

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Order Instituting Investigation pursuant to Senate Bill 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility located in the County of Los Angeles while still maintaining energy and electric reliability for the region.

Investigation 17-02-002

(Filed February 9, 2017)

**OPENING COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Roger E. Collanton
General Counsel
Anthony Ivancovich
Deputy General Counsel
Anna McKenna
Assistant General Counsel
Jordan Pinjuv
Senior Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel.: (916) 351-4429
Fax: (916) 608-7222
jpinjuv@caiso.com

Attorneys for the California Independent
System Operator Corporation

January 31, 2020

Table of Contents

I. Introduction	1
II. Discussion.....	2
A. The Baseline Analysis Should Use a Reliable and Realistic Electric Resource Portfolio.....	2
B. Any Decision to Replace Aliso Canyon Should Include Mechanisms to Ensure that Planned and Assumed Resources Are Feasible and Materialize as Expected.	3
C. Other Recommendations and Questions	3
III. Conclusion	6

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Order Instituting Investigation pursuant to Senate Bill 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility located in the County of Los Angeles while still maintaining energy and electric reliability for the region.

Investigation 17-02-002

**OPENING COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to the California Public Utilities Commission’s (Commission) Rules of Practice and Procedure, the California Independent System Operator Corporation (CAISO) provides opening comments on the *Assigned Commissioner’s Phase 3 Scoping Memo and Ruling* (Scoping Memo) regarding the scope and preliminary schedule for a new Phase 3 of Investigation (I.) 17-02-002.

I. Introduction

The Commission opened this investigation pursuant to Senate Bill (SB) 380 to determine the feasibility of reducing or eliminating the use of Southern California Gas Company’s (SoCalGas) Aliso Canyon Natural Gas Storage Facility (Aliso Canyon). The Scoping Memo commences Phase 3 of this proceeding, which will develop scenarios to examine resources and infrastructure that could be implemented to entirely replace Aliso Canyon within either the 2027 or 2045 planning horizon. The CAISO generally supports the Commission’s efforts to explore resources and infrastructure additions that could entirely replace Aliso Canyon, but cautions that the Commission use input assumptions that maintain electric reliability. To the extent that the Commission ultimately establishes a path toward closing Aliso Canyon, the Commission should put in place a process to ensure that the necessary resources and infrastructure are actually in place prior to retiring the facility.

II. Discussion

A. The Baseline Analysis Should Use a Reliable and Realistic Electric Resource Portfolio.

The Commission should ensure that the Baseline Analysis for the Phase 3 studies includes a reliable and realistic electric resource portfolio as its starting point. Currently, Appendix A proposes to use the 2030 Integrated Resource Plan (IRP) Reference System Portfolio for the Phase 3 studies. In November 2019, the Commission proposed a Reference System Portfolio in the IRP based on 46 million megaton (MMT) carbon dioxide emission scenario (46 MMT Alternate Scenario). The CAISO expressed significant concerns with using the 46 MMT Alternate Scenario for electric resource planning purposes.¹ These concerns would be exacerbated if the Commission decided to use the 46 MMT Alternate Scenario in this proceeding.

The CAISO's primary concern with the 46 MMT Alternate Scenario is that the portfolio does not provide reliable electric service, as is evidenced by Energy Division Staff's own modeling results. To achieve minimum electric reliability, Energy Division Staff added 2,000 MW of "generic effective capacity" to the portfolio. This 2,000 MW of generic effective capacity does not have operational and locational characteristics and there is no plan at this time to procure this capacity. Instead, the 2,000 MW of generic effective capacity is a modeling construct that does not represent actual resources.

Including 2,000 MW of generic effective capacity is particularly concerning in the context of determining future needs from Aliso Canyon or replacement facilities. This is because it is unclear what generation will actually be procured to meet long-term electric reliability needs. In releasing the 46 MMT Alternate Scenario, Energy Division Staff commented that the 2,000 MW could "[i]n reality" be "firm imports, batteries paired with solar, geothermal, more economic retention of existing thermal generation, demand response, or other."² To determine how to replace Aliso Canyon, it will be very important to know both the operational characteristics and the location(s) of this generation. The 46 MMT Alternate Scenario does not provide these details and the Commission should not use it to study how to replace Aliso Canyon until further detailed information on the types and location(s) of this

¹ See CAISO Comments on the Proposed Reference System Plan Portfolio, <http://www.caiso.com/Documents/Dec17-2019-Comments-ProposedReferenceSystemPortfolio-R16-02-007.pdf>.

² R.16-02-007, November 6, Ruling Attachment B, p. 19.

generation is available. Similarly, the Commission should not use any other portfolio with similar undefined and unplanned resources to decide how to retire or replace Aliso Canyon.

