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SoCalGas Comments on Joint Workshop on SoCal Natural Gas Prices

Please find attached the Southern California Gas Company's comments on the CEC/CPUC joint workshop on Southern California Natural Gas Prices

Additional submitted attachment is included below.



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Subject: Joint Agency Workshop on Southern California Natural Gas Prices, Docket # 18-IEPR-03

Southern California Gas Company (SoCalGas) thanks the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) (jointly, "Joint Agencies") for conducting the Joint Agency Workshop on Southern California Natural Gas Prices (Workshop) on January 11, 2019 as part of the 2018 Integrated Energy Policy Report (IEPR) Update proceeding. Below, SoCalGas offers comments, responses, and clarifying explanations regarding:

- 1) The cause of recent reliability and price volatility challenges;
- 2) Proposed solutions to these challenges;
- 3) Pipeline capacity reductions and outages; and
- 4) Questions raised by the Joint Agencies during the Workshop.

1. <u>Cause of Southern California's Reliability and Price Volatility Challenges</u>

Numerous Workshop participants and members of the Joint Agencies attribute the reliability challenges and SoCal Citygate price volatility to the "continuing outages and reduced capacity on key natural gas transmission pipelines."¹ This oversimplifies a complex issue and overemphasizes the pipeline outages and reductions as a constraint on supply. The Southern California area is experiencing reliability and affordability challenges because of supply and demand mismatches. SoCalGas' system capacity and supply are primarily a function of two components: (1) transmission pipelines, which bring gas into and then transport it throughout the system; and (2) underground natural gas storage connected to transmission pipelines near system load. While one component of the system's limited supply is the transmission pipeline reductions and outages, the other critical and more readily addressed component is storage operating constraints resulting from the CPUC's November 2, 2017 Aliso Canyon Withdrawal Protocol (Withdrawal Protocol) restricting the use of the Aliso Canyon.

During the Workshop, a significant amount of time was spent discussing transmission pipeline outages, reductions, and timeframes for when pipelines would operate at increased capacities. Reductions or outages on Line 235-2, Line 3000, and Line 4000 result in a reduction of approximately 0.7 billion cubic

¹ Notice of Joint Agency Workshop on Southern California Natural Gas Prices at 1.

feet per day (Bcfd) of system supply capacity. This supply reduction is notably less than the over 1 Bcfd of withdrawal capacity at Aliso Canyon that cannot be scheduled and can only be used as a last resort, despite the Division of Oil, Gas, and Geothermal Resources (DOGGR) and the CPUC deeming the Aliso Canyon safe to resume injection a year and a half ago. The most straightforward and immediate solution to address system supply limitations and restrictions is to increase supply by removing or lessening restrictions on the use of Aliso Canyon.

2. <u>Proposed Solutions to Reliability and Price Volatility Challenges</u>

a. <u>Allow Aliso Canyon to be Used as Designed and Intended</u>

The SoCalGas system is designed around strategically located underground storage resources to provide system flexibility and resiliency. The existing pipeline outages and reductions on the SoCalGas system are occurrences that a prudent operator plans for and has capabilities in place to mitigate. For SoCalGas, underground natural gas storage is designed and intended to be a key mitigation measure by responding quickly to manage supply and demand mismatches.

Aliso Canyon is by far the largest storage facility on the SoCalGas system and constitutes over half of SoCalGas' storage assets. It could have, and still can, safely address the reliability and price volatility challenges Southern California is facing. SoCalGas has performed significant work and analysis to validate the safety and integrity of Aliso Canyon. DOGGR and the CPUC have already determined that Aliso Canyon is safe to operate, risks of failure have been addressed, and well integrity has been verified.²

The Withdrawal Protocol, however, currently limits withdrawals from SoCalGas' largest facility to a supply of last resort, despite the comprehensive safety review concluding that the facility is safe to operate. As a result, shippers that hold firm storage rights are unable to schedule, and therefore are unable to rely on, withdrawals from Aliso Canyon to balance their supply and demand. These state-imposed restrictions effectively eliminate Aliso Canyon's ability to regularly support the system and alleviate potential market stress.

