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**SoCalGas Comments: Joint Agency Workshop on Southern California Energy Reliability**

*Additional submitted attachment is included below.*



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**Subject:       Comments on the 2019 Joint Agency Workshop on Energy Reliability in  
Southern California, Docket # 19-IEPR-09**

Southern California Gas Company (SoCalGas) thanks the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) (together, Joint Agencies) for conducting the Joint Agency Workshop on Energy Reliability in Southern California (Workshop) on May 23, 2019 as part of the 2019 Integrated Energy Policy Report (IEPR) proceeding. Below, SoCalGas offers comments, responses, updates, and clarifying explanations regarding:

1. Status of the SoCalGas System;
2. SoCalGas' Transmission Integrity Management Program;
3. Agency Technical Assessment; and
4. Agency Technical Assessment - New Proposed Mitigation Measures.

**1.       Status of the SoCalGas System**

Southern California continues to experience reliability and affordability challenges because of gas supply and demand mismatches. SoCalGas manages these challenges by utilizing its system capacity and supply, which rely on two primary components: (1) transmission pipelines, which bring gas into the system and transport it throughout the system; and (2) underground gas storage connected to transmission pipelines near system loads. While one component of the system's limited supply is the in-state 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) which restricts the use of the Aliso Canyon storage facility (Aliso Canyon).

**a.       Pipeline Outages and Reductions**

SoCalGas continues to safely and expeditiously work towards restoring the capacity of the North Desert Pipelines (Line 235-2, Line 3000, and Line 4000). Once Line 235-2 is safely brought back into service, SoCalGas plans to take Line 4000 out of service to perform direct examination of the pipeline to validate the results of the recent inline inspection (ILI). SoCalGas has already

taken steps to prepare for the Line 4000 work and has procured the necessary permits, manpower, and materials. As indicated during the Workshop, SoCalGas anticipates having both lines back in service before commencement of the winter season.

SoCalGas has been dedicating significant resources to complete the pipeline inspections and repairs. SoCalGas deployed crews that exceeded 200 people, working multiple job sites, 6-to-7 days per week, 12 hours per day. SoCalGas has also made sufficient materials and equipment available to promote expeditious and effective completion of the projects. The timing and pace of SoCalGas' pipeline repairs, however, were criticized in Mr. Rod Walker's Workshop presentation (Walker Presentation), which stated that the "national average is weeks/months not years for similar repair issues."<sup>1</sup> Although SoCalGas cannot corroborate Mr. Walker's statistics, SoCalGas responds expeditiously to safety concerns and the timeframe for repair is dependent on the extent of the work. More regular repairs may be completed in days or weeks, while other, more complex work may take longer. Last year, for example, a safety related condition (SRC) was identified on Line 2001 which impacted its capacity; the pressure was promptly reduced, the SRC was repaired, and the pipeline was returned to service within 16 days of discovery.

Mr. Walker incorrectly assumes all pipeline projects are similar and should take the same amount of time to repair, which evidences a lack of understanding of the scope and complexity of the Line 235-2 project. The work on Line 235-2 has been challenging due to the remote nature of the multiple worksites and the unique working conditions (e.g., narrow workspaces, special environmental constraints, etc.). Following the rupture of Line 235-2, SoCalGas developed an overall remediation plan for the 46 miles of Line 235-2 that have similar anomaly characteristics<sup>2</sup> to that of the failure site. The impacted pipeline segment (3 to 4 pipe sections) was repaired within a few weeks with limited permit constraints. However, SoCalGas' overall pipeline remediation plan for Line 235-2 required extensive analysis and replacement of over 400 pipeline joints accompanied by a pressure reduction to enhance safety. The remediation plan required the permitting of six job sites to replace approximately 3.4 miles of pipe. The project sites had restrictive permitting requirements which contributed significantly to the extended timeline to return the pipeline to service.<sup>3</sup> All the construction has taken place under close oversight with the Safety and Enforcement Division of the CPUC. During the Workshop, Commissioner Randolph mentioned her staff had made recent site visits to these work locations, acknowledged how challenging the conditions are, and expressed confidence that SoCalGas is

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<sup>1</sup> Reliability of the Natural Gas System in Southern California, Presentation by Rod Walker, Walker & Associates. Available at:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=228352&DocumentContentId=59538>

<sup>2</sup> Deeper, axially-aligned, nested corrosion, and tightly adherent magnetite (a highly magnetic, naturally-occurring mineral).

<sup>3</sup> California Department of Fish Wildlife, Streambed Alteration Agreement submitted July 26, 2018 and received January 8, 2019.

allocating an appropriate amount of resources.

