

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

Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local and Flexible Procurement Obligations for the 2016 and 2017 Compliance Years

Rulemaking 14-10-010  
(Filed October 16, 2014)

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
REPLY COMMENTS ON PROPOSED DECISION**

**I. Introduction**

Pursuant to Rule 14.3 of the Commission’s Rules of Practice and Procedure, the California Independent System Operator Corporation (CAISO) submits these reply comments on the *Proposed Decision Adopting Local and Flexible Capacity Obligations for 2018 and Refining the Resource Adequacy Program* (Proposed Decision). These reply comments (1) support adoption of an effective load carrying capacity (ELCC) methodology that accurately accounts for behind-the-meter (BTM) photovoltaic (PV) resources; (2) support an effort to address multi-year resource adequacy requirements; and (3) clarify the CAISO’s recent efforts to adopt updated Availability Assessment Hours.<sup>1</sup>

**II. Discussion**

**A. ELCC**

The majority of parties agree with the CAISO’s position that the Commission should adopt an ELCC methodology that most accurately reflects the resource adequacy value of wind and solar resources. Specifically, the Commission should not adopt Energy Division’s second ELCC proposal, which fails to account for the impact of BTM PV. The Energy Division’s first proposal and Calpine Corporation’s (Calpine) proposal both model approximately 6 gigawatts of BTM PV in their ELCC analysis, but even that assumption may understate the impact of BTM PV based on the CAISO’s latest review of BTM PV projections.<sup>2</sup> BTM PV has a significant impact on the ELCC values for solar resources, as indicated in the Proposed Decision.<sup>3</sup> Ignoring BTM PV in the ELCC methodology will negatively impact short-term reliability and will increase the risk of retirement for resources that may be necessary to maintain system reliability in the future.

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<sup>1</sup> Terms not otherwise defined herein are used as defined in the CAISO Tariff, Appendix A.

<sup>2</sup> [http://www.caiso.com/Documents/AgendaandPresentation\\_2018AnnualReviewofAvailabilityAssessmentHoursJun6-2017.pdf](http://www.caiso.com/Documents/AgendaandPresentation_2018AnnualReviewofAvailabilityAssessmentHoursJun6-2017.pdf), estimating over 8,000 MW of BTM PV in 2018.

<sup>3</sup> Proposed Decision, p. 20.

The CAISO echoes the concerns raised by Calpine in opening comments regarding the short-term and long-term reliability consequences of ignoring the impact of BTM PV resources. In the short term, backing BTM PV out of the ELCC model causes solar resources to contribute more toward resource adequacy requirements than actually expected. As a result, other resources will not receive 2018 resource adequacy contracts due to the overvaluation of solar resources, thereby leading to a direct reliability concern in 2018. Calpine points out that “overcounting solar jeopardizes the economic viability of resources that ultimately will be needed to maintain reliability once ELCC is fully implemented.”<sup>4</sup> This potentially raises a long-term concern in which the overvaluation of solar resources in this resource adequacy cycle hastens the retirement of units that will be needed to maintain system reliability in the future. Given the rapidly change nature of California’s electric system and the planned retirement of approximately 7,500 MW of capacity by 2025,<sup>5</sup> the Commission should not adopt an ELCC methodology that will further risk the early retirement of resources that may be necessary in the future. As a result, the CAISO agrees that the Commission should adopt either the Energy Division’s first proposal or Calpine’s ELCC methodology, both of which account for BTM PV and more accurately reflect the resource adequacy values for wind and solar resources.

### **B. Multi-year Resource Adequacy**

Opening Comments on the Proposed Decision indicate a significant level of support for the Independent Energy Producer Association’s proposal to explore multi-year resource adequacy requirements.<sup>6</sup> The CAISO agrees that a narrowly focused effort to assess whether to implement multi-year resource adequacy resources is warranted at this time. As noted in several parties’ opening comments, there have been numerous recent actual or proposed retirements of units connected to the CAISO Controlled Grid.<sup>7</sup> In a separate track of this proceeding dedicated to multi-year resource adequacy requirements, the Commission can consider how to best manage planned and unplanned resource retirement while avoiding CAISO backstop procurement to the extent practical.