To illustrate one impact of restrictions on Aliso Canyon's withdrawal capability, there were 299 Low Operational Flow Order (OFO) days on the SoCalGas system from December of 2015 to December of 2018. SoCalGas determined that this number would have been reduced to at least 69 Low OFO days, if Aliso Canyon did not have withdrawal restrictions and could have been available to help balance the system's demand and supply requirements. Withdrawal restrictions on Aliso Canyon prohibit a massive supply source located in the Los Angeles basin, which cannot be replaced with additional supplies from outside the system.

The Withdrawal Protocol should be modified or eliminated to allow Aliso Canyon to increase system flexibility and reliability, add to available supplies, and reduce the need for customers to seek additional supplies during periods of market stress and limited supplies elsewhere. Changes to the Withdrawal Protocol can be effective immediately, will increase supply, and should reduce the number of Low OFOs and dampen price volatility. Notably, during the Workshop, changes to the Withdrawal Protocol were also suggested by the California Independent System Operator (CAISO) as a potential means to reduce the likelihood of triggering higher OFO levels and to mitigate economic risks.

² Available at:

 $http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/OpenLettertoSoCalGasandPublic.pdf$

b. <u>Reduce OFO Stages 4 and 5 Noncompliance Charges</u>

At the Workshop, Southern California Edison (Edison) suggested a reduction to the Stage 4 and Stage 5 OFO noncompliance charges from \$25/Dth to \$5/Dth, on an interim basis.

Changes to the Stages 4 and 5 OFO noncompliance charges are being addressed by the CPUC as part of a petition for modification jointly filed by Edison and the Southern California Generation Coalition on August 15, 2018.³ The petition seeks to reduce SoCalGas' CPUC-approved noncompliance charges for Stages 4 and 5 OFOs based on the contentions that (1) the current OFO structure and noncompliance charges do not meaningfully increase gas system reliability and (2) the mere existence of higher OFO charges could significantly contribute to gas price spikes at the SoCal Citygate and wholesale power prices. SoCalGas challenges the validity of the petition's claims and sufficiency of evidence to support those claims.

SoCalGas' presentation at the Workshop shows that the rate of imbalance correction increases when a Stage 4 Low OFO is called compared to a Stage 3 Low OFO. Customers appear to respond more to a Stage 4 Low OFO (with its higher noncompliance charge) than they do to a Stage 3 Low OFO. Therefore, system scheduling data supports SoCalGas' position that the current OFO structure, with its increasing noncompliance charge design, achieves its purpose to incentivize customers to keep their gas supplies balanced. In addition, the Withdrawal Protocol requires SoCalGas to use all available tools to increase flowing supplies and to limit the use of Aliso Canyon. Changes as Edison proposes would effectively limits those tools, counter to the intent of the Withdrawal Protocol, and could lead to greater use of Aliso Canyon or Stage 5 Low OFOs.

Following the Workshop, on January 15, the CPUC issued a ruling preliminarily listing the issues to be considered in addressing the petition for modification, and the procedural timeline to resolve the petition.⁴ Among the issues identified are: (1) whether there is a linkage between noncompliance charges and recent price volatility; (2) whether widening the gap between the \$5/Dth Lof OFO and the \$50/Dth Emergency Flow Orders (EFOs) noncompliance charge will increase the number of EFOs and increase gas market volatility; and (3) whether the CPUC should consider a more conservative change to the OFO noncompliance charge structure than what the petition seeks. The proceeding in which the petition for modification was filed is the appropriate venue for the CPUC to receive and weigh evidence to address these issues.

c. <u>Core Balancing</u>

Some workshop participants suggested that requiring SoCalGas' Gas Acquisition Department (Gas Acquisition) to balance their supplies to their actual usage (or estimated actual usage), as opposed to continuing to balance against a same-day demand forecast, would improve system reliability or reduce price volatility. However, there is no factual evidence showing that changing the core balancing rules is a solution to the current reliability and price volatility challenges.⁵

The CPUC is addressing core balancing procedures in Application 17-10-002. In that proceeding, SoCalGas provided testimony and evidence that addresses: (1) the core's inability to balance to actuals

³ A.14-06-021/A.14-12-017.

