

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

Order Instituting Rulemaking to Oversee the  
Resource Adequacy Program, Consider  
Program Refinements, and Establish Forward  
Resource Adequacy Procurement Obligations

Rulemaking 19-11-009  
(Filed November 7, 2019)

**REPLY COMMENTS ON TRACK 4 PROPOSALS AND WORKING GROUP REPORT  
OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Roger E. Collanton  
General Counsel  
Anthony Ivancovich  
Deputy General Counsel  
Jordan Pinjuv  
Senior Counsel  
California Independent System  
Operator Corporation  
250 Outcropping Way  
Folsom, CA 95630  
Tel: (916) 351-4429  
[jpinjuv@caiso.com](mailto:jpinjuv@caiso.com)

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**I. Introduction**

The California Independent System Operator Corporation (CAISO) submits its reply comments on the Track 4 proposals and Working Group Report, pursuant to the December 11, 2020 *Assigned Commissioner’s Amended Track 3B and Track 4 Scoping Memo and Ruling* (Amended Scoping Memo).

**II. Discussion**

**A. The Commission Should Discontinue Non-Neutral Credits and Require Load Serving Entities to Show Demand Response Resources on Resource Adequacy Supply Plans.**

In Track 4, the CAISO proposed the Commission discontinue all non-net neutral credits and require all resources counting for resource adequacy be shown on supply plans. This proposal stems from the CAISO’s Proposed Revision Request (PRR) 1280 process, in which the CAISO and Commission committed to “work constructively and collaboratively to resolve these issues by August 1, 2021.”<sup>1</sup> Several parties support the CAISO’s proposal to require supply plan showings for all resource adequacy resources.<sup>2</sup> Parties support the proposal because it will provide more consistent treatment across all resources providing resource adequacy capacity, including the application of must offer obligations and availability incentives. The CAISO

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<sup>1</sup> See: <http://www.aiso.com/Documents/ExecutiveAppealsCommitteeDecision-PRR1280-Dec092020.pdf>

<sup>2</sup> Department of Market Monitoring of the California Independent System Operator Corporation, p. 5; Calpine Corporation Opening Comments, p. 11; Western Power Trading Forum Opening Comments, p. 3; and Middle River Power Opening Comments p.13.

agrees with these parties. All other resource adequacy resources, including investor owned utility demand response must be shown on supply plans and adhere to CAISO's resource adequacy tariff provisions to count towards resource adequacy requirements. There is no justification for discriminating and treating demand response programs differently between third-party demand response providers, who must show their demand response programs as resource adequacy capacity, and IOU demand response providers who do not. This is especially true given the resources serve the same operational and reliability purposes and are sourced from similar aggregations of customers and customer loads. Such treatment is unreasonable and unduly discriminatory.

Parties also generally support using a counting methodology that accounts for the variable and energy-limited nature of demand response, such as an effective load carrying capability (ELCC) methodology, coupled with a resource adequacy availability incentive mechanism (RAAIM) exemption as the CAISO proposes in Track 3B.1. The CAISO agrees with Calpine Corporation (Calpine) and the CAISO's Department of Market Monitoring (DMM) that even if the Commission does not adopt an ELCC or similar methodology that accounts for the variable and limited use nature of demand response, all demand response should still be shown and be subject to the same must offer obligation and availability incentives as all other resource adequacy resources. DMM states,

absent a counting methodology that accounts for the variable nature of demand response (and would allow these resources to be exempt from the ISO's RAAIM like other variable energy resources), the ISO's proposal could cause load-serving entities to more conservatively estimate the amount of demand response capacity to show on supply plans in order to minimize exposure to RAAIM. This effect could allow the ISO to have a more accurate picture of how much capacity is reliably available across peak load hours.<sup>3</sup>

The CAISO agrees this is the appropriate outcome if the counting methodology remains unchanged. However, the CAISO and other parties support changing the counting methodology to the ELCC approach, which would warrant a RAAIM exemption and treat and value demand response similar to other variable energy resources.<sup>4</sup>

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<sup>3</sup> Department of Market Monitoring of the California Independent System Operator Corporation, p. 6.

<sup>4</sup> See also a more detailed discussion in CAISO Reply Comments in Track 3B.1, pp. 10-14.

