Rulemaking No.:	20-11-003
Exhibit No.:	
Witness:	K. Meeusen
ALJ:	Stevens
Commissioner:	Batjer

Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Reliable Electric Service in California in the Event of an Extreme Weather Event in 2021	Rulemaking 20-11-003

REPLY TESTIMONY OF DR. KARL MEEUSEN
ON BEHALF OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

January 19, 2021

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I. INTRODUCTION

Q1. Have you previously provided testimony in this proceeding?

A1. Yes, I provided opening testimony on January 11, 2021. My professional background is provided therein.

Q2. What is the purpose of your reply testimony?

A2. My reply testimony addresses the following issues:

(1) The need to increase the planning reserve margin to provide the CAISO effective backstop authority for summer 2021 needs;

(2) The potential role of the CAISO's Significant Event Capacity Procurement Mechanism (CPM) in meeting summer 2021 needs; and

(3) How to effectively use emergency load reduction program (ELRP) and demand response resources to meet summer 2021 needs.

II. INCREASING THE PLANNING RESERVE MARGIN

Q3. Several parties suggest that the Commission need not increase the planning reserve margin to meet summer 2021 reliability needs. Please explain how the proposed increase in the planning reserve margin provides the appropriate solution to best meet 2021 reliability requirements.

A3. Increasing the planning reserve margin will allow the CAISO to exercise its CPM to address any monthly resource adequacy capacity showing deficiencies. If the Commission directs increased capacity procurement for 2021—without an attendant increase in the planning reserve margin—the CAISO will not have authority to issue a monthly deficiency CPM if the incremental capacity is not procured. Specifically, under Section 43A.2.3 of the CAISO tariff, the CAISO has authority to designate CPM capacity only when load serving entities are deficient in meeting their "annual and monthly Demand and Reserve Margin Requirements."[1] Even if the Commission requires additional procurement, the CAISO would not have authority to issue a monthly CPM to

[1] CAISO Tariff Section 43A.2.3.

address a deficiency in load serving entities' resource adequacy showings because the incremental procurement requirement would not be part of the monthly "Demand or Reserve Margin Requirements."

III. CAISO SIGNIFICANT EVENT CPM AUTHORITY

Q4. Do you agree with PG&E's suggestion that the CAISO modify its business practice manual (BPM) to increase its Significant Event CPM authority?

A4. No. As I explained in opening testimony, the CAISO's Significant Event CPM authority is limited and well-defined in the CAISO tariff. The CAISO cannot expand its tariff-defined Significant Event CPM authority through a BPM change. Rather, any substantive change would require a CAISO tariff amendment. In any event, Significant Event CPM authority is clearly not intended or designed to be a substitute to properly establishing necessary and appropriate PRM levels and resource adequacy procurement obligations to reflect current realities and foreseen circumstances.

IV. DEMAND RESPONSE AND LOAD REDUCTION ISSUES

Q5. SCE expresses concerns regarding double payments in situations where an ELRP event's hours overlap with another demand response program's event hours. Are there other concerns that must be addressed for participation in both an IOU resource adequacy DR program and an ELRP?

A5. The CAISO agrees the Commission should prohibit double payments to ELRP participants, but the Commission must also be cognizant of double capacity counting and crediting. In my opening testimony, I expressed concerns about "dual participation" for capacity counting reasons. The CEC load forecast will capture ELRP load curtailment as a load modifier rather than as a supply-side resource under the resource adequacy demand response program. Ensuring there is no double counting of capacity is critical and should be an important consideration in designing the ELRP, planning its interaction with other resource adequacy demand response eligible programs, and ensuring that ELRP megawatts are incremental and distinguishable from other resource adequacy demand response program megawatts.

Q6. Do you agree with SCE's assertion that "there is no reason to specify whether the ELRP should be dispatched before or after the BIP"?

A6. The Commission should adopt a "resource adequacy first" principle for the dispatch of resource adequacy resources prior to calling on non-resource adequacy resources such as the ELRP. Load serving entities have paid for resource adequacy resources to be available, visible and dispatchable by the CAISO to maintain system reliability. Accordingly, these "paid-for" resource adequacy resources should be dispatched and used first before calling on non-resource adequacy ELRP resources.

"Resource adequacy first" is an important principle for several reasons. First, the CAISO should have a clear idea of how much available resources are available to meet the CAISO's reliability needs and should not have to wait to see how well a voluntary program, such as ELRP, performs before dispatching resource adequacy resources. Additionally, given the dual participation concerns discussed above, dispatching ELRP before resource adequacy resources could reduce the demand response potential the CAISO expects from BIP and other resource adequacy demand response resources if the megawatts between the ELRP and resource adequacy demand response resource are not clearly incremental or if the customer receives multiple calls causing customer fatigue. As noted in my opening testimony, ELRPs should be considered as an insurance program, and, like insurance, should only be used when all else fails. In other words, resource adequacy resources should be fully dispatched to prevent an emergency condition in the first instance, and then non-resource adequacy options, like the ELRP, can be called after or simultaneously to ensure an emergency condition or serious threat of an emergency doesn't grow worse given all resource adequacy options have been exercised.