⁴ Available at: http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M258/K116/258116722.PDF.

⁵ In addition, the period in which Edison has raised concerns occurred during the summer period, a time when core demand is fairly low and stable, when a large portion of Gas Acquisition purchases are to inject into storage for the coming winter season. Over the last two summers, however, SoCalGas has been directed by the CPUC to maximize injections into storage to optimize storage inventory levels.

because it does not have access to real-time usage data; (2) the lack of factual evidence showing that changing core balancing rules will decrease the frequency of OFOs or improve system reliability; and (3) why costs for core customers will likely increase if the core balancing rules are changed. As detailed in that proceeding, if Gas Acquisition is required to balance to actual demand, it may re-schedule its storage activity or increase entering the market to purchase or sell gas to re-balance its deliveries to cure its imbalance. These activities would occur after the deadline for calling an OFO and, as a result, not impact OFOs, but could impact the daily cost of gas. As such, requiring core to balance to actuals will likely increase costs to core customers in exchange for speculative and unproven claims.

d. <u>Temporarily Suspend the Backbone Priority Capacity Allocation System</u>

Edison suggests suspending the backbone priority capacity allocation system and reverting to "pro-rata" allocations to shift commodity pricing to SoCal Border trading points. This would present a huge disruption to the southern California gas market. Implementation prior to October 1, 2020, when new capacity contracts will take effect, would require the CPUC to break existing Backbone Transportation Service (BTS) agreements between SoCalGas and its customers who invested in firm backbone service to meet their supply reliability needs and cover contingencies, like extended capacity constraints. Implementation would require the restructuring of the entire southern California gas marketplace, overall system operations, and the gas scheduling system. This significant change could require up to one year or more to implement.

Under this proposal, priority for scheduled gas deliveries to SoCalGas system receipt points would no longer be based on the priority of a customer's BTS rights but revert to being based on the priority of their capacity rights on the upstream pipelines. Edison's proposal is essentially to redistribute system supply access. This would negate the benefits to customers who planned and managed their supplies by procuring firm system backbone transportation, effectively penalizing them and rewarding those customers who made the decision to rely on SoCal Citygate supplies to meet their needs. Further, since Gas Acquisition is the largest holder of firm system backbone transportation, a redistribution of system supply access would likely reduce core customer supply reliability and/or raise the costs for serving them.

Edison has provided no evidence that such a radical change to the long standing and fully adjudicated SoCalGas system of firm backbone rights will have a positive effect on the current gas price issues being evaluated.

e. <u>"Net out" Daily Imbalances Against Monthly OFO Noncompliance Charges</u>

Edison suggests that the CPUC "net out" daily imbalances against any monthly OFO penalties if the daily imbalance supported gas system reliability.

OFOs are an important tool the System Operator uses to manage daily system reliability. Monthly imbalance limits are necessary to preserve the inventory of those who have paid for firm storage rights. Edison's proposal could potentially create more system issues by providing customers with disincentives to balance their supply and demand daily. It would allow customers who over-deliver on Low OFO days and underdeliver on High OFO days to have a higher monthly balancing tolerance than what they pay for using already constrained storage assets held by others. SoCalGas recommends maintaining the current balancing regime that encourages customers and their suppliers to be in balance scheduled when system conditions require it on OFO days.

f. <u>Electric Generation Procurement Tariff</u>

Edison also suggested a longer-term solution of requiring SoCalGas to offer an electric generation gas procurement tariff.

