California ISO

Stakeholder Comments Template

Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the Resource Adequacy Enhancements third revised straw proposal that was published on December 20, 2019. The proposal, stakeholder meeting presentation, and other information related to this initiative may be found on the initiative webpage at: http://www.caiso.com/StakeholderProcesses/Resource-Adequacy-Enhancements

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **January 27, 2020**.

Submitted by	Organization	Date Submitted
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CLECA's primary interest in the Resource Adequacy (RA) enhancements is to obtain the proper balance of reliability and cost. The California Public Utilities Commission (CPUC) has the responsibility of making that determination and has adopted a planning reserve margin based upon a reliability criterion of 1 in 10 years. Customers that require higher levels of reliability will install their own backup generation. Any and all decisions on changing RA requirements to increase reliability must be based on adequate data and analysis. Otherwise, excessive costs will be passed on to consumers.

Please provide your organization's comments on the following issues and questions.

1. System Resource Adequacy

Please provide your organization's feedback on the System Resource Adequacy topic as described in section 5.1. Please explain your rationale and include examples if applicable.

The CAISO proposes a new protocol of using Unforced Capacity (UCAP) in addition to Net Qualifying Capacity (NQC), as a measure of capacity for Resource Adequacy (RA). The CAISO alleges that the current protocol of a 15% Planning Reserve Margin (PRM) is simply insufficient to manage the system. On a significant

percentage of days, the CAISO claims, the system would not have enough capacity to meet its planning targets.

CLECA believe that the CAISO has not provided adequate justification for its UCAP proposal. Based upon the CAISO's analysis of peak loads and available RA capacity from May 2018 through July 2019, the CAISO concludes that, on 17.5% of days, it would not have had adequate RA capacity to meet its planning targets.[1]

The CAISO analysis is problematic for several reasons. The first is the underlying data. CAISO's study compared the 1 in 2 peak plus the PRM against RA capacity. However, the renewable RA capacity is based upon Effective Load Carrying Capability (ELCC), which is a measure of capacity contribution at the time of loss of load expectation. With the growth of renewable resources, the loss of load expectation is moving away from the system peak and toward the net peak (which is determined after accounting for solar and wind). In addition, the modeling for the ELCC already includes an embedded forced outage adjustment when determining the qualifying capacity contribution. The RA target also includes a gross-up for outages due to the PRM. Therefore, forced outages are accounted for twice; first, in the ELCC value (which would be a reduction) of capacity, and second, a gross up in the load due to the PRM. By using ELCC, the CAISO's study likely underestimates the available contribution of solar and wind to the afternoon peak load.

Further, we believe that one year of recent data does not provide sufficient evidentiary support for a major change to the RA program. We recognize, as the CAISO acknowledges, that it does not have available at its disposal even five years of plant outage data. In its Straw Proposal, CAISO recommends collecting such data in the future but this effort will obviously take time. We strongly encourage the development of more data from recent years and ongoing retention of such data to better inform this reliability assessment. Additionally, the data, such as hydro, would need to be adjusted for weather.

As a point of comparison, the Effective Load Carrying Capability (ELCC) analysis conducted by the CPUC's Energy Division (ED) depends on the development of load curves based on a historical relationship between weather and load over a period of thirty-five years from 1980 through 2014. Moreover, the analysis is done through probabilistic modeling.[2]

We note that forced outages are also a probabilistic phenomenon, which is why they are labeled as "forced," as opposed to "planned." But in its analysis, the CAISO seems to convert the occurrence of historical probabilistic outages into deterministic data. In the ELCC analysis, which the CAISO plans to use for determining UCAP values for solar and wind, probabilistic data for determining capacity values are used. We are deeply concerned that the use of a mix of deterministic and probabilistic data in performing an analysis of the reliability consequences will not produce meaningful results. CLECA encourages other stakeholders to weigh in on this issue.

