SoCalGas purchased 33,076,663 Dths of natural gas to support Southern System reliability in 2014-15 and 36,946,128 Dths in 2013-14.

Section 18 allows SoCalGas to enter into baseload contracts for the winter season in order to reduce the amount of gas it needs to purchase on the daily spot market. To be deemed reasonable, baseload contracts must meet the following criteria: 1) the total cumulative baseload volume cannot exceed 255,000 Dths/day; 2) the price must be less than or equal to NGI's Bidweek average for "Southern Cal. Bdr. Avg." plus 8.2 cents/Dth; 3) the term is limited to the December-March season; and the baseload contracts are made during the nine-month period directly preceding that season.

As required by Resolution G-3480, AL 4866-A provided the following table of purchase transactions and the Sections of Rule 41 with which SoCalGas asserts each transaction complies.

	# Transactions	%	\$	%
Section 13	42	60	4,963,583	4%
Section 14	23	33	2,958,261	3%
Section 15	0	0	-	0%
Section 18	5	7	105,438,774	93%
Total	70	100	113,360,618	100%

Energy Division staff reviewed Attachment B to AL 4866 and found that all purchase and sales transactions were correctly categorized and met the reasonableness criteria specified in Rule 41. They are therefore approved.

Baseload Contract Effectiveness Relative to Spot Purchases

In Resolution G-3487, the Commission ordered SoCalGas to incorporate an evaluation of the cost effectiveness of baseload contracts compared to spot market purchases in its Annual Compliance Reports. This assessment has no impact on whether or not Section 18 transactions are deemed reasonable. If Section 18 purchases comply with the criteria laid out in Rule 41, they are reasonable. Rather, the assessment is a means of evaluating the baseload program itself. As noted above, Section 18 expires on March 31, 2016, unless it is renewed by the Commission.

Baseload contracts are intended to act as a form of insurance against volatility. In volatile years, they shield ratepayers from unexpected spikes in the spot market.

In stable years, they can cost more than spot market purchases. The assessment required by Resolution G-3487 is a way for the Commission to determine whether SoCalGas is acquiring a reasonable amount of insurance.

In this ACR, SoCalGas used a new method for calculating the cost effectiveness of baseload contracts, which significantly improved their reported cost effectiveness.

Previously, SoCalGas determined the net cost of additional spot purchase only on the days when spot gas was actually purchased. The net cost for that day's spot market gas was then used to estimate how much the roughly 255,000 Dth of baseload gas would have cost on the spot market. The sum of these daily estimates was reported as the total seasonal cost of spot gas without the baseload contracts.

This year, SoCalGas made three significant changes to its method for calculating the cost effectiveness of baseload contracts.

First, rather than calculating the volume of additional spot gas needed only on the days when spot gas was actually purchased, the utility determined whether enough gas would have been delivered to meet the Southern System's minimum requirement without the baseload contracts for every day of the baseload season. If not, SoCalGas calculated the difference between the total volume of core, noncore, and spot gas purchases and the Southern System minimum requirement to estimate how much gas would have been needed in the absence of baseload contracts. This change led to a significant increase in the estimate, from 2 MMDth using the old method to 8.5 MMDth using the new method.

Second, SoCalGas changed how the net cost of these hypothetical spot gas purchases was estimated. Last year, SoCalGas used the actual daily purchase and sales prices of spot gas to estimate what the net cost would have been if an additional 255,000 Dth of gas had to be bought on the spot market that day. In AL 4866, SoCalGas instead calculated a seasonal, per-decatherm net price by dividing the net cost of the season's spot gas purchases by the volume.

Net Cost of Spot Market Gas for the Baseload Season

Table 2		
Dec-Mar Spot Net Amt Flowed (Dth)	Dec-Mar Spot Total Net Cost (\$)	Dec-Mar Spot Unit Net Cost (\$/Dth)
372,585	\$144,234	\$0.39

Third, the utility added a 15 percent “markup factor” to that per-decatherm net cost, resulting in an average net cost of \$.45/Dth.⁵ SoCalGas argued that the markup was necessary because “costs increase as spot purchase volumes increase.” SoCalGas did not provide any evidence or data to demonstrate that a markup in the amount of 15 percent was appropriate.

The utility then multiplied the marked-up, per-decatherm net cost by the volume of spot gas that would have been needed in the absence of baseload contracts to arrive at the total net cost: \$.45/Dth x 8.5 MMDth = \$3.83 million.

SoCalGas provided the table below to show the cost effectiveness of its baseload contracts relative to spot gas transactions.

Cost-Effectiveness of Southern System Baseload Contracts

Table 3			
	Dec 2014 - Mar 2015 Volume (MMDth)	Net Cost (\$Millions)	Average Net Cost (\$/Dth)
Baseload	30.9	\$3.88	\$0.13
Additional Spot Purchases Needed in Absence of Baseload	8.5	\$3.83	\$0.45
		(\$0.04)	

These changes significantly improve the estimated cost effectiveness of baseload contracts. Using the old method, the estimated net cost of the 2014-15 baseload contracts relative to spot gas purchases is \$3.12 million. Using the new method, it is \$40,000.