This is an interesting concept and SoCalGas is amenable to further detailed discussions and subsequent analysis to develop a potential framework for an electric generation gas procurement tariff that could protect core reliability and affordability as well as system reliability.

3. <u>Pipeline Capacity Reductions and Outages</u>

There was also discussion at the Workshop regarding pipeline outages and capacity reductions on the SoCalGas system. SoCalGas addresses below: (1) these outages and reductions; and (2) requests for additional transparency from the market and our regulators.

Safety is at the foundation of SoCalGas' business. It is prudent for SoCalGas to take the time to validate the integrity of these pipelines and complete remediation measures. When outages or pressure reductions occur, SoCalGas works expeditiously to safely bring lines back into service. Our crews often work in parallel on multiple sections of a line(s) and additional resources are added to expedite this process when it can be accomplished in a safe and efficient manner. While completion timelines are prepared based upon experience, sound construction practices, and the safety of employees and contractors, they are often influenced by factors outside SoCalGas' control – such as permitting delays, extreme weather, or unanticipated conditions encountered during excavation and repair operations. Advances in pipeline integrity technology also impact the time involved in safely assessing, remediating, and returning a pipeline to service.

Following high profile failures in Bellingham, Washington and Carlsbad, New Mexico, the Pipeline Safety Act of 2001 prompted additions to federal regulations that are codified in 49 CFR Part 192, Subpart O, establishing Transmission Integrity Management Program (TIMP) requirements. TIMP is an ongoing programmatic effort designed to sustain a safe and reliable natural gas supply and delivery system by maintaining the gas system integrity through safe operating practices. The objectives of TIMP are accomplished through continual monitoring and periodic assessments of transmission pipelines.

Historically, pipeline integrity was primarily monitored through above-ground surveys to detect leaks, indications of third party construction activity near the pipeline, and monitoring of cathodic protection read points. More recently, there have been dramatic engineering and technological advances in the pipeline industry, specifically the development of in-line-inspection (ILI) tools, which now allows pipeline operators to assess pipeline integrity from inside the pipelines. Sophisticated and sensitive ILI tools can travel through the pipe and measure and record anomalies such as corrosion, cracks, laminations, dents, gouges, and other conditions. These tools can identify previously unknown safety conditions that require further analysis, validation, remediation, or monitoring. On some systems the discovery of conditions that warrant analysis can number in the thousands or tens of thousands – drastically increasing the amount of work that operators must undertake to proactively manage pipeline safety and risk.

Once data is gathered by an ILI tool, a report is prepared and submitted to the pipeline operator. The operator then reviews the report and prepares a Validation Plan to determine the accuracy of the information obtained by the ILI tool. Understanding the ILI tool's performance, which can include over-indicating, under-indicating or mischaracterizing anomalies, is critical to understanding how the rest of the anomalies on the pipeline should be evaluated. Validation results are then used to determine if

additional remediation is required to achieve an appropriate margin of safety and establish the appropriate reassessment interval. 6

The ILI assessments have created a wealth of information on Lines 3000, 235-2, and 4000. The information gathered forms the basis for SoCalGas' plan to safely and expeditiously address this "family" of pipelines (meaning, the pipelines are similar, for example, in terms of original construction and locational geology), particularly in areas that exhibit the same characteristics as the segment that failed on Line 235-2. SoCalGas is continually working through the process of assessing and validating the information, performing remediation, and returning the lines to safe and reliable service.