SoCalGas has leveraged the engineering analysis performed on these pipelines to enhance the safety of our system through our Transmission Integrity Management Plan (TIMP).<sup>4</sup> Specifically, SoCalGas continues to evaluate the data from the ILI of Line 235-2, and applies the same rigor and lessons-learned to our other North Desert Pipelines, recognizing that these pipelines generally share the same vintage and traverse the same challenging terrain and soil/rock conditions. SoCalGas has been engaged with multiple consultants and the CPUC's Safety and Enforcement Division to assess these conditions, the integrity of the pipelines, and develop plans for the future operation and maintenance of these pipelines.

In the near-term, SoCalGas has used these data and analyses to develop remediation plans and safety enhancements (e.g., SoCalGas has implemented inspection cycles at shorter inspection intervals). In the longer-term, SoCalGas is using this information to consider future pipeline replacement proposals for the North Desert Pipelines that will enhance safety and system reliability. Specifically, SoCalGas plans to perform and complete the immediate repairs and replacements to address reliability needs, and then SoCalGas plans to integrate the various data on the North Desert Pipelines to develop a longer-term replacement and operations plan.

Throughout this process, SoCalGas has taken steps to improve transparency regarding our system and system maintenance and enhance dialogue with our regulators and customers. As noted by the CPUC, SoCalGas and CPUC staff have weekly—and sometimes daily—oversight calls and meetings to discuss Lines 235-2, 4000, and 3000.<sup>5</sup> CPUC staff have also been conducting inspections to verify that work is progressing as expected.<sup>6</sup> Additionally, in recognition of requests by market participants for additional information, SoCalGas has implemented enhanced and more regular updates on the status of the work being performed on these lines. So far this year, SoCalGas has made 11 pipeline maintenance informational postings regarding the North Desert Pipelines.

During the Workshop, there were also questions about how the State could incentivize expeditious completion of the pipeline work. SoCalGas' core mission is to provide safe and reliable gas service, and SoCalGas is fully incentivized (and required) to safely and expeditiously complete the work on the North Desert Pipelines and to safely and reliably maintain the

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<sup>4</sup> During the Workshop, SoCalGas was asked for the spending details for its Pipeline Safety Enhancement Plan (PSEP). SoCalGas prepares and submits monthly reports on its PSEP progress. The most recent report is available at:

<https://www.socalgas.com/regulatory/documents/r-11-02-019/2019-april-psep-update.pdf>. Additionally, for close-out April 2019, SoCalGas's other major transmission program, TIMP, had incurred approximately \$45 million in capital and \$21 million in operations and maintenance expenses.

<sup>5</sup> See CPUC- CEC Interagency Reliability Workshop Presentation of Matthewson Epuna. Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=228374&DocumentContentId=59563>

<sup>6</sup> *Id.*

SoCalGas system. SoCalGas' priority is safety and SoCalGas is working to complete this work expeditiously, consistent with our safety priority. In overseeing SoCalGas' efforts in this regard, the CPUC has been active and involved, convening meetings, conducting site visits, and issuing data requests. The CPUC has been, and continues to be, involved in these projects and continues to support and oversee our efforts. Therefore, additional incentives are not necessary.

Finally, in response to Commissioner Guzman-Aceves' question at the Workshop regarding the cost of the pipelines. The North Desert Pipelines were installed primarily in the 1950s and 1960s. As a result, the pipelines are largely depreciated. The costs associated with more recent replacements and repairs were reasonably incurred, necessary to safely and reliably maintain the system, and remain in rates.

b. Aliso Canyon

SoCalGas is also operating its system subject to the ongoing restrictions on the use of Aliso Canyon. The SoCalGas system is designed around the use of underground gas storage to provide safe, reliable, and affordable service to customers. Storage enables the system to quickly respond to variable hourly and daily demand and supply, to serve as on-system supply sources to maintain service during both peak and prolonged high demand conditions, and to maintain and operate a system with contingencies to guard against maintenance and operational outages.

During the Workshop, the Walker Presentation stated that this system design "masked" past infrastructure issues.<sup>7</sup> This indicates an incorrect and improper understanding of how SoCalGas uses its assets to operate the system reliably. SoCalGas' system was **designed** to use all storage assets to provide for a reliable and resilient pipeline system. In past years, injections into and withdrawals from storage—primarily Aliso Canyon—were sufficient to maintain system reliability when supply and demand were out of balance (e.g., during pipeline outages or low supply deliveries from interstate pipelines). Since then, without the ability to fully use our storage assets, the more recent pipeline outages have had a more noticeable impact on system operations.

Additionally, the SoCalGas system is at the far southwest corner of the United States' interstate pipeline system. This location, coupled with the fact that the majority of gas consumed in California is supplied from outside the State, results in a system that is particularly at risk from

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<sup>7</sup> The Walker Presentation also implied that the SoCalGas system lacked "redundancy" for critical infrastructure "for continuity of operations during planned or unplanned maintenance." (*See Reliability of the Natural Gas System in Southern California*, Presentation by Rod Walker, Walker & Associates). This is not correct. The CPUC has previously rejected pipeline project proposals on the basis that it viewed the proposed pipelines as redundant. Moreover, SoCalGas works to maintain a sufficiently reliable system that is both flexible and resilient. SoCalGas operates multiple North Desert Pipelines to provide resiliency, and SoCalGas operates underground storage assets (as addressed in more detail herein) as our primary means of providing system resiliency.

upstream supply interruptions and reliant on local storage of natural gas to protect against upstream supply interruptions or local demand spikes. Accordingly, authorizing additional use of Aliso Canyon would significantly increase the capabilities of the SoCalGas system, support energy reliability, and mitigate price volatility.