In addition, the CAISO notes that the 46 MMT Alternate Scenario contains over 10 GW of incremental battery storage buildout by 2030. However, the 46 MMT Alternate Scenario does not provide locational information for these incremental battery storage resources. Instead, the Commission should use an alternative portfolio such as the Preferred System Plan from the 2017-2018 IRP cycle.

B. Any Decision to Replace Aliso Canyon Should Include Mechanisms to Ensure that Planned and Assumed Resources Are Feasible and Materialize as Expected.

In the event that the Commission makes a decision to retire or replace Aliso Canyon, it should establish mechanisms to ensure that any replacement facilities and assumed resources are determined to be feasible to implement and materialize as expected. Given the forward-looking timeframes contemplated in the Phase 3 Scoping Memo, any decision in this proceeding will rely on assumptions regarding future demand and resources. The Commission may also directly identify replacement facilities designed to alleviate Aliso Canyon. If the Commission ultimately directs that Aliso Canyon will be retired, it should also implement a mechanism to ensure that assumed and replacement resources materialize as expected to maintain reliability prior to retiring Aliso Canyon.

C. Other Recommendations and Questions

In this section, the CAISO discusses other general recommendations and questions related to the scope of work outlined in Phase 3 Scoping Memo.

- **Determining Services Provided by Aliso Canyon in the 2027 and 2045 Timeframes** – New modeling efforts may be necessary to determine the specific services that Aliso Canyon will provide in the 2027 and 2045 timeframes. It is possible that the Phase 2 study results will inform this effort. The Commission should clarify how it intends to quantify the services that Aliso Canyon would otherwise provide. As in Phase 2, the CAISO stands ready to provide to the Commission staff power flow assessments for minimum local generation requirements for new additional power flow studies after the load and resource assumptions are ruled and approved by the Commission.

- **2045 Load and Resource Assumptions** – Baseline electric load and resource assumptions for 2045 may not be readily available for the Phase 3 analysis. For example, the California Energy Commission (CEC) typically provides demand forecasts ten years into the future. In addition, currently there is no proceeding for considering granular portfolio assumptions for Year 2045 study. The Commission should specify how it will determine the baseline electric load and resource assumptions for 2045.
- **Considering Regional Gas Supply Limitation Scenarios** – In conducting the Phase 3 analysis, the Commission should consider scenarios in which regional gas supplies are limited (*i.e.*, gas supply to the entire Southern California area is limited) due to region-wide high demand caused by cold weather. Aliso Canyon currently provides a critical hedge against such events and the Commission’s analysis should consider gas and electric system impacts in similar constrained circumstances.
- **Considering Electric Transmission Upgrades** – The Scoping Memo notes that the Commission will consider resource and gas pipeline upgrades as replacements for Aliso Canyon. The Commission should also consider any necessary electric transmission system upgrades that may be required, especially if gas-fired generation in the Southern California must be curtailed.
- **Use of Phase 2 Results** – The Scoping Memo suggests that the Commission and its expert will use the Phase 2 modeling results to inform Aliso Canyon replacement needs. However, the Scoping Memo also suggests that Phase 3 modeling will occur concurrently with Phase 2 modeling. The Commission should clarify how these processes will integrate.
- **Sensitivity Analyses** – The CAISO agrees with the Scoping Memo’s approach to review multiple sensitivities in its analysis. Specifically, sensitivities should consider: (1) multi-day low renewable production events; (2) a dynamic gas analysis to ensure the speed of ramps from expected gas resources can be met or ensure alternatives are operable; (3) different load levels; (4) available local generation; (5) available gas delivered from shippers from out of state; and (6)

transmission pipelines being out of service due to extended maintenance timeframe.

- **Transparency in the Evaluation of Scenarios** – The Scoping Memo suggests that the Commission will rely on an expert consultant in developing scenarios to examine resources and infrastructure, including renewable and low-carbon generation, energy efficiency, electric storage, demand response, and new gas transmission pipelines that could be implemented to entirely replace the Aliso Canyon. The CAISO requests that the Commission make the evaluation by the expert consultant, including the evaluation methodology, available for review and comment. The Commission should modify the expert consultant’s evaluation methodology as necessary to ensure that the considered resources and infrastructure are feasible and cost-effective. The CAISO stands ready to perform necessary power flow analysis to help determine the effectiveness of replacement resources on the electric power grid under its control. Similarly, LADWP should also verify the effectiveness of the replacement resources on the power grid under its control.

III. Conclusion

The CAISO looks forward to working with the Commission to ensure the reliability of the electric system while considering replacement alternatives to the Aliso Canyon facility.

Respectfully submitted,

By: /s/ Jordan Pinjuv

Roger E. Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Anna McKenna

Assistant General Counsel

Jordan Pinjuv

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Tel.: (916) 351-4429

Fax: (916) 608-7222

jpinjuv@caiso.com

January 31, 2020