Workshop participants have requested additional and more regular updates on the status of the work on the pipeline reductions and outages. SoCalGas currently provides regular updates to CPUC's Energy Division and Safety and Enforcement Division on the progress of these projects and the impact of the reductions and outages on system reliability. To provide market participants additional information on this work, SoCalGas commits to providing more regular updates on Envoy for the below projects. SoCalGas plans that these updates will mirror the tables below and will occur as the projects progress.⁷

a. <u>Line 235-2</u>

Line 235-2 (largely a 1957 vintage pipeline) has been out of service for assessment and remediation since a rupture occurred on the pipeline on October 1, 2017. SoCalGas has remediated and repaired the ruptured segment, but, as detailed below, SoCalGas has also initiated additional work to assess, analyze, and repair other segments on Line 235-2 that are of the same "family" of pipeline.

Unlike other pipeline repair projects, this is not merely the repair of a pipeline rupture. This entire segment of pipeline has undergone an extensive engineering study to achieve the best operating risk and safety reliability given the data available. After the rupture, SoCalGas retained outside experts to analyze the root cause of the incident. The root cause analysis results included recommended enhancements in the areas of in-line inspection data analysis, cathodic protection data integration practices, and procedural changes for pressure reduction requirements. To this end, further study by experts into the Line 235-2 ILI data will provide the specific engineering updates necessary to address the root cause findings. This work is on-going and is expected to continue through at least the 2nd quarter of 2019.

In parallel to this analysis, SoCalGas retained additional experts to address the structural reliability of the entire remaining line segment associated with the ILI inspection on Line 235-2. This effort demonstrated that a combination of both pressure reduction and targeted repairs optimizes the near-term risk reduction on Line 235-2. Additionally, the results show that ILI on a more frequent basis will be required in the coming years to better inform future structural reliability studies with improved data.

Based on the analyses and recommendations from the structural reliability study, SoCalGas prepared a remediation plan. This plan includes 10 job sites: six pipeline replacement job sites (five of which have

⁶ The Federal Code identifies conditions that require immediate action prior to the completion of the validation process. These conditions are referred to as "immediate" or "safety related" conditions. Immediate and safety-related conditions are deemed severe enough to require a temporary reduction in operating pressure or shutdown of the pipeline until such time that the condition can be addressed. Reducing the pressure of a pipeline is a significant factor in mitigating the risk of a catastrophic pipeline failure.

⁷ Although SoCalGas has used reasonable efforts to assure its accuracy and timeliness, this information is preliminary operational data and can be negatively impacted by delays or errors in electronic transfers, data entry, communication failures, or other causes. No representation is made that the contents are free from error. SoCalGas assumes no responsibility for use of, or reliance on, this information by any party, and specifically advises such parties to discuss any decisions or actions related hereto with their own advisors and experts.

impacts to jurisdictional waters) to replace approximately 3.4 miles of pipe (Replacement Sites 1-6); two sites with cathodic protection (CP) replacements; and two sites that will have mainline valves (MLVs)⁸ installed during the outage.

- Replacement Site 1/3 (6,800-foot pipeline replacement)
- Replacement Site 2 (2,700-foot pipeline replacement)
- Replacement Site 4 (2,700-foot pipeline replacement)
- Replacement Site 5 (2,700-foot pipeline replacement)
- Replacement Site 6 (2,300-foot replacement. Construction is complete.)
- MLV Site 1
- MLV Site 2
- CP Replacement Site 1
- CP Replacement Site 2

SoCalGas has deployed significant resources to address these sites. For example, for the replacement sites, SoCalGas may deploy multiple crews, totaling 40 to 70 individuals, to work each site, along with 30 to 50 pieces of equipment.⁹ Until January 8, 2019, when SoCalGas received its California Dept of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement (LSA Agreement), the crews were working on all areas outside of jurisdictional waterways at a pace that would keep the crews from idling and demobilizing from the site. The work was timed and resourced so that, upon receipt of the LSA Agreement, there were only a few days remaining to complete work outside of the jurisdictional waterways.