## **2. SoCalGas' Transmission Integrity Management Program**

During the Workshop, the Walker Presentation also addressed integrity management and SoCalGas' integrity management activities, including the incorrect statement that “[i]t appears that inline inspection tools were not used until 2010.”<sup>8</sup> This is inaccurate and warrants clarification and correction. In 2002 the Pipeline Safety Improvement Act was signed into law and required pipeline operators to develop a Transmission Integrity Management Program (TIMP) and complete a baseline assessment of high consequence areas by 2012. As part of TIMP, SoCalGas completed ILIs as early as 2003, and currently 66% of SoCalGas' transmission pipelines are piggable. For reference, SoCalGas performed ILIs of Line 235-2 in 2005, 2009 and 2014.

There were several questions about the effectiveness of ILI tools and the accuracy of information identified from smart pigging the North Desert Pipelines, including a statement in the Walker Presentation that an “operator should have known the condition of the pipelines.”<sup>9</sup> Like most technologies, ILI tools have limitations and tolerances that should be accounted for, and operators implement steps to do just that. The American Petroleum Institute, for example, provides guidance to operators on qualifying an ILI and its performance.

The pipeline industry has devoted much time and effort towards the development of smart pigging technology, and in recent years has been focused on addressing the detection, sizing, and performance quality on complex corrosion. In most cases, the corrosion found along pipelines can be characterized and sized by ILI with a higher degree of confidence. However, complex corrosion present on the North Desert Pipelines has proven more challenging. As a result, SoCalGas undertook extensive work that considered tool limitations and tolerances in an effort to reduce the number of anomalies with an elevated rupture risk and potential leaks. As a secondary safety measure, prior to returning a pipeline to service, SoCalGas performs a series of pressure increases and leak surveys to validate pipeline integrity. Through this process, the pressure on the pipeline is systematically increased to verify pipeline integrity. If a leak is identified during this process, the pipeline is depressurized, and the leak is addressed. This process is repeated until the target pressure is achieved and no leaks are identified. This does not necessarily mean that leaks already exist, but rather that non-hazardous leaks occur as a part of the pressure increases and are identified as part of this process.

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<sup>8</sup> Reliability of the Natural Gas System in Southern California, Presentation by Rod Walker, Walker & Associates.

<sup>9</sup> *Id.*

### **3. Agency Technical Assessment**

During the Workshop, staff from the CEC, CPUC, California Independent System Operator (CAISO), and Los Angeles Department of Water and Power (LADWP) presented their “Aliso Canyon Risk Assessment Technical Report Summer 2019” (Agency Technical Assessment). SoCalGas has reviewed the Agency Technical Assessment for the upcoming summer season and finds that the data presented in the Agency Technical Assessment does not appear to support its conclusion that “[t]he reduction in capacity caused by the current pipeline outages creates a threat to electric reliability in summer 2019.”<sup>10</sup> Table 10 of the Agency Technical Assessment lists a forecast demand of 3,368 million cubic feet per day (MMcfd) (including all electric generation [EG] contingencies). The peak demand is expected to occur after July,<sup>11</sup> and the supported demand listed in Table 9 is greater than this level in all supply assumptions used by the Agency Technical Assessment. In fact, the Agency Technical Assessment appears to refute its own conclusion:

In summary, Southern California electric reliability can be maintained on a 1-in-10 year electric peak day, assuming 100 percent transmission import utilization and the availability of non-gas-fired generation, such as pumped storage hydro or battery storage. This conclusion remains true even when electricity transmission import utilization drops to 85 percent ...<sup>12</sup>

SoCalGas’ Technical Assessment agrees with this conclusion, finding that summer peak demand was not at risk except under a “worst case” pipeline supply assumption, without the use of Aliso Canyon supply. The Agency Technical Assessment’s overall conclusions should be corrected or explained to match the results of their analysis. Further explanation would be beneficial, especially because the Agency Technical Assessment’s data and analysis appears overly optimistic and potentially incomplete. For example, the Agency Technical Assessment does not appear to take into account how the intentional deenergization of transmission lines by electric utilities in high fire threat areas to protect communities and reduce wildfire risk impacts its assessment. This appears especially important given the assumption of large amounts of electric imports and 100% electric transmission utilization to power Southern California.

