
I. Introduction

The CAISO’s supports suggestions for the Commission to develop a strategy to consider natural gas-fired resource retention and retirement to maintain local and system reliability. The CAISO also supports requests to increase modeling transparency and consistency and provides additional clarifications on out-of-state wind modeling assumptions.

II. Discussion


The CAISO reiterates the importance of developing a strategy to consider natural gas-fired resource retention and retirement in the integrated resource planning (IRP) processes.¹ The IRP modeling process assumes no new thermal resource retirements through 2031. The Commission has rationalized the retention of the vast majority of the

natural gas-fired fleet as a way to balance reliability and cost-effectiveness because “the modeling also shows that existing gas-fired plants are needed in 2030 as operable and operating resources, providing a renewable integration service.”\(^2\) Importantly, the Commission explained that “[e]liminating natural gas-fueled resources altogether by 2030, while maintaining reliability, would require technological solutions well beyond any of those that have been surfaced or analyzed in this proceeding to date.”\(^3\) However, this delicate balance of simultaneously relying on a particular resource type while not having readily available viable alternatives is already being threatened. In 2020, the CAISO received retirement or mothball requests from 373.5 MW of thermal cogeneration resources.\(^4\) To maintain local and system reliability, the CAISO is seeking Reliability-Must-Run (RMR) designations for these resources.

In opening comments, some parties focused on specific resource solutions to address local reliability needs in connection with natural gas-fired resource retirement.\(^5\) Although the CAISO agrees local area needs are important, the existing natural gas-fired fleet may also be needed for system reliability needs. The Commission should proactively develop a broader strategy so unplanned retirements do not erode either local or system reliability.

**B. The Commission Should Improve Modeling Transparency and Consistency.**

Several parties recommend the Commission increase modeling transparency and consistency.\(^6\) The CAISO agrees and provides specific recommendations to achieve these goals. First, the CAISO recommends the Commission provide the disaggregated SERVM hourly outputs. This will allow modeling parties to better understand and

\(^2\) Decision 19-04-040, April 25, 2019, citing to Decision 18-02-018, p. 132.
\(^3\) Decision 19-04-040, April 25, 2019, p. 132.
\(^5\) California Energy Storage Alliance (CESA) Opening Comments, p. 6 and California Environmental Justice Alliance and Sierra Club Opening Comments, p. 4.
\(^6\) Center for Energy Efficiency and Renewable Technologies (CEERT) Opening Comments, p. 7.
compare results. This is especially important because SERVM is not an industry standard production cost model and does not use the demand forecast set from the California Energy Commission’s Integrated Energy Policy Report.

Next, the CAISO agrees with parties recommending that modeling input assumptions be consistent as much as possible between RESOLVE and SERVM.7 For example, pumping loads are not categorized or treated consistently between RESOLVE and SERVM and more documentation is needed for transparency. Using inconsistent modeling input assumptions may undermine the effectiveness of the SERVM model to validate the reliability of the RESOLVE portfolio and render the exercise ineffective. The production cost modeling exercise is especially important because it validates both the loss-of-load expectation for the selected RESOLVE portfolio and the greenhouse gas (GHG) emission targets. The CAISO agrees with parties that the Commission should integrate both LOLE analyses and GHG emission validation into future portfolios.8


The Commission should clarify that the change from New Mexico to Wyoming out-of-state wind is only a modeling assumption to ensure major transmission upgrades are not inadvertently triggered. The modeling change should not be taken as definitive guidance regarding which wind resource the Commission prefers at this time. As noted in the Modeling Assumptions for the 2021-2022 Transmission Planning Process, injection of wind resources from Wyoming into the CAISO system appears to have a lower risk of marginally exceeding system capabilities than the corresponding injection points for New Mexico wind. However, the CAISO agrees with Energy Division staff there is considerable uncertainty about the marginal impacts of both of these out-of-state resources, especially combined with other in-state resources that will develop because of individual load serving entity procurement decisions. If time and resources permit, the CAISO will assess in the transmission planning process whether system upgrades are

7 Green Power Institute Opening Comments, p. 2.
8 CESA Opening Comments, pp. 2-4.
required for New Mexico and Wyoming wind and how much of either portfolio the transmission system can accommodate without upgrades.

Respectfully submitted,

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