

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

Order Instituting Rulemaking to Develop an
Electricity Integrated Resource Planning
Framework and to Coordinate and Refine
Long-Term Procurement Planning
Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

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

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I. Introduction

The California Independent System Operator Corporation (CAISO) hereby provides comments in response to the February 11, 2019 Administrative Law Judge's Ruling Seeking Comment on proposed Scenarios for 2019-2020 Reference System Portfolio (Ruling) and Attachments A (Attachment A) and B (Attachment B) thereto, issued in this proceeding.

The Ruling and associated attachments reflect process improvements in the integrated resource planning (IRP) process. The CAISO appreciates the efforts of the Commission and Energy Division staff and provides the following recommendations:

- The Commission should clarify the intended use of the framing study scenarios;
- The Commission should ensure that at least one of the core scenarios is consistent with one of the framing study scenarios;
- The Commission should implement modeling improvements to be able to model more specific greenhouse gas (GHG) emissions limits for hydro importers in the Pacific Northwest as noted in a November 15, 2018 ruling in this proceeding;¹
- The Commission should test the new economic retention functionality before deploying it as a default assumption for core scenarios; and
- The Commission should check the Reference System Plan for reliability using the Strategic Energy & Risk Valuation Model (SERVM).

¹ Administrative Law Judge's Ruling Finalizing Production Cost Modeling Approach and Schedule for Preferred System Plan Development, p. 11.

II. Discussion

In the discussion below, the CAISO provides responses to selected questions posed in the Ruling. The relevant questions are reproduced prior to each CAISO response.

Question 1: Do you agree with the proposed 2045 framing study scenarios? What modifications should be made to better characterize the role of the electricity sector in meeting California’s GHG reduction goals in 2030 and beyond, given the zero-carbon goals outlined in SB 100 and imperfect information regarding future GHG reductions in other sectors of the economy? Provide detailed data sources which may be used in order to construct your recommended scenarios.

The CAISO agrees with the direction of the framing study scenarios to clarify the pathway and options available to reach SB 100’s GHG reduction goals while maintaining reliability. The CAISO requests that the Commission clarify how the framing study scenarios will be used and considered in the context of the other scenarios and sensitivities that end in 2030. For example, the framing study scenarios could be used to understand the need for thermal resource retention, long-lead time or out-of-state resources, and identify least-regrets investments. In Attachment B, one of the study questions for gas retention explicitly asks “Which types of gas plants provide value across the studied resource years through 2030 and in 2045?”² It is not clear how the Commission will answer this question if the 2045 framing study scenarios results are inconsistent with the 2030 scenarios results. For example, the 2045 results may show a need to retain a large portion of the thermal fleet but the 2030 scenarios do not. The CAISO recommends addressing this disconnect by creating at least one of the framing study scenarios to be consistent with at least one of the core scenarios.

Question 3: Do you recommend alternative scenarios or sensitivities for the 2030 timeframe that should be studied? If so, provide detailed rationale and data sources for the proposed additional scenarios.

Per the CAISO’s response to question 1, above, the CAISO recommends that at least one of the core scenarios to be consistent with at least one of the framing study scenarios.

² Attachment B, p. 14.

Question 4: Should the default assumption for core scenarios rely on the economic retention functionality in RESOLVE? Why or why not?

The CAISO generally supports the use of the economic retention functionality as the default assumption because it attempts to balance state policy goals with cost. Even with the economic retention functionality, the Commission should prioritize retiring gas-fired generation older than 40 years because such units tend to have an increased rate of operational failure. The Commission should test this new economic retention functionality thoroughly, including a transparent stakeholder discussion, before deploying it as a default assumption for core scenarios, in case significant changes are needed.

Question 5: Is it reasonable to implement staff’s suggested minimum local capacity requirement constraint as an interim approach for dealing with local reliability issues? Or if you prefer a different approach, explain in detail.

Yes, this approach is reasonable as RESOLVE currently cannot reflect local capacity needs. The CAISO agrees that the Commission should use the 2018-2019 Transmission Planning Process (TPP) results to establish the local capacity requirements for each area/subarea.³ The CAISO will work collaboratively with Commission Energy Division staff to ensure proper use of the TPP outputs.

Question 6: Comment on staff’s suggested “energy sufficiency” approach as described in Step 2 of Attachment B.

The CAISO supports the energy sufficiency modeling approach in RESOLVE, which will help bridge the RESOLVE and SERVVM models.

Question 7: Are there other reliability checks that you would recommend? Describe in detail.

Proper production cost modeling should be sufficient as a reliability check for IRP purposes, given that local capacity requirements are model inputs derived from the CAISO TPP studies. The CAISO recommends that the Commission improve its production cost model to address the gaps identified in prior rulings.⁴ The quality of production cost modeling is

³ Attachment B, p. 23.

⁴ Administrative Law Judge’s Ruling Finalizing Production Cost Modeling Approach and Schedule for Preferred System Plan Development, p. 11.

important to ensure the accuracy to reflect reliability requirements of the system in the IRP plans.

The CAISO understands that the reliability check will only be applied to the following three sensitivity cases: 30 Metric Tons (MMT) Default, Low Resource Adequacy (RA) Imports, and Low RA Imports and Low Thermal Retention. The CAISO urges the Commission to ensure the Reference System Plan is checked for reliability using SERVVM.

III. Conclusion

The CAISO appreciates the opportunity to provide comments and supports the Commission's Energy Division staff's efforts. The CAISO suggests that the Commission clarify the intended use of the framing study scenarios, and ensure that at least one of the framing study scenarios be consistent with at least one of the core scenarios. The CAISO also recommends that the Commission test the new economic functionality before deployment as a default assumption for core scenarios and that the Commission check the Reference System Plan using the RESOLVE and SERVVM models.

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