The Agency Technical Assessment evaluates three scenarios regarding pipeline supply – base, pessimistic, and optimistic. However, for the period when peak electric generation demand would be expected (i.e., after July), the pipeline supply assumption is essentially the same across all three scenarios. As shown in Table 8 of the Agency Technical Assessment, the “pessimistic” supply scenario differs from the base and optimistic scenarios by only 80 MMcfd. This is a negligible difference given the impact of the upcoming work on the SoCalGas system (which has

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<sup>10</sup> Agency Technical Assessment at page 3.

<sup>11</sup> Agency Technical Assessment at page 4, Footnote 3.

<sup>12</sup> Agency Technical Assessment at page 4.



been communicated to the CPUC and CEC and was presented at the Workshop). This work includes validation digs on Line 4000, ILI results on Line 235-2, the on-going work on Line 2001, and the ILI on Line 225. Table 9, however, uses the above (similar) three supply assumptions, adds an assumption for storage supplies, and calculates supported demand.

Whereas the “pessimistic” supply assumption used in Table 8 and Table 9 is too large, the storage supplies of 680 MMcfd used in Table 9 is too small. Footnote 2 to Table 9 states that “[t]he storage result of 680 MMcfd is derived from SoCalGas’ Summer 2019 Technical Assessment and is the mid-point between their best and worst cases and excludes Aliso Canyon.” Yet SoCalGas’ Technical Assessment states: “[w]ithout Aliso Canyon, withdrawal capacity is reduced to 1.20 BCFD (best case) and 0.62 BCFD (worst case).”<sup>13</sup> The mid-point between 1.20 BCFD (billion cubic feet per day) and 0.62 BCFD is 0.91 BCFD, which is 230 MMcfd greater than the 680 MMcfd assumed in Table 9. Thus, the use of 680 MMcfd results in a consequential underestimation of the capabilities of the storage facilities.

SoCalGas also has concerns regarding the gas balance analysis presented in the Agency Technical Assessment. The Agency Technical Assessment notes that its assessment “differed from SoCalGas’ analysis in that none of the staff balances automatically discount supply to 85 to 95% of pipeline capacity,”<sup>14</sup> reasoning that “the discounting confuses the issue of behavior with true available capacity and creates the appearance of a greater need for gas from Aliso Canyon.”<sup>15</sup> SoCalGas disagrees.

Customers on the SoCalGas system do not typically fully utilize the receipt capacity on the SoCalGas system. This is even acknowledged in the Agency Technical Assessment: “However, analyses of past pipeline utilization shows that maximum pipeline utilization is rare. For example, winter 2018-19 experienced an average capacity utilization of 94 percent during peak demand hours.”<sup>16</sup> The Agency Technical Assessment, however, inappropriately uses this available capacity utilization assumption, seemingly to show little-to-no need for gas from Aliso Canyon. Incorporating these assumptions into the analysis confuses the process and results, and does not help the State, SoCalGas, or our customers plan for the summer and winter seasons. This utilization assumption, coupled with the overly optimistic “pessimistic” supply scenario, results in no indication that storage levels may not be sufficiently filled for winter season reliability. Despite not indicating this risk in their tables or figures, the Agency Technical Assessment concludes that, “[w]ith the high number of pipeline outages, it may be difficult for SoCalGas to fill storage to a level sufficient to ensure energy reliability throughout the coming winter.”<sup>17</sup> SoCalGas agrees with this identified difficulty.

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<sup>13</sup> Southern California Gas Company Summer 2019 Technical Assessment at page 4.

<sup>14</sup> Agency Technical Assessment at page 32.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

Two footnotes presented in the Agency Technical Assessment also warrant additional comment:

- Footnote 3 states, “The term *1-in-10 year* represents the warmest condition expected to occur once in 10 years and is used for planning capacity needed to serve noncore customers. The 1-in-10 year peak day is most likely to occur in July through September.” SoCalGas reiterates that although we evaluate the peak summer demand scenario, especially since restrictions have been imposed on the use of Aliso Canyon, the CPUC has not mandated a summer design standard for SoCalGas or San Diego Gas & Electric (SDG&E). The SoCalGas and SDG&E systems remain *winter peaking systems*, meaning that the highest demand day is still forecast to occur during the winter heating season, and therefore a summer design standard would be unnecessary.<sup>18</sup> SoCalGas also takes issue with the definition presented for the 1-in-10 year summer demand forecast. Since the Agency Technical Assessment used the summer demand forecast presented in both the California Gas Report and in SoCalGas’ Technical Assessment, it is incorrect to state that it “represents the warmest condition expected to occur once in 10 years.” That forecast represents a 1-in-2 year temperature condition coupled with a 1-in-10 chance of a dry hydro electric season.
- Footnote 25 misstates SoCalGas Tariff Rule No. 23. The footnote states that “Rule 23 requires EG to curtail up to 40 percent of their load in the summer months and up to 60 percent of their load during the winter months.” While this is indeed the first level of EG curtailment specified in SoCalGas Rule No. 23 (and SDG&E Rule No. 14), EG demand is 100% curtailable per these Rule(s).

