

Proposed Revisions to the Aliso Canyon Withdrawal Protocol July 1, 2019

The California Public Utilities Commission (CPUC) is considering revisions to the Aliso Canyon Withdrawal Protocol (Withdrawal Protocol) to help address energy reliability challenges and price impacts in Southern California while maintaining safe operations of the Aliso Canyon Gas Storage Facility (Aliso Canyon). The current Withdrawal Protocol has been in effect since November 2, 2017, after a leak was detected at the gas storage field on October 23, 2015 and plugged several months later. The Withdrawal Protocol was initially adopted to ensure that the Southern California Gas Company (SoCalGas) was using storage at Aliso Canyon to support all natural gas customers in Southern California and not just its core customers. While the Withdrawal Protocol has been amended several times since it was first released, the Withdrawal Protocol still exists to ensure that — with a decreased amount of allowable storage inventory in Aliso Canyon after the 2015 leak — the use Aliso Canyon is optimized to meet reliability requirements in Southern California and ensure reasonable costs. The Withdrawal Protocol does not impact other regulations that dictate the amount of the gas that can be stored in the field.

The proposed changes in the Withdrawal Protocol are focused on improving short-term reliability and price stability in the Southern California region. The changes are not intended to signal a need for Aliso Canyon in the long term. The issue of the long-term role of Aliso Canyon in providing reliable gas service in Southern California and the question of whether the storage facility can be shut down entirely are issues for the Aliso Canyon Order Instituting Investigation, known as I.17-02-002. The proposed changes in the protocol will not impact the outcome of that proceeding.

The current Withdrawal Protocol dictates when SoCalGas can withdraw gas from Aliso Canyon, and it prohibits withdrawals from the storage field except “as an asset of last resort.” Ultimately, the proposed revisions to the Withdrawal Protocol aim to strike a balance between addressing energy reliability challenges and price impacts in Southern California while still operating within a framework that limits the volume of gas that can be stored in Aliso Canyon to an amount deemed safe by the Division of Oil, Gas, and Geothermal Resources (DOGGR) and at a level that does not exceed the minimum amount needed to ensure energy service reliability. Specifically, the proposed revisions would provide SoCalGas with more flexibility to consider withdrawals from Aliso Canyon on days when the storage field’s inventory is needed for gas system balancing and/or when the inventory of other non-Aliso storage fields in Southern California have substantially declined.¹

The current Withdrawal Protocol, combined with the increased scarcity of gas supply caused by both pipeline outages and the operational restrictions on Aliso Canyon, has strained the overall natural gas infrastructure in Southern California and has led to the curtailment of gas supplies to electric generators. This in turn has contributed to gas and electric price spikes on high

¹ Non-Aliso gas storage fields: La Goleta, Honor Rancho, and Playa del Rey.

demand days. One consequence of these price spikes was an \$800 million increase in the costs for Southern California Edison to procure electricity in the summer of 2018 (natural gas prices impact the price of electricity from natural gas power plants, which then impact the price of all electricity on the wholesale market) that will ultimately be passed on to electric ratepayers.

The current Withdrawal Protocol, combined with pipeline outages, has also contributed to critically low inventory levels at the non-Aliso storage fields this past winter because it requires SoCalGas to rely primarily on those fields to meet customer demand. Intuitively, more inventory in a gas storage field leads to higher withdrawal capacity and the operational ability to ensure energy service reliability. Conversely, a lack of gas inventory adversely impacts both energy service reliability and energy prices. Thus, revising the Aliso Canyon Withdrawal Protocol will help preserve inventory levels at the non-Aliso storage fields, increase their corresponding withdrawal capacity, and enable those fields to supply gas when needed at critical hours of peak customer demand.² This change will also reduce reliability problems, which can occur due to a lack of injection capacity on the gas system. Since injection capacity is largely concentrated at Aliso Canyon, once that field reaches its maximum inventory, there is little firm injection capacity left on the system.³ Without Aliso Canyon's injection capacity, it is difficult for customers to build gas storage inventory at the other three storage fields.

A revised Withdrawal Protocol would not increase the maximum allowable inventory at Aliso Canyon, which is determined under Public Utilities Code Section 715. The Withdrawal Protocol was initiated to ensure that SoCalGas uses Aliso Canyon to enhance reliability for both residential and noncore customers. It was not developed as a safety measure and is still not intended as a safety measure. There are several other measures required by statute and DOGGR regulations that ensure safe operation of Aliso Canyon.

Finally, all versions of the Withdrawal Protocol require that any gas withdrawals from Aliso Canyon must be made in a manner that ensures safety, maintains the integrity of the wells and the storage field, and is consistent with all safety rules and regulations. The proposed revisions to the Withdrawal Protocol would remain in effect until further modified or until the CPUC issues a decision in the Aliso Canyon Order Instituting Investigation, which will determine whether the use of Aliso Canyon is eliminated or minimized in the long-term.⁴

² As inventory levels drop, storage fields have lower pressures, which results in a decline in withdrawal rates (the amount of gas that can be withdrawn in MMcf per hour to meet customer demand).

