

**UNITED STATES OF AMERICA
BEFORE THE
ENVIRONMENTAL PROTECTION AGENCY**

New Source Performance Standards for)
Greenhouse Gas Emissions from New,)
Modified, and Reconstructed Fossil)
Fuel-Fired Electric Generating Units;) EPA-HQ-OAR-2023-0072
Emission Guidelines for Greenhouse)
Gas Emissions from Existing Fossil)
Fuel-Fired Electric Generating Units;)
and Repeal of the Affordable Clean)
Energy Rule)

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

I. Summary

The California Independent System Operator Corporation (CAISO) submits these comments in the above-referenced proceeding to encourage the United States Environmental Protection Agency (EPA) to adopt appropriate mechanisms to ensure electric grid reliability in any final rule it adopts. The CAISO recognizes the EPA's proposed rule identifies several mechanisms to accommodate electric reliability. These include (1) creating sub-categories of resources for purposes of complying with the best system of emission reduction; (2) establishing lead-times for those resources to comply; (3) consulting with the Department of Energy and Federal Energy Regulatory Commission during implementation; (4) permitting state implementation plans to include averaging and emission trading, provided that states ensure a level of emission performance by the affected electric generating units that is equivalent to each source individually achieving its standard of performance; and (5) signaling EPA may exercise

its enforcement discretion where needed to address instances in which individual electric generating units may need to temporarily operate for reliability reasons. Any final rule should adopt these mechanisms and also establish additional processes to allow individual electric generator units to continue to operate temporarily based on electric reliability needs.

II. The CAISO supports efforts to decarbonize the electricity sector

The CAISO operates wholesale electricity markets for the benefit of approximately 80 percent of electric demand in California and small portion of electric demand in the state of Nevada.¹ The CAISO also serves as a planning authority over all local transmission expansion and upgrade projects on the CAISO's system and administers interconnection processes for resources seeking to connect to those facilities. In addition to our 10 year transmission plan, the CAISO undertakes a 20 year transmission outlook to assess the feasibility and cost-effectiveness of new resource portfolios and transmission lines to serve forecasted demand. We coordinate these transmission assessments with both the efforts of the California Energy Commission (CEC) efforts to plan for a zero-carbon energy grid in California by 2045 as well as the California Public Utilities Commission's integrated resource planning proceeding.

Last year, the CAISO balancing authority reached a record peak demand of approximately 52,000 MW. The CEC projects CAISO system demand to increase as sectors of the California economy continue to electrify. The resource mix in the CAISO

¹ The CAISO also serves as the market operator for the Western Energy Imbalance Market, which provides real-time market services to participating balancing authorities throughout the Western Interconnection. The CAISO also provides Reliability Coordinator services to 42 entities operating in the Western Interconnection.

balancing authority area is diverse and includes large hydro-electric, natural gas, nuclear, renewables, imported electricity, battery energy storage, and demand response. As of June 2023, the CAISO had approximately 28,250 MW of installed renewable capacity of which over 16,500 MW was solar. This number does not include behind the meter roof-top solar, which reflects approximately 12,000 MW and for which the CAISO has no real-time visibility. As of July 1, there is over 5,600 MW of battery energy storage interconnected to the CAISO controlled grid and we expect to integrate approximately 1,000 additional MW by the end of 2023.²

III. Decarbonizing the electricity sector requires deep coordination with regional and state planning entities to ensure grid reliability

Based on state resource planning and procurement directives in California and the CAISO's current interconnection queue, new resource development to serve California will include significant amounts of in-state and out of state solar and battery energy storage. The state's resource portfolio will also likely include offshore wind, out of state wind, geothermal, long duration energy storage as well as distributed energy resources and virtual power plants. The CAISO must integrate new clean capacity at an unprecedented rate to help achieve California's clean energy goals by 2045. The success of this resource transition away from fossil fueled resources will depend on various factors, including coordinated infrastructure planning and deployment. This

² More information about the CAISO's supply mix is available on the CAISO's website: <http://www.caiso.com/TodaysOutlook/Pages/supply.aspx>

coordination is critical to take advantage of diverse technologies, fuel sources, and geography.

Although renewables and clean resources are increasingly replacing fossil fuel resources and the CAISO is integrating clean resources at a rapid pace, additional variables such as climate change-induced extreme weather events such as excessive heat, drought, and wildfires are also happening more frequently, persisting longer and becoming more severe. These variables may impede the resource transition underway. To ensure reliability as the grid transitions to carbon-free sources, we may continue to need natural gas resources in future years to balance the system during periods of the day or year when weather-dependent or energy-limited resources may have diminished availability.

An opportunity exists for California and other states to take advantage of each other's load profiles and resource diversity to help reduce the need for fossil fuel electric generators. This is already occurring today in the context of the Western Energy Imbalance Market and could increase with the extension of a day-ahead market platform to balancing authorities in the West. Beyond greater coordination in resource commitment and dispatch to support transmission operations across the western United States, significant opportunities also exist to coordinate resource adequacy programs and resource planning decisions across the western region. For example, coordination of resource adequacy programs could provide a wider area view of resource sufficiency in the year-ahead, season-ahead and month-ahead timeframes.

The importance of coordination with and among state and regional planning entities will increase as greater volumes of availability- and energy- limited resources

interconnect to the electric system and the volume of imports on which balancing authority areas have traditionally relied tighten. As a result of the changing resource mix, climate change, and electrification of various sectors of the economy, we cannot assume that historic patterns of resource and load diversity will remain. State planning entities and balancing authorities will need to refresh assumptions used in resource and grid planning studies on a regular basis and continue to assess how best to coordinate within new paradigms. In light of changing grid conditions, the EPA should consider appropriate mechanisms to ensure electric grid reliability in any final rule it adopts.

IV. Conclusion

The CAISO supports EPA's proposal to allow for state implementation plans to include averaging and emission trading as well as EPA's commitment in connection with the proposed rule to exercise its enforcement discretion where individual electric generating units may need to temporarily operate for reliability reasons. EPA should also consider establishing additional pathways in any final rule to allow resources to operate on a temporary basis notwithstanding compliance schedules, if needed to support electric grid reliability. These pathways could include a process to authorize specific resources to operate for a limited time based on a showing of reliability need or allowing states to demonstrate in their implementation plans that a temporary electric reliability need outweighs achieving emission reductions at specific facilities based on

the best system of emission reduction when considering other steps and mitigation taken to reduce emissions within the state, air districts, and local communities.

Respectfully submitted,

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