#### **4. Agency Technical Assessment - New Proposed Mitigation Measures**

The Agency Technical Assessment includes several proposed mitigation measures. SoCalGas has addressed many of these proposed mitigation measures in past IEPR comments<sup>19</sup> and, therefore, will focus its comments on the new potential mitigations identified in the Agency

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<sup>18</sup> The issue of reliability standards was also raised in a presentation that stated: “Reliability not mandated, regulated nor tracked in the natural gas industry unlike electric industry.” (Reliability of the Natural Gas System in Southern California, Presentation by Rod Walker, Walker & Associates). In California, the CPUC mandates, regulates, and tracks gas system reliability. SoCalGas plans its transmission (backbone and local) and distribution systems to meet two CPUC-mandated winter demand-based conditions and to maintain sufficient slack receipt capacity. Service to all customers (core and noncore) is to be maintained under a 1-in-10 year cold day temperature condition, and service to core customers (with all noncore customers curtailed) is to be maintained under a 1-in-35 year peak cold day temperature condition.

<sup>19</sup> See, e.g., SoCalGas Comments on the 2018 IEPR Joint Agency Workshop on Energy Reliability in Southern California. Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=223536&DocumentContentId=53610>

Technical Assessment.<sup>20</sup>

- a. Continue to implement 6 days a week/12 hours a day schedule to expedite returning pipelines to service

SoCalGas continually assesses the resource needs of jobsites on a case-by-case basis to maintain a safe and efficient work environment. We expect that in some, but not all, situations it will make sense to continue with these more aggressive work schedules to expedite completion of the work. SoCalGas will continue to communicate regularly with our regulators regarding crew schedules and the resources we plan to deploy at these jobsites.

- b. Revise OFO penalty structure

On May 30, 2019 the CPUC approved changes to the Operational Flow Order (OFO) non-compliance charge structure.<sup>21</sup> SoCalGas presented more detail in testimony and comments in that proceeding, but will again stress the importance that non-compliance charges be sufficient to properly incentivize behavior. There must be proper research and understanding of the consequences of changes to the OFO non-compliance charges. SoCalGas continues to be concerned that the CPUC's decision to reject a settlement involving multiple disparate parties, and instead favor Southern California Edison's proposal could jeopardize the reliability of the system, create additional price volatility, and ultimately increase the need to use system storage, including Aliso Canyon.

- c. Revise the Withdrawal Protocol

The current Withdrawal Protocol renders Aliso Canyon “an asset of last resort” and effectively withholds Aliso Canyon's withdrawal capacity from the market. Because of the Withdrawal Protocol, Aliso Canyon's withdrawal capacity cannot be relied upon to balance supply and demand for consumers, alleviate market stress in periods of high system demand, or allow customers to withdraw their stored gas to avoid market purchases of higher-priced gas.

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<sup>20</sup>At the Workshop there were again mention of Liquefied Natural Gas (LNG) purchases for delivery through Otay Mesa. SoCalGas purchases of re-gasified LNG delivered at Otay Mesa may detrimentally impact other shippers and customers trying to schedule their gas volumes into SoCalGas' service territory, particularly on low southern system demand days. On such days, gas delivered at Otay Mesa will use southern zone receipt capacity which may result in cuts to zone receipts from the El Paso Ehrenberg and North Baja Blythe receipt points. LNG receipts at Otay Mesa may also displace other receipts across the system. The net effect in these cases would be that no additional supplies are received by SoCalGas because one or more receipt sources are displaced by receipts at Otay Mesa. As such, this proposed mitigation measure potentially impacts shippers' and customers' abilities to schedule gas volumes into SoCalGas with a limited benefit to system reliability and at higher costs to customers.

<sup>21</sup> See CPUC Decision 19-05-030.

SoCalGas continues to recommend that the CPUC eliminate its Withdrawal Protocol. In the alternative, the CPUC should at a minimum modify the Withdrawal Protocol to authorize use of Aliso Canyon's capacity (1) for all system balancing requirements and account for the balancing capacities used in the OFO calculation, and (2) to preserve delivery requirements necessary for core reliability provided by SoCalGas' non-Aliso Canyon storage fields. SoCalGas has included proposed revisions to the Withdrawal Protocol in Attachment A. Under these revisions, Aliso Canyon will generally be used in two circumstances. First, Aliso Canyon will be used to balance customer supply and demand. Second, if SoCalGas' storage inventories are not meeting targets for core reliability, Aliso Canyon will be used for balancing and to preserve and build non-Aliso Canyon storage inventory. Under the second scenario, Aliso Canyon will be used to both balance supply and demand and to meet scheduled withdrawals, instead of withdrawals occurring at the other fields.