In addition to the aforementioned reliability concerns, there are cost and environmental reasons for adopting a "resource adequacy first" principle. The system and ratepayers

should not incur additional costs and pay for ELRP resources if already compensated resource adequacy resources are still available and undispatched. Utilizing non-resource adequacy demand response resources first would degrade the cost-effectiveness of the resource adequacy product ratepayers paid for by potentially reducing its intended use and without considering the costs of the ELRP.

Finally, the demand response programs used to provide resource adequacy are not allowed to rely on prohibited resources, like back-up diesel-fired generators. If the ELRP is allowed to use prohibited resources, then the "resource adequacy first" principle for resource adequacy demand response is that much more important, potentially preventing the unnecessary use of diesel or other fuel-backed emergency generating resources.

As I noted in my opening testimony, if the Commission adopts an ELRP dispatch trigger that would precede existing resource adequacy demand response program triggers, then it should also advance the triggers of the existing resource adequacy demand response programs so that the resource adequacy first principle is always respected. ELRP should only be eligible for dispatch after, or potentially simultaneously with, other resource adequacy demand response programs. For example, if the ELRP can be notified day-ahead for load reduction the following operating day, then similarly, resource adequacy demand response programs like BIP and AP-I should be eligible for a day-ahead commitment to ensure resource adequacy resources, which have been paid for, are used and useful before relying on a voluntary program like ELRP. ELRP is insurance in case resource adequacy resources are insufficient to meet the system's reliability needs.

Q7. SCE states "The IOUs' DR Load Impact Reports are used to determine a DR program's resource adequacy allocation for each month. DR Load Impact Reports use a regression analysis to determine a program's average load impacts, whereas CAISO settlements use a baseline calculation, such as a 10-in-10 or 5-in-10 baseline. These different methods will cause a difference in results." SCE claims the CAISO baseline is "biased because it relies on prior days' data where there were no dispatches and the temperatures were lower." Please explain why the CAISO uses a baseline calculation approach to calculate demand response resource performance.

A7. SCE's reference to the Load Impact Reports—which the Commission uses for planning purposes and to set qualifying capacity values for demand response programs—is not the appropriate metric to gauge actual demand response resource performance to a dispatch instruction. Instead, demand response performance should be measured against the appropriate baseline selected by the demand response provider. The CAISO adopted the customer baseline load methodologies for operational and settlement purposes through an open and transparent stakeholder process, including conducting a "California ISO Baseline Accuracy Assessment" performed by Nexant. As part of that process, the CAISO worked with stakeholders, including demand response providers and the investor owned utilities, to establish the most accurate and consensus-based customer baseline load options to assess demand response resource performance.[2]

Pursuant to that process, the CAISO sought, and FERC approved, several baseline options for demand response resources. The CAISO offers demand response providers a broad array of FERC-approved baselines with appropriate day-of adjustment caps. These approved baselines represent the appropriate metric to assess demand response resource performance on a resource specific and event-by-event basis. Investor owned utilities, likewise, apply "energy baselines" that assess event-day performance, and include non-event days to capture the customer's typical use energy profile, and they also employ day-of adjustment factors in their baseline calculations.[3]

[2] Baseline assessments where done through the baseline accuracy working group (BAWG), which was part of the CAISO's Energy Storage and Distributed Energy Resources Phase 2 initiative. More information on this initiative can be found here: https://stakeholdercenter.caiso.com/StakeholderInitiatives/Energy-storage-and-distributed-energy-resources#phase2

[3] *See* SCE's Schedule CBP- Capacity Bidding Program tariff, Section 12 at: https://library.sce.com/content/dam/sce-doclib/public/regulatory/tariff/electric/schedules/other-rates/ELECTRIC_SCHEDULES_CBP.pdf

SCE states that the CAISO's day-of adjustment factor is 20%.[4] That is correct when a demand response provider elects a 10-in-10 day matching baseline for non-residential customers. However, the CAISO offers demand response providers broad flexibility to elect the best and most suitable baseline for their customer type and situation. For example, the CAISO offers a weather-matching baseline for residential and non-residential customers that is best suited to weather/temperature sensitive loads, and it employs a +/- 40% day-of adjustment factor,[5] similar to SCE's day-of adjustment factor for its capacity bidding program.[6] The CAISO offers demand response baselines with appropriate day-of adjustment caps as outlined in its tariff section 4.13.4, Performance Evaluation Methodologies for PDRs and RDRRs.[7]

V. CONCLUSION

Q8. Please summarize your recommendations.

A8. The Commission should increase the planning reserve margin as recommended in the CAISO's direct testimony. The increased planning reserve margin will provide the CAISO the opportunity to use its monthly CPM authority to address a deficiency in load serving entities' resource adequacy showings. The CAISO's Significant Event CPM authority is limited by the its tariff and should not substitute for properly established planning reserve margin levels and resource adequacy procurement obligations.

If the Commission implements an ELRP, it should also adopt protections to avoid dual participation and to ensure that resource adequacy demand responses are dispatched prior to, or simultaneously with, ELRP resources.

Q9. Does this conclude your testimony?

A9. Yes, it does.

[4] SCE testimony at pg. 40
[5] CAISO tariff Section 4.13.4.5c. (ii)- Weather Matching Methodology
[6] SCE Schedule CBP- Capacity Bidding Program tariff Section 12, subsection b.
[7] CAISO Tariff Section 4 found here: http://www.caiso.com/Documents/Section4-Roles-and-Responsibilities-asof-Jan1-2021.pdf