California Large Energy Consumers Association (CLECA), the Joint Parties, and Southern California Edison (SCE) state there are “barriers” that must be addressed prior to ending non-net-neutral crediting and requiring supply plan showings for all resource adequacy resources.<sup>5</sup> These include addressing (1) the must offer obligation and potential RAAIM exposure associated with being a resource adequacy resource and (2) the adders currently applied to demand response through crediting. Neither of these “barriers” should delay adopting the CAISO’s proposal to end non-net-neutral crediting for resource adequacy year 2022. Regarding the first barrier, the CAISO proposed an alternative counting methodology in Track 3B.1 that accounts for the variability and energy-limited nature of demand response. Implementing such a counting methodology would appropriately recognize demand response as a variable resource and justify a RAAIM exemption to allow demand response resources to bid above or below their net qualifying capacity (NQC) depending on their actual capability every hour. Regarding the second barrier, the CAISO proposed eliminating the planning reserve margin (PRM) and transmission adder for the reasons described in the next section. There is no need to retain these unsupported adders as a resource adequacy credit. On the other hand, the CAISO does not disagree with a distribution adder given the CAISO settlement is performed as if the load curtailment response occurred at the transmission-distribution interface. Given the operational, capacity sufficiency, accountability, and regulatory compliance concerns associated with crediting and the proposed modifications to the current treatment of demand response that address parties’ two concerns, the Commission should discontinue non-net-neutral credits and require supply plan showings for all resources by resource adequacy year 2022.

**B. The Commission Should Discontinue Applying the Planning Reserve Margin and Transmission Adders to Demand Response Resource Qualifying Capacity Values.**

In Track 4 of this proceeding, the CAISO proposed the Commission stop including a PRM adder in demand response capacity values.<sup>6</sup> The CAISO also provided comments supporting Energy Division staff’s proposals to discontinue the PRM adder and the transmission

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<sup>5</sup> Southern California Edison (SCE) Opening Comments, p. 18 and California Large Energy Consumers Association (CLECA), p.15.

<sup>6</sup> CAISO Opening Comments on Track 4 proposals, p. 9.

line loss adders for demand response resources' qualifying capacity values.<sup>7</sup> Discontinuing these adders will most accurately reflect demand response resources' actual operational characteristics and capability. Several stakeholders agree the Commission should remove the PRM and line loss adders, including San Diego Gas and Electric (SDG&E), Calpine, and Middle River Power.<sup>8</sup> Cal Advocates Office and DMM also voiced support in removing the PRM adder.<sup>9</sup> As explained below, the CAISO agrees with including the distribution line loss within the demand response resource's qualifying capacity value.

Some parties, however, seek to retain all or a portion of the PRM adder. The Commission established the PRM to ensure LSEs procure sufficient capacity to meet peak demand plus an allowance for operating reserves, forecast error, and forced outages. CLECA argues demand response avoids the need for operating reserves.<sup>10</sup> In contrast, Southern California Edison (SCE) recognizes it is unreasonable to gross up demand response for operating reserves because the CAISO procures operating reserves to serve all forecasted load, including load shed by demand response. The CAISO agrees with SCE. Moreover, the CAISO is required to carry operating reserves at all times based on actual conditions to meet applicable reliability criteria regardless of whether demand response is activated.<sup>11</sup>

However, SCE also suggests the Commission retain demand response adders associated with the forecast error and forced outage portions of the PRM. SCE argues the forecast error associated with demand response resources are gone when load is curtailed because most SCE demand response reduces customer load to an agreed upon value (such as to the firm service level) and through direct load control.<sup>12</sup> SCE's argument seems to conflate two different forecast errors. SCE seems to argue that because their demand response programs curtail load, the programs themselves do not have a forecast error. However, the PRM forecast error element addresses deviation between real-time load and the planning forecast, *i.e.*, the 1-in-2 monthly

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<sup>7</sup> CAISO Opening Comments on Track 4 proposals, pp. 5-6.

<sup>8</sup> SDG&E Opening Comments on Track 3B.1 proposals, pp. 7-8; Calpine, pp. 9-10; Middle River Power Opening Comments, p. 14.

<sup>9</sup> The Public Advocates Office at the California Public Utilities (Cal Advocates), pp. 34-35 and Department of Market Monitoring (DMM) of the California Independent System Operator Corporation, pp. 3-5.

<sup>10</sup> CLECA Opening Comments, p.11. CLECA also refers to operating reserves as planning reserves.

<sup>11</sup> CAISO Opening Comments on Track 4 proposals, p. 9.

<sup>12</sup> SCE Opening Comments, p. 20.

load forecast. SCE's demand response program performance, whether fixed or not, does not reduce load forecast error in this planning context. Real-time electricity use will continue to vary from the 1-in-2 load forecast regardless of demand response or any particular resource adequacy resource type.

SCE's argument only works, from a logical perspective, if the demand response programs hold actual energy usage to a fixed amount. In other words, only if the underlying load never deviates from the 1-in-2 load forecast. However, the key element to SCE's argument is a forecast error *may be* avoided in those few instances a year when the demand response is called upon. In order for this to be a viable argument, the demand response would need to be called upon constantly, which is more akin to energy efficiency or permanent load shift. Consequently, the CAISO finds SCE's argument stands on a flawed premise, conflating operations with planning.