Currently, up to 525 MMcfd of withdrawal capacity from the non-Aliso Canyon fields is reserved for system balancing needs. Adopting this modification would transition that balancing function to Aliso Canyon and away from the non-Aliso Canyon fields, making the non-Aliso Canyon fields more fully available to storage customers. This modification would increase the balancing capabilities of the system, help manage and preserve inventories at the non-Aliso Canyon fields, increase customers' ability to schedule gas from the non-Aliso Canyon fields, and reduce the need for OFOs. As noted in the Agency Technical Assessment, the non-Aliso Canyon fields' inventory levels are presently much lower than at this time last year.<sup>22</sup> The non-Aliso Canyon fields have a slower injection rate and, as evidenced this past winter, can experience precipitous drops in withdrawal capabilities as inventory decreases. By authorizing Aliso Canyon to serve the system balancing function, the CPUC will enable Aliso Canyon, with its much greater injection rate and ability to maintain withdrawal capability due to larger inventory, to help balance the system and preserve and build the capabilities of the non-Aliso Canyon fields. Furthermore, pursuant to the second part of the proposed modifications, if storage levels are not meeting specified targets, Aliso Canyon will be used to balance the system and to meet inventory levels needed to meet specified withdrawals at the non-Aliso Canyon fields. In so doing, Aliso Canyon will help preserve and build inventory at the non-Aliso Canyon fields to meet inventory targets for core reliability.

In addition to supporting system reliability, this change is expected to mitigate price volatility during times of system stress. As was noted in the CPUC's draft report on SoCalGas' 2018-19 winter operations, if SoCalGas' Gas Acquisition Department (Gas Acquisition) had been able to schedule gas from Aliso Canyon, it could have avoided incurred OFO penalties this winter.<sup>23</sup> The proposed revision would increase system balancing capabilities (lowering the need for

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<sup>22</sup> Agency Technical Assessment at page 6.

<sup>23</sup> CPUC Winter 2018-19 SoCalGas Conditions and Operations Report (Draft) at page 5.

OFOs) and make additional non-Aliso Canyon capacity available to customers, further allowing customers with rights to inject and withdraw gas to balance their supply and demand.

SoCalGas also notes that another means to support system reliability is to increase the authorized Aliso Canyon inventory levels pursuant to California Public Utilities Code Section 715. The Agency Technical Assessment acknowledges the need to fill storage for winter<sup>24</sup> and that storage shut-ins have become longer and more frequent.<sup>25</sup> The Agency Technical Assessment also notes that “[t]he continuous stretch of cold weather this past winter provided a sharp illustration of how fast storage inventories can dwindle and how quick storage withdrawal capacity can decline.”<sup>26</sup> Based on these considerations, the Agency Technical Assessment recommends that “the CPUC [] consider whether the current Aliso Canyon capacity is adequate to ensure summer and winter reliability.”<sup>27</sup> SoCalGas agrees that the CPUC should re-evaluate the impact of the existing 34 billion cubic feet (Bcf) limitation on core reliability. As has been previously acknowledged by the CPUC, the Division of Oil, Gas, and Geothermal Resource’s has authorized Aliso Canyon to operate at reservoir pressures that translate into a working gas inventory of approximately 68.6 Bcf.<sup>28</sup> If the CPUC agrees to allow Aliso Canyon to be used for balancing as proposed, the existing 34 Bcf limitation on Aliso Canyon inventory should be modified.

d. Revise the OFO formula

The OFO formulas (high and low) are essential tools for system reliability. Revising the existing formulas, given the restrictions on the use of Aliso Canyon and the flowing pipeline receipt capacity, as well as the recent revisions to the non-compliance charges, could place energy reliability at risk. A simpler solution is to eliminate or modify the Withdrawal Protocol as indicated above. The Withdrawal Protocol modifications outlined above will increase system balancing capabilities through the dedicated use of Aliso Canyon and make additional non-Aliso Canyon capacity available for customers to schedule. In so doing, the CPUC will increase the assets available for balancing, increase capacity available to customers with storage rights, and decrease the need to call OFOs.

e. Help customers use available pipeline capacity or injection capacity

SoCalGas does not control how much gas customers will bring onto its system but it can influence behavior with tools like the OFO. Because SoCalGas has limited tools to incentivize

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<sup>24</sup> Agency Technical Assessment at page 3.

<sup>25</sup> *Id.*

<sup>26</sup> Agency Technical Assessment at page 40.