³ Under current conditions, the actual injection capacity of the non-Aliso fields is 240 million cubic feet per day (MMcfd), while that of Aliso Canyon is 500 MMcfd.³ The lesser of 345 MMcfd or all the injection capacity available on the system is set aside to meet intraday changes in demand and is not available for customer injection.

⁴ See <http://www.cpuc.ca.gov/AlisoOil/> for information on the CPUC Aliso Canyon Order Instituting Investigation.



Draft Aliso Canyon Withdrawal Protocol July 1, 2019

This Withdrawal Protocol replaces the November 2, 2017, version in its entirety.

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

Aliso Canyon may be used for withdrawals only if any of the following conditions are met:

1. Preliminary low Operational Flow Order (OFO) calculations for any cycle result in a Stage 2 low OFO or higher for the applicable gas day;
2. Aliso Canyon is above 70% of its maximum allowable inventory between February 1 and March 31; in such case, SoCalGas may withdraw from Aliso Canyon until inventory declines to 70% of its maximum allowable inventory;¹ and/or
3. The Honor Rancho and/or Goleta fields decline to 105% of their month-end minimum inventory requirements (shown below) during the winter season.²

Storage Field	Month-End Minimum Inventory (in Bcf)				
	Nov.	Dec.	Jan.	Feb.	March
Aliso Canyon	5.7	5.1	4.4	3.8	2.1
Honor Rancho	13.9	13.2	12.6	7.5	5.0
La Goleta	8.0	7.9	7.7	7.6	7.5
Playa del Rey	1.9	1.9	1.5	1.1	0.7
Total	29.5	28.1	26.2	20.0	15.3

The CPUC may update the Withdrawal Protocol if it determines that a modification of the month-end minimum inventory requirements is necessary.

Withdrawals shall 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.

¹ This measure is designed to ensure that there is enough systemwide injection capacity by April 1 (the start of the injection season) to fill the non-Aliso fields to a sufficient inventory level to meet summer demand.

² This measure is designed to ensure that adequate inventory levels remain at the non-Aliso fields before the end of each winter month. SoCalGas' Aliso Canyon Risk Assessment Technical Report 2018-19 Supplement identified month-end minimum inventory requirements needed to preserve withdrawal rates for core reliability. The report can be found here:

[http://cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2018/2018%2011%2002%20SoCalGas%20\(R.%20Schwecke\)%20letter%20to%20CEC%20enclosing%20WINTER%202018-19%20TECHNICAL%20ASSESSMENT.PDF](http://cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2018/2018%2011%2002%20SoCalGas%20(R.%20Schwecke)%20letter%20to%20CEC%20enclosing%20WINTER%202018-19%20TECHNICAL%20ASSESSMENT.PDF)

If Aliso Canyon is used for withdrawals based on the conditions stipulated above, Aliso Canyon's inventory and withdrawal capacity shall be made available for balancing and for scheduling to entities who both serve core customers and own storage rights.

SoCalGas and the California Independent System Operator (CAISO) and the Los Angeles Department of Water and Power (LADWP) shall continue to coordinate to maintain gas and electric system reliability.

Curtailments

If curtailments are required despite Aliso Canyon withdrawals, SoCalGas shall consult with the CAISO and the LADWP before and during any curtailment. In the event of a curtailment, the priority of service under SoCalGas Rule No. 23 shall remain in place.³

Noticing

Prior to withdrawing gas from Aliso Canyon, SoCalGas shall post a Critical Notice to Envoy informing customers and the public that a withdrawal will take place and providing the reason for initiating the withdrawal as defined above. The Notice shall also state the dates and times when Aliso Canyon's inventory and withdrawal capacity are available for balancing and for scheduling to customers who own storage rights.

Reporting

Within 30 days after the cessation of a withdrawal period, SoCalGas shall provide the CPUC's Energy Division both a confidential and public report with a full description of the events and conditions leading up to the Aliso Canyon withdrawal(s). The report shall include:

1. the total and hourly withdrawals from the field;
2. the pre- and post-withdrawal Aliso Canyon working gas inventory;
3. the inventory of the non-Aliso fields before and after the Aliso Canyon withdrawal(s);
4. the geographical and/or the time price spread used in determining the OFO stages for the day(s) of the withdrawal(s) and the two days immediately preceding and following;
5. weather conditions in the SoCalGas service territory for the day(s) of the withdrawal(s) and the day immediately preceding the initiation of withdrawal(s);
6. the hourly pipeline receipts for the calendar day(s) on which a withdrawal was made and the day immediately preceding the initiation of withdrawal(s);
7. 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 initiation of withdrawal(s);
8. demand response activations and Dial It Down Alerts; and
9. information concerning any anomalies experienced during the operation of the field.

Effective Date

This protocol is proposed to become effective after the comment period. 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.

³ Rule 23: <https://www.socalgas.com/regulatory/tariffs/tm2/pdf/23.pdf>