To expeditiously complete work on the Line 235-2, SoCalGas has undertaken numerous measures, including:

- Increasing working hours from 5 days/10 hours to 6 days/12 hours for all crews;
- Adding an additional excavation and backfill crew so that all sites are being addressed concurrently;
- Adding an additional asbestos abatement crew for coal tar pipe wrap removal;
- Placing the non-destructive examination contractor on notice that if additional resources are needed, they should have them available; and
- Streamlining the inspection process, so that it does not impact the removal schedule of the old pipeline segments.

SoCalGas has also considered other measures to expedite work on Line 235-2 but has decided against their implementation to avoid inefficiencies and promote safety and good construction practices. These include:

- Procuring additional resources (equipment and labor): the contractor has indicated that this may slow the process down because the limited width of the Right of Way is not enough to accommodate extra equipment, spoils, and through traffic. Further, adding additional resources increases safety concerns.
- Further increasing the work hours/days or moving to 24-hour workdays and seven-week workweeks: the crews are already working extended hours and both the pipeline contractor and SoCalGas strongly oppose moving to a 24-hour workday due to safety, environmental and logistical reasons. SoCalGas will hold Sunday work as a last resort option but oppose

⁸ The MLVs will provide a safe and reliable means of performing future work on Line 235-2.

⁹ The number of equipment and personnel deployed will depend on the site and site conditions.

this as a regular practice since it imposes on the crews' ability to rest, spend time with family, and take part in religious practices.

SoCalGas will continue to look for opportunities to expedite this process to safely compress the schedule.

Once SoCalGas completes the initial remediation plan, SoCalGas expects to return Phase 1 of Line 235-2 to service at a reduced operating pressure until all salient root cause analysis recommendations can be fully implemented. At that time SoCalGas will evaluate the operating pressure and determine the requirements to raise the pressure or potentially decided on lowering it further. Once Line 235-2 is returned to service and an ILI is completed, Line 4000 will be taken out of service to perform validation digs.

Going forward, SoCalGas will provide more regular updates on the progress of Line 235-2. SoCalGas plans post on Envoy information and tables similar to the following:

Line 235-2 Work Update (1-21-2019)					
Reason for Work	Rupture of Line 235-2				
Capacity	530 million cubic feet per day (MMcfd) at TW-Needles/QST-Needles Sub-Zone				
Reduction					
Preliminary	Root Cause Analysis – finalized on 4/27/2018. An overall plan has been developed,				
Overall Schedule	integrating the results of the root cause analysis.				
and Schedule	Barstow BLM Permit – Submitted on 7/11/18 and received on 9/28/18.				
Notes	CDFW permit – Submitted on 7/26/2018 and received 1/8/19. Work began 1/9/19 on				
	CDFW jurisdictional replacements.				
	Best case scenario for return to service is currently mid-April 2019 at a reduced pressure.				
	Once Line 235-2 is returned to service, SoCalGas will ILI Line 235-2 again.				
Status	 Replacement 1/3 (6,800 ft total): Appx. 5,600 ft have been excavated, 5,300 ft of coating assessment is complete, 5,285 ft of abatement is complete, 5,285 ft have been cut-out, 2,700 ft of sandblasting is complete, 2,600 ft of Mag Particle Inspection (MPI) is complete, and 90 welds are complete. Replacement 2 (2,700 ft total): Appx. 2,120 ft have been excavated, 1,915 ft of coating assessment is complete, 1,675 ft of abatement is complete, 1,675 ft have been cut-out, and 20 welds are complete. Replacement 4 (2,700 ft total): Appx. 1,285 feet have been excavated, 1,200 ft of coating assessment is complete, 1,200 ft of abatement is complete, 1,200 ft of acting assessment is complete. Replacement 4 (2,700 ft total): Appx. 1,285 feet have been excavated, 1,200 ft of coating assessment is complete, 1,200 ft of abatement is complete, 1,200 ft dot abatement is complete, 1,200 ft of abatement is complete. Replacement 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating assessment 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coating 5 (2,700 ft total): Appx. 517 feet have been excavated, 240 ft of coa				
	assessment is complete, 80 ft of abatement is complete, 80 ft have been cut-out, and 13 welds are complete.				