### **C. Availability Assessment Hours**

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<sup>4</sup> Comments of Calpine Corporation on the Proposed Decision, p. 4.

<sup>5</sup> An Assessment of Capacity Under Contract: An Energy Division Draft Staff Working Paper, December 22, 2016, p. 12.

<sup>6</sup> Comments of Calpine Corporation on Proposed Decision, p. 5-6; Comments of Cogentrix Energy Power Management, LLC on the Proposed Decision Adopting Local and Flexible Obligations for 2018 and Refining the Resource Adequacy Program, p. 9-10; NRG Energy, Inc. Reply Comments on Proposed Decision, p. 4-6, Southern California Edison Company’s Opening Comments on Proposed Decision of ALJ Allen Adopting Local and Flexible Capacity Obligations for 2018 and Refining the Resource Adequacy Program, p. 3-4; Comments of the Western Power Trading Forum on Proposed Decision, p. 4-5;

<sup>7</sup> Comments of Calpine Corporation on the Proposed Decision, p. 4, fn. 7.

The California Large Energy Consumers Association (CLECA) and the Joint Demand Response Parties (Joint DR Parties) raise concerns with the CAISO's establishment of Availability Assessment Hours for system and local resource adequacy.<sup>8</sup> The CAISO tariff section 40.9.3.1 requires the CAISO to annually "establish and publish in the Business Practice Manual the Availability Assessment Hours applicable for resources providing local and/or system Resource Adequacy Capacity for each month of that year." The Availability Assessment Hours are required to be

- a pre-defined set of five consecutive hours for each month that –
  - (A) correspond to the operating periods when high demand conditions typically occur and when the availability of Resource Adequacy Capacity is most critical to maintaining system reliability;
  - (B) vary by season as necessary so that the coincident peak load hour typically falls within the five-hour range each day during the month, based on historical actual load data; and
  - (C) apply to each Trading Day that is a weekday and not a federal holiday.

In compliance with this tariff provision, the CAISO sought to establish Availability Assessment Hours for 2018 based on its analysis of historical peak load hours. The CAISO presented this analysis at a stakeholder webinar on June 6, 2017.<sup>9</sup> The results of the analysis indicate that coincident peak load hours have shifted later in the day during summer months, defined as the period from April 1 through October 31, in large part due to the penetration of BTM PV. No parties have raised significant concerns regarding the CAISO's substantive analysis.

This analysis was not available during the course of this resource adequacy proceeding, in part due to the unavailability of study inputs, as discussed in the CAISO's Opening Comments on the Proposed Decision.<sup>10</sup> The CAISO understands the potential negative implications of a disconnect between the CAISO's Availability Assessment Hours and the hours used in the Energy Division's calculation of Qualifying Capacity. As a result, the CAISO intends to file a one-time waiver of its tariff provision to maintain the current Availability Assessment Hours for system and local resources for 2018. Going forward from 2018, the CAISO will modify the Availability Assessment Hours as necessary to ensure compliance with its tariff.

Respectfully submitted,

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<sup>8</sup> Comments of the California Large Energy Consumers Association on the Proposed Decision of Administrative Law Judge Peter Allen, p. 7; Opening Comments of Cpower, EnerNoc, Inc., and EnergyHub on Proposed Decision Adopting 2018 Local and Flexible Capacity Obligations and Refining Resource Adequacy Program, p. 6-7.

<sup>9</sup> [http://www.caiso.com/Documents/AgendaandPresentation\\_2018AnnualReviewofAvailabilityAssessmentHoursJun6-2017.pdf](http://www.caiso.com/Documents/AgendaandPresentation_2018AnnualReviewofAvailabilityAssessmentHoursJun6-2017.pdf).

<sup>10</sup> California Independent System Operator Corporation Opening Comments on Proposed Decision, p 2.

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Date: June 19, 2017