SCE also argues the load impact protocols (LIP) already include historical forced outages, thereby requiring a gross up for forced outages to prevent double counting from LIP and the PRM.<sup>13</sup> This argument is not compelling for two reasons. First, other resources, notably wind and solar, also have their outages reflected in their qualifying capacity value through the effective load carrying capability (ELCC) methodology. In other words, demand response is not unique in this regard and use of the LIP should not exempt demand response resources from similar treatment. Next, the forced outage rate in the PRM is a system planning number for future outages that occur across the resource adequacy fleet during the resource adequacy compliance period. Unless and until the Commission adopts a more granular outage allocation by resource, such as the CAISO's Unforced Capacity (UCAP) proposal, demand response does not in and of itself reduce the forced outage rate of the system. As noted above, in order for this to be a viable argument, the demand respond would need to be called upon constantly so that the curtailed load is never served, which is more akin to energy efficiency or permanent load shift. Consequently, the CAISO finds the premise of SCE's argument is flawed and again conflates operations with planning functions.

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<sup>13</sup> SCE Opening Comments on Track 3B.1, 3B.2, and 4 Proposals, p. 21.

Both SCE and the Joint Parties argue the Commission should retain the transmission and distribution line loss adders because demand response resources reduce the need to transmit power over the transmission and distribution system.<sup>14</sup> The CAISO disagrees with applying a transmission line loss adder for demand response resources. As stated in the CAISO’s opening comments, distributed energy resources do not receive any credit for transmission line losses even though they are similarly situated on the transmission grid as demand response resources.<sup>15</sup> Therefore, to remain equitable with distributed energy resources, the CAISO continues to believe that a transmission line loss adder is not appropriate for demand response resources. Furthermore, as a market resource, demand response resources’ impact on marginal transmission line losses is already reflected in the locational marginal price paid to the resource at its pricing node.

For distribution losses, both distributed energy resources and supply-side demand response resources are modeled at the CAISO grid interface, with the Settlement Quality Meter Data adjusted for distribution line losses as if the demand response (and in fact for all distribution side resources) occurred at the transmission interface.<sup>16</sup> Thus, the CAISO agrees with parties that the distribution line losses should be reflected in demand response resource adequacy valuation and demand response market bids should incorporate avoided distribution line losses.<sup>17</sup> Therefore, the Commission can include the value associated with a demand response resource distribution line loss avoidance in the qualifying capacity value of demand response resources, but should understand that there will be minor differences between the resource’s value based on the inclusion of a static distribution system loss factor versus the performance measurement settled using one that is dynamic.

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<sup>14</sup> SCE Opening Comments, p. 19 and California Efficiency + Demand Management Council, CPower, Enel X North America, Inc., Leapfrog Power, Inc., and OhmConnect, Inc. (collectively, the “Joint Parties”) Opening Comments, p. 2.

<sup>15</sup> CAISO Opening Comments on Track 4 proposals p. 6.

<sup>16</sup> CAISO Opening Comments on Track 4 proposals, p. 6. *See also*: CAISO Tariff Section 10.3.3.

<sup>17</sup> SCE Opening Comments, pp. 9-10 and Joint Parties Opening Comments, p. 2.



### **C. Energy Division Staff's Demand Response Maximum Cumulative Capacity Bucket Proposal**

In opening comments, Joint Parties advised against adopting Energy Division staff's proposal to decrease demand response maximum cumulative capacity (MCC) bucket from 8.3% to 5.3%.<sup>18</sup> The Joint Parties noted that the current 8.3% cap already limits some demand response provider participation and puts third-party and investor-owned utility programs on unequal footing.<sup>19</sup> Upon further consideration, the CAISO withdraws its support of the Energy Division staff's proposal to lower the demand response MCC category to 5.3%.<sup>20</sup>

In light of the potential effects on demand response providers identified by Joint Parties, the CAISO urges the Commission to further study the impacts of the current 8.3% cap in the demand response bucket to urgently address equity issues between IOU and third-party provided demand response while carefully considering the capacity and energy contribution from different resource adequacy resource types.

### **III. Conclusion**

The CAISO appreciates the opportunity to comment.

Respectfully submitted

**By: /s/ Jordan Pinjuv**

Roger E. Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Jordan Pinjuv

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Tel: (916) 351-4429

[jpjuv@caiso.com](mailto:jpjuv@caiso.com)

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<sup>18</sup> Joint Parties Opening Comments in Track 4, pp. 7-8.

<sup>19</sup> Joint Parties Opening Comments in Track 4, p. 7.

<sup>20</sup> CAISO Opening Comments in Track 4, pp. 7-8.