<sup>27</sup> *Id.*

<sup>28</sup> *See*

[https://www.cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/News\\_Room/715Report\\_Summer2018\\_Final.pdf](https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/715Report_Summer2018_Final.pdf).

customers to bring more gas onto the system, the Low OFO is an important tool to incentivize such customer behavior. Besides the OFO, SoCalGas continues to take certain actions to make additional capacity available to customers. Specifically, each flow day morning, the system operator determines whether additional injection capacity allocated to the system balancing function can be made available for injection nominations in Cycle 3. If additional capacity can be made available for Cycle 3, the additional capacity will be reflected in the Net Storage Injection Capacity value on the Capacity Utilization Page on ENVOY for scheduling. Again, changes to the Withdrawal Protocol and authorized inventory at Aliso Canyon will better enable injections, by increasing system flexibility. For example, if Aliso Canyon reaches its currently authorized inventory of 34 Bcf, Aliso Canyon's significant injection capacity is unavailable, impacting customer's ability to bring gas into the system. SoCalGas continues to closely track storage inventory levels and reports those inventory levels to the CPUC. If necessary, SoCalGas may seek additional authorization to promote storage injections.

f. Conduct research into the Gas Cost Incentive Mechanism

The proposed mitigation is vague and does not recognize that the ability to bring gas into the SoCalGas system is determined based on shippers' Backbone Transmission System holdings and pipeline availability. Further, this proposal appears to address only the Gas Cost Incentive Mechanism as a factor without mentioning any of the other factors which affect pipeline utilization by customers, especially existing core needs (and requirements) for filling storage.

Gas Acquisition is required to meet summer and winter storage targets for core reliability as part of the GCIM. Gas Acquisition meets these storage targets by building inventory, which entails delivering gas into SoCalGas' system for injection into storage, and then managing withdrawal of this inventory such that it does not fall below these targets. Gas Acquisition's utilization of pipelines is influenced by several factors but is predominantly determined by its requirement to deliver enough supply to meet core customer daily demand, which is highly weather-dependent and not driven by gas markets. If any assessment of pipeline utilization is performed, it should be for all shippers based on the above considerations and factors.

g. Optimize the timing of discretionary maintenance to maximize injections while minimizing peak summer and winter season maintenance

SoCalGas already optimizes maintenance activities to achieve the least overall system capacity impacts. SoCalGas met with the CPUC's Energy Division and Safety and Enforcement Division early in 2019 to review significant projects and provide information on why projects were scheduled at certain times of the year, the contingencies considered, and the associated compliance deadlines. SoCalGas also created the Maintenance Outlook page on the SoCalGas ENVOY website to increase market transparency regarding future projects that were not already included in the ENVOY Maintenance Schedule.

**5. Conclusion**

SoCalGas appreciates the opportunity to participate in the Workshop, and the continuing efforts of the Joint Agencies to assess and promote system reliability. SoCalGas will continue to work diligently to provide safe, reliable, and affordable 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

# ATTACHMENT A



# PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



## Proposed Modified Aliso Canyon Withdrawal Protocol

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### **Introduction**

Southern California Gas Company (SoCalGas) may withdraw gas from the Aliso Canyon natural gas storage facility (Aliso Canyon) consistent with the protocol defined below. The protocol implements the following principles:

- Except as detailed in item 1.C, Aliso Canyon will be treated as the “asset of last resort” used for withdrawals after ~~all~~ other alternatives have been exhausted as defined by the protocol and consistent with items 1.A. and 1.B, below;
- Withdrawals from Aliso Canyon may be initiated to avoid and limit curtailments pursuant to Southern California Gas Company Rule No. 23 (Rule No. 23);
- The priority of service under ~~Southern California Gas Company~~ Rule No. 23 shall remain in place should curtailments be required;
- If curtailments are required, SoCalGas shall consult with the applicable Balancing Authorities (the California Independent System Operator [CAISO] and the Los Angeles Department of Water and Power [LADWP]) before and during any curtailment;
- Should curtailments to electric generation create a risk to electric load that is critical to health and safety, withdrawals may be made consistent with the protocol; and
- Withdrawals will be made in a manner that ensures safety, maintains the integrity of the wells and storage facility, and is consistent with all rules and regulations concerning the safe use of Aliso Canyon.
- As detailed in item 1.C, Aliso Canyon shall be used to provide imbalance services and to preserve deliverability requirements necessary for core reliability at SoCalGas’ other storage fields through inventory management.

### **Aliso Canyon Withdrawal Protocol**

**1. Withdrawals from Aliso Canyon.** Withdrawals from Aliso Canyon will be based on forecasted and known conditions including but not limited to weather, overall gas demand, electric generation gas demand, and the current and anticipated operating condition of the SoCalGas system. Withdrawals will be made when, ~~in coordination with the Balancing~~

~~Authorities~~, it is determined that withdrawals are necessary to maintain reliability overall, to respond to a risk to natural gas or electric system reliability, and/or to avoid or to limit curtailments to core and noncore customers. In all cases, withdrawals may only be made consistent with safe operation of the field and the system and in compliance with any mandated protocols for production from the field.