⁵ \$.39/Dth x 1.15 = \$.45/Dth.

This wide variation underscores the importance of using a standard method for calculating the cost effectiveness of baseload contracts so that year-to-year comparisons can be made.

SoCalGas' new method for calculating the volume of spot gas needed in the absence of baseload contracts is reasonable.

The volume of gas needed in the absence of baseload contracts should be the volume needed to meet the Southern System minimum requirement on any day when the contracts are in effect.

We have concerns about the method for estimating the net cost of spot market purchases in the absence of baseload contracts and the addition of a 15 percent markup.

In a period of stable gas prices like the winter of 2014-15, when spot prices ranged from a low of \$3.10/Dth to a high of \$3.75/Dth, using the seasonal average net cost provides a reasonable estimate of what hypothetical purchases of spot gas would have cost.

However, in a volatile year like 2013-14, when spot prices ranged from \$4.38/Dth to \$33.00/Dth, using a seasonal average net cost could distort the estimate because the volume of gas needed varies widely from day to day.

According to SoCalGas' estimates for 2014-15, the volume of spot gas needed in the absence of baseload contracts ranged from 923 Dth on March 22, 2015, to 255,000 Dth on December 31, 2014.⁶ Using one seasonal average price masks volatility and could produce misleading results if, for example, a maximum volume day coincided with a peak price day.

To determine the cost effectiveness of baseload contracts, SoCalGas should use a hybrid method that combines SoCalGas' new method for calculating volume with a daily, rather than a seasonal, average price.

⁶ Note: SoCalGas would actually have needed 257,771 Dth to meet the Southern System minimum requirement on December 31, 2015. However, for the purpose of determining the cost effectiveness of baseload contracts, the utility capped the volume needed in their absence at the maximum daily volume allowed for baseload contracts: 255,000 Dth.

In the hybrid method, the volume of gas needed in the absence of baseload contracts would be determined by calculating how much additional spot gas would have been needed to meet the Southern System minimum requirement if flowing supplies to Ehrenberg were 255,000 Dths lower for each day of the winter period.

The daily volume would then be multiplied by an estimated purchase price, which would be equal to 110 percent of that day’s SoCalGas border index. The estimated sales price would be equal to 99.5 percent of the SoCalGas Citygate Index. The daily net cost would include BTS charges and in-kind fuel requirements. As shown in Table 4 below, when the hybrid method is used without applying SoCalGas’ proposed 15 percent markup, the estimated net cost of baseload contracts relative to spot gas purchases rises to \$550,000.

**Cost-Effectiveness of Southern System Baseload Contracts:
Hybrid Method Without 15% Markup**

Table 4			
	Dec 2014 - Mar 2015 Volume (MMDth)	Net Cost (\$Millions)	Average Net Cost (\$/Dth)
Baseload	30.9	\$3.88	\$0.13
Additional Spot Purchases Needed in Absence of Baseload	8.5	\$3.33	\$0.39
		(\$0.55)	

We are not convinced that the 15 percent markup proposed by SoCalGas is necessary for determining cost effectiveness.

Actual spot gas purchases are considered reasonable under Rule 41 at prices up to 10 percent higher than the SoCalGas border price but may be reasonable at even higher prices.

On days when no spot gas is purchased and the volume needed in the absence of baseload contracts is low – as in the March 22, 2015, example above, when only 923 Dth of additional spot gas would have been required – a 10 percent markup from the gas index price should be sufficient for demonstrating cost effectiveness. Even on days when spot gas purchases are made, a 10 percent markup should be sufficient much of the time.

While we don't find that a 15 percent markup is generally needed to demonstrate cost effectiveness (for example, no such markup was needed or employed in 2013-14), we will not preclude SoCalGas from arguing in future ACRs that such a markup is warranted depending on market conditions, particularly on certain days.

Future ACRs should use the hybrid method outlined above to determine the cost effectiveness of baseload contracts so that year-to-year comparisons of the performance of baseload contracts can be made.

Baseload contracts provide an important source of insurance against the kind of market volatility seen in 2013-14, and they remain an important tool for supporting the Southern System. However, no matter how the cost-effectiveness calculation is done, there were no savings from baseload contracts in 2014-15. Relatively few spot market purchases were necessary due to low prices and a stable supply of gas throughout the season. Despite the losses sustained in this ACR period, the baseload contract transactions were reasonable under the criteria specified in Rule 41, Section 18.

The overall cost effectiveness of baseload contracts relative to spot gas transactions should be viewed over more than just a single year. For example, while in 2014-15 spot gas purchases would have been less expensive than baseload contracts, in 2013-14 spot gas purchases would have been over \$8 million more expensive than baseload contracts. Further, if SoCalGas had calculated the volumes of spot gas actually needed to meet Southern System requirements in 2013-14, the spot gas transactions would have been even more expensive. Volatility in the Southern System requirement and in daily gas prices from year to year will significantly affect the difference in the cost of baseload contracts relative to spot gas transactions.

