

**Comments of the Staff of the California Public Utilities  
Commission on the CAISO’s Flexible Resource Adequacy “Phase 2”  
Working Group Meeting (August 18th, 2015)**

Submitted by	Company	Date Submitted
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The Staff of the California Public Utilities Commission (CPUC Staff) appreciate the opportunity to comment on the CAISO and Southern California Edison presentations made at the “FRAC-MOO 2” Working Group Meeting on August 18th. Preliminarily, CPUC Staff would like to reiterate that the development, publication, and discussion of analysis should be the primary function of the working group over the next few months. Specifically, this analysis and discussion should focus on how over-generation may pose operational challenges in future years, and what the solutions may be to these potential challenges. Given the expansive nature of the challenge, as defined by CAISO thus far, it seems that this initiative should focus on challenges, and not only on the proposed solution of enhanced must offer obligations. The potential solutions considered should include changes to CAISO market operation, compared with changes to procurement requirements, including must-offer obligations, and potentially other mechanisms as well. We also encourage CAISO to conduct cost-benefit analyses that compares potential solutions to meet operational flexibility needs.

In addition to our previous requests, CPUC Staff requests additional explanation for why the CAISO believes that an RA product is the most effective way to address potential over-generation in years 2018-2023. The current proposal seems aimed at reducing the likelihood of over-generation, not the need for ramping, which was the original intent of adopting a Flexible RA product. CPUC Staff also notes that there are many tools available to reduce the likelihood of over-generation, including market-based tools such as negative pricing events. CPUC Staff encourages CAISO to consider the role of the day-ahead and real-time energy market to mitigate potential over-generation concerns, which seems more effective and appropriate compared to a year-ahead resource adequacy requirement.

**Questions about the current CAISO proposal**

- Is the goal of Flexible RA requirements to support ramping needs or to address over-generation?
- How can ensuring capacity availability help with downward ramping needs? The connection between these two concepts is not clear.
- How does the current proposal compare to the existing tools in CAISO’s toolbox of market and operational mechanisms—are those tools insufficient to deal with over-generation?

### Request for Information:

- What quantity of the wind and solar generation that is bidding in to the CAISO markets is responsive to negative market prices? What percentage of the renewable “fleet” does this represent? We suggest that this information would help inform stakeholders at the next working group meeting.

### Calculation of monthly requirements:

- How should 3-hour ramping and over-generation needs be modeled and understood in the medium term? These have been modeled in the LTPP proceeding, but only beginning at 2024. (To date we are not aware of any modeling that has been done to understand needs in the medium term.)
- What would the implications be for current contracts held by the LSEs for system capacity in the non-summer months that cannot meet the proposed definition of flexible capacity?

### Comments on the SCE proposal

CPUC Staff appreciate the time and effort that SCE put in to developing an alternate proposal for a durable flexible product. The SCE proposal is simpler and less complex than the current CAISO proposal. The SCE proposal is simpler because it preserves the current definition of flexible RA as a 3 hour product to meet a single flexibility requirement. Because it doesn't call for different definitions based on season, it is also much less complex, while simultaneously giving CAISO the ability to ensure that it has the resources it needs in the coming month to maintain reliability. It accomplishes this via a multi-dimensional test to “validate” the monthly RA portfolio. During this validation period CAISO could test the shown portfolio to see if it has the capability to meet 2,000 MW of 15-minute ramp, 4,000 MW of 1 hour ramp, etc, and then deficiencies could be addressed. CPUC Staff wishes to further discuss this “validation” process before weighing in on whether we would be supportive of this provision.

CPUC Staff also appreciates the analysis conducted by SCE that demonstrates that the existing fleet would be able to meet almost all ramping needs predicted for the system under the 2024 LTPP trajectory case. This is valuable analysis and helpful information to have at hand.

### CPUC Staff Analysis on over-generation in the near term

CPUC Staff has looked into how much over-generation is likely to occur during the 2018 RA year based on CAISO's flexible capacity needs assessment. Based on this preliminary analysis, it appears unlikely that the CAISO system would experience significant over-generation events in 2018. CAISO produced a study of predicted net loads for each month in 2018 as part of the Flexible Capacity Needs Assessment for 2016.<sup>1</sup> In this study, the only months that are predicted to experience any days with a minimum net load below 12,000 MW are April and May. In each of those months, only 3 days were

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<sup>1</sup> This data is available in the excel file titled “2018 Net Load Data Flexible Capacity Needs” available at: <http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleCapacityNeedsTechnicalStudyProcess.aspx>

predicted with net loads below 12,000 MW. No days in either month were predicted to go below 11,000 MW.

However, the values in the published flexible needs study do not correspond to the values presented on slide 14 at the recent working group meeting. It is our understanding that the values presented were derived from 2024 LTPP modeling. These two sets of numbers present very different versions of future net loads. They appear similar in some months and vastly different in others (as illustrated in the table below) and lead to very different conclusions about the immediacy of an over-generation challenge.

<b>Month</b>	<b>2018 Minimum Net Load Flex Study</b>	<b>(Rough) 2018 Minimum Net Load Slide 14</b>
<b>January</b>	16732	11000
<b>February</b>	16103	9500
<b>March</b>	13805	6250
<b>April</b>	11541	10750
<b>May</b>	11252	12500
<b>June</b>	16068	10250
<b>July</b>	19060	12250
<b>August</b>	18808	16750
<b>September</b>	13775	13750
<b>October</b>	13060	12750
<b>November</b>	14196	12500
<b>December</b>	14137	11750

This leads CPUC Staff to conclude that the solution being presented by CAISO to the working group may not be necessary for RA year 2018, and rather CAISO is aiming to address perceived needs or challenges in the longer term.