Within this context, withdrawals will be made if the circumstances described in A, ~~or B~~, or C below, occur:

- A. The following three conditions exist:
  - (1) SoCalGas has taken all appropriate actions it deems available and necessary to meet demand and to avoid curtailment of electric load and/or gas curtailments to core and noncore, non-electric generation customers. Such actions include the use of operational and emergency flow orders and coordination with Balancing Authorities to limit and/or reduce demand in effected areas; and
  - (2) To avoid curtailments of electric load, the CAISO and/or LADWP, in coordination with SoCalGas, have activated their appropriate capacity emergency plans based on the existing and forecast conditions; and
  - (3) There remains an imminent risk that curtailments of electric load will occur without additional gas supply.
- B. There is an imminent and identifiable risk of gas curtailments created by an emergency condition that would impact public health and safety or result in curtailments of electric load that could be mitigated by withdrawals from Aliso Canyon. Such risk could arise due to emergencies on the gas pipeline system or because conditions require additional gas supply otherwise unavailable. Under such circumstances, when reliability is at risk and curtailment is imminent, SoCalGas may, at its sole discretion, execute a withdrawal from Aliso Canyon.
- C. Aliso Canyon may be used to (1) address imbalances between customer demand and available supply; and/or to (2) preserve delivery requirements necessary for core reliability at SoCalGas' non-Aliso Canyon storage fields. Withdrawals under section 1.C may be made without coordination with the Balancing Authorities and not subject to reporting requirements specified in Section 4. Instead of Section 4 reporting, SoCalGas shall prepare and submit to Energy Division a report detailing Aliso Canyon's use for the winter operating season (November through March) and a report detailing its use for the injection operating season (April through October). These reports shall detail customer demand, available supply, and imbalance activity provided by Aliso Canyon.

**2. Readiness of the Aliso Canyon Field.** SoCalGas shall take all actions necessary to allow for timely withdrawals and shall maintain the Aliso Canyon field on a standby basis as warranted by forecasted conditions/ risks to system reliability. Further, if at any time the CAISO declares a Flex Alert, SoCalGas shall coordinate with the CAISO and LADWP and make any preparations necessary to allow for a timely withdrawal.

**3. Executing a Withdrawal Under Conditions Defined in 1.A.** As operator of the Aliso Canyon storage facility, SoCalGas has the obligation to make an informed decision to

withdraw gas from Aliso Canyon under the conditions defined in 1.A. above. In confirmation that those conditions have been met, SoCalGas shall contact the Balancing Authorities and confirm that they (the Balancing Authorities) have met the conditions in number 1.A. For information purposes, the California Public Utilities Commission (CPUC) shall be included in such contacts and may participate as appropriate.

Communications may be made using any method acceptable to SoCalGas, the CPUC, and the Balancing Authorities. SoCalGas, the Balancing Authorities, and the CPUC shall make all arrangements for the required communications and confirmations necessary with executing a withdrawal.

**4. Section 1.A and 1.B Noticing and Reporting.** SoCalGas shall immediately notify the CPUC Energy Division (Energy Division) of the following: issuance of a Stage 4 or 5 Operational Flow Order or an Emergency Flow Order; in the event of an emergency that threatens system reliability and may require electric curtailments; and at the initiation of withdrawals from Aliso Canyon.

Within 24 hours of the cessation of a withdrawal from Aliso Canyon, SoCalGas shall provide the Energy Division with the following:

- the total and hourly withdrawals from the field;
- the number of wells used for making withdrawals and the SoCalGas identifier for each well used;
- the pre- and post-withdrawal Aliso working gas inventory;
- the hourly pipeline receipts for the calendar day(s) on which a withdrawal was made and the day immediately preceding the withdrawal;
- the hourly withdrawals by field from non-Aliso storage facilities for the calendar day(s) on which a withdrawal was made and the day immediately preceding the withdrawal;
- information concerning any anomalies experienced during the operation of the field;
- any repairs or mitigation required as a result of the withdrawal, including the time necessary to make them before another withdrawal could be made and the impact on the field's injection and withdrawal capacity; and
- whether the withdrawal was made under conditions identified in 1. B.

Within 30 days after a withdrawal, SoCalGas shall provide the Energy Division with a full description of the events and conditions leading up to the withdrawal, all actions taken prior to the withdrawal, and any observations or recommendations concerning the execution of future withdrawals. Further, SoCalGas shall identify and describe any steps or actions not taken that could have diminished or eliminated the need for a withdrawal and make comments and/or recommendations for future consideration.

If a withdrawal from Aliso Canyon was due to an activation of the CAISO or LADWP emergency plans as described in Section 1.A., the Balancing Authorities agree to submit a description of the event that includes forecast demand, operating reserve requirements, and anticipated capacity deficiencies based on the requested gas curtailments for the impacted hours. The CAISO and/or LADWP may also:

- a) identify and describe any steps or actions not taken that could have diminished or eliminated the need for a withdrawal, and
- b) make comments and/or recommendations for future consideration.

**5. Effective Date.** This protocol shall become effective ~~November 1XX, 2017~~2019. The protocol shall remain in effect, subject to modification through the completion of the CPUC Investigation (I.)17-02-002, or such time as determined based on conditions.