As required by Resolution G-3486, SoCalGas provided information about the impact of the recent changes to Rule 30. These changes established that Southern Transmission Receipt Points will not be reduced below 110 percent of the Southern System minimum flowing supply requirement, even when a High Operational Flow Order (OFO) has been issued. There were 40 days in which a Southern System reliability purchase coincided with a High OFO. All of the reliability purchases in question consisted of baseload gas contracted for months in advance. On all 40 days, scheduled volumes remained above the 110 percent

minimum, so the minimum had no impact on other receipt points.

SoCalGas should provide information on the additional gas, if any, that was purchased to support Southern System reliability because of the unavailability of the Aliso Canyon Storage facility in a separate section of its 2016 Annual Compliance Report.

On October 23, 2015, a major gas leak was discovered at the Aliso Canyon gas storage facility. On January 21, 2016, the Commission ordered SoCalGas to continue to reduce the amount of gas in storage until the working gas inventory at Aliso Canyon reached 15 billion cubic feet (Bcf). At this time, SoCalGas is not allowed to inject gas in any of the wells at this facility.

A lack of storage capacity at Aliso Canyon may have direct or indirect effects on Southern System reliability. If the lack of storage leads to an increase in gas purchased to support the Southern System, the quantity and cost of that additional gas should be included in a separate section of the Annual Compliance Report.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments.

No comments were submitted.

FINDINGS

1. Pursuant to D.09-11-006 and Rule 41, SoCalGas must submit an Annual Compliance Report by October 1st to demonstrate that the natural gas procurement activities undertaken to support Southern System reliability were in compliance with certain standards, criteria, and procedures.

2. SoCalGas submitted AL 4866-A on October 1, 2015, providing an Annual Compliance Report for the period September 1, 2014, through August 31, 2015.
3. SoCalGas incurred \$113,360,618 in procurement transaction costs to support Southern System reliability during the ACR period. These costs were incurred through 70 spot and baseload purchases.
4. All of the gas purchases met the requirements to be deemed reasonable under Rule 41 and should be approved. Of the 70 purchases, 42 met the criteria of Section 13 of Rule 41, 23 met Section 14 criteria, and five met Section 18 criteria.
5. The Operational Hub resold the purchased gas at the SoCal Citygate for \$113,877,890. The total net cost, including transportation costs, was \$5,204,286.
6. SoCalGas used a new method for determining the cost effectiveness of baseload contracts relative to spot gas transactions, which resulted in a significant increase in the estimated cost effectiveness of baseload contracts compared to the old method.
7. The new method changed the way both the volume and the per-unit net cost of needed spot gas was calculated and added a 15 percent markup to the total net cost.
8. The new method for calculating the volume of spot gas needed in the absence of baseload contracts is reasonable.
9. A hybrid method for calculating the per-unit net cost of the spot gas needed in the absence of baseload contracts was developed.
10. The hybrid method employs gas price indices rather than actual spot gas net prices or a seasonal average net cost.
11. SoCalGas did not provide evidence to justify the addition of a markup factor in the amount of 15 percent to the total net cost of spot gas purchases.
12. SoCalGas is not precluded from arguing that a markup factor is warranted in future ACRs under certain market conditions.
13. SoCalGas provided a report on the impact of recent changes to Rule 30, which required that Southern Transmission Receipt Points not be reduced below 110 percent of the Southern System minimum flowing requirement, even when a High Operational Flow Order has been issued. The report showed that in 2014-15 the rule change had no impact on other receipt points.

14. The Aliso Canyon gas storage facility may not be able to operate at its normal capacity in 2016 due to concerns raised by the facility's gas leak.
15. A lack of storage capacity at Aliso Canyon may have direct or indirect effects on Southern System reliability.
16. If SoCalGas must make additional gas purchases to support Southern System reliability due to the lack of storage at Aliso Canyon, the quantity and cost of that gas should be included in a separate section of the 2016 Annual Compliance Report.

THEREFORE IT IS ORDERED THAT:

1. The purchase and sales transactions detailed in Southern California Gas Company Advice Letter 4866-A are approved.
2. In all future Annual Compliance Reports, SoCalGas shall calculate the cost effectiveness of baseload contracts using the hybrid method outlined above. In the hybrid method, the volume of gas needed in the absence of baseload contracts is equivalent to the difference between the total volume of core, noncore, and spot gas purchases and the Southern System minimum requirement. A purchase price of 110 percent of the SoCalGas Border index price and a sales price of 99.5 percent of the same index is applied to this volume. The daily net cost includes BTS charges and in-kind fuel requirements.
3. If SoCalGas must make additional gas purchases to support Southern System reliability due to the lack of storage at Aliso Canyon, the quantity and cost of that gas should be included in a separate section of the 2016 Annual Compliance Report.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on April 7, 2016; the following Commissioners voting favorably thereon:

TIMOTHY J. SULLIVAN
Executive Director