Total Preliminary Planned Excavation Sites	Current Active # Excavation Sites	# Completed Excavation Sites	Comments
10	4-5	2	N/A
• 6 replacement sites (5 jurisdictional water impacts)		• Replacement 6	
• 2 MLV installations (no jurisdictional water		• 1 MLV	
impacts)			
• 2 CP replacements (no jurisdictional water impacts)			

b. <u>Line 4000</u>

Following the Line 235-2 rupture, SoCalGas reduced the pressure of Line 4000 (largely a 1960 vintage pipeline) because it is in the same "family" of pipelines as Line 235-2. SoCalGas lowered the pressure to increase the factor of safety on the pipeline until SoCalGas can conduct further analysis of Line 4000 based on what is learned from Line 235-2. In addition, this increased safety margin reduced the safety risk to employees working on Line 235-2, which is in close proximity to Line 4000 for the first 5-6 miles. Line 4000 will continue operating at reduced pressure until testing and maintenance work is complete to mitigate potential pipeline anomalies, like those found on Line 235-2. To support reliability, SoCalGas plans to begin validation digs on Line 4000 only after Line 235-2 has been returned to service and completed an ILI.

While waiting until work is complete on Line 235-2, SoCalGas has undertaken work to continue to make the Line 4000 project ready to proceed. SoCalGas has completed ILI inspections, which indicated no immediate safety conditions were found. The ILI data report has been reviewed and validation digs have been selected. SoCalGas has received and processed the bell hole citing report and received permits from Barstow Bureau of Land Management (BLM) and CDFW. Upon completion of the on-going evaluation of the Line 235-2 ILI data by outside experts, SoCalGas will apply engineering process improvements and lessons learned to existing and future Line 4000 analyses.

Line 4000 Work Update (1-21-2019)					
Reason for Work	In-line Inspection and resulting mitigation/investigation of anomalies				
Capacity Reduction	Results in a capacity of 270 MMcfd at Needles.				
Preliminary Overall Schedule and Schedule Notes	 Final report for the axial MFL tool was accepted on 6/7/2018. No immediate safety conditions were found. Report has been reviewed and the validation digs have been selected. Circumferential alignment report was received 6/11/18 and has been reviewed. Findings have been incorporated into the validation dig plan. Bell Hole siting reports received on 7/12/18. Barstow BLM & CDFW permits submitted on 7/17/18. SoCalGas has received the permit from Barstow BLM & CDFW. SoCal signed notice to proceed submitted to BLM 10/23/2018. Final copy of permit received from BLM 11/5/2018. 				
	• 6 validation digs selected for a total of 280 feet.				
Status	Validations digs to start after the Inline Inspections of Line 235-2 have been completed. Best case scenario for validation digs is to begin in May of 2019.				
Total # Planned	Current Active #	# Completed	Comments/Updates		
Validation Digs	Validation Digs	Validation Digs	-		
6	0	0	N/A		

Going forward, SoCalGas will provide more regular updates on the progress of Line 4000. SoCalGas plans to post on Envoy information and tables similar to the following:

c. <u>Line 3000</u>

Line 3000 (largely a 1957 vintage pipeline) returned to service at reduced operating pressure on September 17, 2018, allowing receipts from the Topock area.

The full scope of the Line 3000 project to date included more than 10 miles of non-consecutive pipeline replacements, coating remediation, and cathodic protection insulator installations at more than 246 job sites that span approximately 125 miles, traversing challenging terrain and overcoming significant environmental challenges.

Although this additional receipt point does improve system flexibility and resiliency, the capacity of the Needles/Topock zone continues to be 270 MMcfd due to losses on Lines 235-2 and 4000. Line 3000 is currently operating at a 140 MMcfd capacity reduction due to a reduction in operating pressure which is necessary to allow for an appropriate margin of safety until the Line 3000 can be re-evaluated with both an additional ILI assessment, and implementation of applicable lessons learned from Line 235-2. Additional information will be posted once a plan is developed and potential timing established.