[1] CAISO Resource Adequacy Enhancements Third Revised Straw Proposal, December 20, 2019, at 12.
[2] Proposal for Creation of Loss of Load and Solar Effective Load Carrying Capability Values for 2018 Resource Adequacy Compliance Year, CPUC – Energy Division, December 16, 2016, at 5.

Another problem with the CAISO proposal is that while it makes an argument for its "bottom up" approach in the calculation of the UCAP vis- a vis a "top down" approach, the ELCC methodology for solar and wind resources essentially is based on a "top down" approach. This leads to yet another troubling inconsistency between fossil, hydro, and storage resources on the one hand and solar and wind on the other.

Additional concerns regarding use of the UCAP protocol for hydro and storage include that it is not clear if the capacity shortage chart in the CAISO's presentation includes data for hydro and storage or just fossil resources.[3] We assume that hydro forced outages are due to operational considerations other than water supply. Is this a correct assumption? We note too that storage presents an even more complicated challenge, because, typically, a charging resource[4] is coupled with storage and will have to be considered in the calculation of the resources' combined forced outage rates.

If the CAISO does institute the UCAP protocol for RA it is not clear if the CPUC will follow suit or if it will continue to use its existing net qualifying capacity (NQC) protocol. The RA process essentially involves coordination among three entities, namely, the CEC (for its load forecast), the CPUC for Resource Adequacy, and the CAISO. Therefore, the CAISO should be cautious in proposing to change its protocols without close coordination with the CPUC and the CEC.

For all of the above reasons, we believe that the CAISO's proposal for a UCAP methodology is premature. In its earlier comments in the CAISO's RA Enhancements process, the CPUC's Energy Division (ED) recommended pursuing other options in lieu of the UCAP method. ED recommended that the CAISO could increase the Resource Adequacy Availability Incentive Mechanism (RAAIM) penalty to be equal to the soft-offer-cap, which could lead to a decrease in the forced outage rate.[5] An adjustment to the PRM could be performed if the current fleet forced outage rate has increased since the PRM was adopted. These two options should also be considered in this stakeholder process. Other options such as using a 1 in 5 weather year are inappropriate as the PRM already incorporates adverse weather years. As a result, using such a weather year would overestimate the required amount of capacity to meet the 1 day in 10 years reliability metric.

CLECA is very concerned about the additional cost that would be passed onto customers from this change in methodology since many power contracts' payments are based upon NQC and not UCAP. Several LSEs and the CPUC Staff noted this concern and the cost impacts that would be placed upon customers. Should the UCAP proposal be utilized, then it should only apply to new resources or new contracts. A grandfathering of existing contracts should be allowed; the CAISO should work with the CPUC to determine if there should be a limit to the duration of the grandfathering period.

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[3] CAISO Resource Adequacy Enhancements Third Revised Straw Proposal, December 20, 2019, at 12.

[4] This could be on-site generation or power from the grid to maintain the state of charge.

[5] CPUC Energy Division Stakeholder Comments, RA Straw Proposal, August 5, 2019, at 2.

Please provide your organization's position on the System Resource Adequacy topic as described in section 5.1. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

We cannot support this proposal for the reasons mentioned above. Additional data and analysis are needed.

2. Flexible Resource Adequacy

Please provide your organization's feedback on the Flexible Resource Adequacy topic as described in section 5.2. Please explain your rationale and include examples if applicable.

Please provide your organization's position on the Flexible Resource Adequacy topic as described in section 5.2. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

3. Local Resource Adequacy

Please provide your organization's feedback on the Local Resource Adequacy topic as described in section 5.3. Please explain your rationale and include examples if applicable.

Please provide your organization's position on the Local Resource Adequacy topic as described in section 5.3. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

4. Backstop Capacity Procurement Provisions

Please provide your organization's feedback on the Backstop Capacity Procurement Provisions topic as described in section 5.4. Please explain your rationale and include examples if applicable.

Please provide your organization's position on the Backstop Capacity Procurement Provisions topic as described in section 5.4. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

Additional comments

Please offer any other feedback your organization would like to provide on the Resource Adequacy Enhancements third revised straw proposal.