

DRAFT
Aliso Canyon Withdrawal Protocol

10.18.17

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:

- 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;
- The established practice of curtailing electric generation first in the event of a need for curtailment will be followed;
- 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; 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.

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 the risk to electric system reliability, and 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, 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 electric curtailments and/or gas curtailments to core customers. Such actions include the use of operational and emergency flow orders, curtailments of supply, and

coordination with Balancing Authorities to limit and/or reduce demand in effected areas; and

- (2) To avoid electric curtailments, 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 electric curtailments will occur without additional gas supply.

B. Service to core customers is at risk due to emergencies on the gas pipeline system or because conditions require additional supply otherwise not available. Such emergencies include pipeline shutdowns, unplanned outages, or equipment failure. Under such circumstances, when reliability to core customers is at risk and curtailment is imminent, SoCalGas may, at its sole discretion, execute a withdrawal from 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. 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. 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; and
- 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.

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 and/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 1, 2017. The protocol shall remain in effect through the completion of the CPUC Investigation (I.)17-02-002, or such time as determined based on conditions.