4. <u>Answers to Specific Questions</u>

SoCalGas provides the following brief responses and explanations to specific questions posed by the Joint Agencies during the Workshop:

a. <u>Why are there Regular Changes to Southern System Zonal Capacity?</u>

Regular changes to Southern System zonal capacity occur because the zonal capacity is dependent on changing customer demand within the Southern System and the limited ability to flow gas out of the southern system and into the Los Angeles Basin. Southern System supply and demand must balance daily because there is no storage on the Southern System from which gas can be withdrawn to address shortages or gas can be injected to address excess deliveries. As such, when customer demand is inadequate, the capacity of the zone available for scheduling must be reduced.

b. <u>Why were Pipelines Not Fully Utilized During Cold Weather in December of 2018 and January of 2019?</u>

SoCalGas' System Operator is not responsible for bringing gas into the SoCalGas system except when needed to maintain Southern System reliability.¹⁰ However, it is common for pipelines to not be fully utilized even in times of high demand. This regular lack of full utilization is why SoCalGas' storage system, which includes Aliso Canyon, has been so important to the reliability of the natural gas system.

It is the responsibility of customers and their suppliers to deliver their daily burn requirements to the SoCalGas system. As described above, SoCalGas uses its OFOs as a tool to incentivize shippers and customers to schedule their volumes in accordance with system conditions. The Lack of utilization of the SoCalGas system is also a function of shippers' collective inability to synchronize their nominations on SoCalGas backbone system to their upstream nominations. This can occur for numerous reasons, including: upstream supply constraints resulting from well freeze-offs in the production basins or from exceedingly high weather-related gas demand outside SoCalGas' service territory, customer errors in upstream supply nominations, or customer over-nomination of system supply.

c. <u>How Accurate was Gas Acquisition's Forecast of Gas Commodity Costs?</u>

The CPUC-approved gas commodity forecast and cost recovery process for Gas Acquisition is different from the electric utilities' Energy Resource Recovery Account (ERRA). CPUC Decision 96-08-037

¹⁰ SoCalGas' Gas Acquisition department does procure natural gas for core customer requirements in the same manner as nonaffiliated customer suppliers. But their role to procure gas for system reliability purposes was severely limited by the implementation of the SoCalGas and SDG&E Omnibus Order issued in 2007.

authorized SoCalGas to change to monthly core gas pricing to better align gas commodity costs with the competitive wholesale market and provide a more timely and accurate price signal for SoCalGas' core customers. In contrast, ERRA commodity costs are forecasted for a full year and placed into electric rates potentially causing volatility in ERRA under or over-collection balances.

Gas Acquisition balances gas commodity costs for residential, commercial, and industrial core customers against revenues received from core customers in SoCalGas' Purchased Gas Account (PGA). Although this is not a direct comparison to ERRA under-collections, on average for 2018 SoCalGas included a monthly under-collection amount approximating \$2.0 million in rates to comply with the PGA imbalance band requirements in Decision 98-07-068. For comparison, SoCalGas' average commodity gas rate charged to core customers for 2018 approximated 35 cents per therm versus 36 cents per therm for 2017.

5. Conclusion

SoCalGas appreciates the opportunity to participate in the Workshop, and the continuing efforts of the Joint Agencies to minimize price volatility and the possibility of natural gas service interruptions. SoCalGas will continue to work diligently to provide safe, reliable, and affordable natural gas service to our 21 million customers across our service territory and is ready to support the State's efforts to ensure a reliable supply of energy to fuel California's residents, businesses, and economy.

Sincerely,

/s/ Tim Carmichael

Tim Carmichael Agency Relations Manager Southern California Gas Company