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Additional submitted attachment is included below.



May 18, 2021

California Energy Commission
Docket No. 21-IEPR-04

Written Comments of The Center for Energy Efficiency and Renewable Technologies (CEERT) regarding the 2021 Integrated Energy Policy Report (IEPR) Workshop on Summer 2021 Electric Reliability

CEERT appreciates the California Energy Commission's (CEC's) facilitation of the 2021 IEPR Joint Agency Workshop on Summer 2021 Electric Reliability (Joint Agency Workshop). This workshop demonstrates the importance of partnership and collaboration between all of the state's energy agencies and stakeholders. As the grid becomes more flexible and diverse, so too should the regulatory arena to reduce siloing and facilitate a holistic, transformative approach to California's economy-wide decarbonization.

Addressing electric reliability for this coming summer and beyond is one of the most immediate steps in the state's electric grid transformation. However, CEERT concurs with California Public Utilities Commission (CPUC) President Marybel Batjer's opening statement at the Joint Agency Workshop that, while the state agencies have worked diligently to ensure reliability going forward, not all of the decisions made to address this summer are ones that we celebrate. California will unfortunately continue to heavily rely on natural gas generation to keep the lights on unless the state's load serving entities (LSEs) are directed to procure enough replacement clean energy and capacity. The contradiction of addressing energy reliability during climate change-induced extreme weather events through relying on dirty fossil fuels cannot continue if the state is to successfully decarbonize the grid in a timely, just, and cost-effective manner. Thus, the state's energy agencies and their partners must work together to break this feedback loop as soon as possible. This includes not only encouraging additional clean energy procurement on a large scale, but also limiting backup diesel generator utilization to emergency-only status. Furthermore, the CEC should evaluate real-time emission data from fossil fuel and backup diesel generators to better understand the actual amount of emissions from these generators and how that level varies in different conditions, including during extreme heat storms.

The stack analyses presented by the California Independent System Operator (CAISO) and the CEC at the Joint Agency Workshop provide important guidance as California prepares to enter the summer months and the beginning of wildfire season. For example, the CAISO's stack analysis reveals that higher loads associated with a 1-in-10 forecast are attributed to including last year's weather events in the stochastic analysis. As extreme weather events become more and more frequent, CEERT believes a 1-in-5 or 1-in-10 forecast should become the planning standard to better reflect the realities of the electric grid in the face of climate change.

Additionally, the CAISO's analysis shows that retaining gas-fired generation and adding storage improve expected performance for 2021. However, this conclusion does not take environmental factors into consideration, namely greenhouse gas emissions. The need for timely but clean energy can be met by

alternative technologies, such as hybrid solar plus storage. Hybrid solar plus storage resources can provide both reliability and environmental value to California's resource portfolio, allowing the state to reduce its dependence on fossil fuel generation. Yet, clean hybrid resources cannot currently compete on a level playing field with fossil fuel generation and be fairly compensated for their resource adequacy benefits. Thus, the ongoing changes to the CPUC's Resource Adequacy program are critical to allow the grid to take full advantage of these resources' ability to shift energy from peak solar production to net peak demand hours.

The treatment of hybrid solar plus storage in the state's current planning process – in addition to resources such as long-duration energy storage, geothermal, and offshore wind – highlights the sorely needed adjustment to the state's modeling tools to better reflect the realities of the changing grid. Updated and reimagined modeling tools are essential to send correct market signals, encourage additional clean energy procurement, and thus facilitate rather than hinder California's clean energy transition.

As such, CEERT believes the CEC's inclusion of hourly load data in its stack analysis is a step in the right direction. However, CEERT believes a more comprehensive analysis of each LSE's hourly load profile would help elevate this analysis in the context of resource adequacy planning. Furthermore, CEERT strongly encourages the state's energy agencies to continue to update their analyses with transmission availability data. The CEC's inclusion of the CPUC's recent procurement order in its stack analysis is understandable; however, without timely transmission available to deliver energy to the customer, the reliability contribution of those resources is nullified. Thus, a renewed focus on transmission system development and improvement will allow for a more comprehensive approach to grid reliability.

Additionally, representing unplanned outages by an increase in the planning reserve margin (PRM) does not accurately account for the actual operation profile of the natural gas fleet during extreme weather events. The state's energy agencies should account for the uncertainty around unplanned outages through an assumption such as unforced capacity (UCAP). By accounting for uncertainty directly in the calculation of need, the analysis would better reflect the performance of the natural gas fleet during high heat events.

CEERT also wishes to reiterate the stipulation made by the CEC in regard to the conservative demand response (DR) assumptions in its stack analysis. Demand-side solutions, such as DR and energy efficiency, are critical pieces of the diverse resource portfolio needed for California's decarbonized electric grid. As a follow-up study to this stack analysis in the 2021 IEPR, the CEC should evaluate how the state can facilitate more widespread DR integration through changes to DR metrics and state programs.

Again, CEERT greatly appreciates the CEC's facilitation of this Joint Agency Workshop. This convening, akin to the SB 100 Joint Agency Report and related workshops, represents a necessary shift in the dynamics of California's energy policies and planning towards a higher level of collaboration, both within California and between neighboring states. The blackouts of Summer 2020 and subsequent mitigation events have revealed the important role each agency, LSE, and stakeholder has in addressing California's critical energy issues. Furthermore, both the CAISO and the CEC's stack analyses reveal the importance of maintaining fruitful relationships with our neighbors as grid regionalization remains an ongoing development in the West. Thus, CEERT strongly encourages the Joint Agencies and other

reliability partners to build on the spirit of collaboration displayed in the Joint Agency Workshop, and we look forward to continued engagement within and beyond this 2021 IEPR process.

Sincerely,

A handwritten signature in black ink, appearing to read "V. John White". The signature is fluid and cursive, with the first name "V." being a simple initial and "John White" written in a more elaborate, connected script.

V. John White
Executive Director