

California Community Choice Association

SUBMITTED 08/03/2022, 02:28 PM

Contact

Shawn-Dai Linderman (shawndai@cal-cca.org)

1. Please provide a summary of your organization's general comments on the second revised straw proposal presentation for this initiative:

California Community Choice Association (CalCCA) generally supports the California Independent System Operator Corporation's (CAISO's) second revised straw proposal for the Energy Storage Enhancements stakeholder initiative. The CAISO has made significant improvements to the enhanced co-located functionality proposal by removing the qualifications and time restrictions on storage resources' ability to utilize this functionality. The CAISO should modify one additional aspect of this proposal to remove the applicability of the Resource Adequacy Availability Incentive Mechanism (RAAIM) for outages submitted due to charging limitations from the on-site renewable. CalCCA thanks the CAISO for its modifications made to the co-located enhancements proposal thus far in response to stakeholder feedback.

2. Provide your organization's comments on the proposed reliability enhancements for storage resources, as described in the second revised straw proposal:

The example day within CAISO's presentation on operational experience with storage ancillary service (AS) awards clearly demonstrates that storage resources are becoming a primary source of regulation. As such, it is increasingly important to ensure storage resources can deliver on their AS awards. That said, the CAISO's presentation provides an analysis of one day, and shows that 92 percent of total storage deviations were attributed to only five units. Before moving forward with the proposed changes, the CAISO should first investigate whether or not these storage deviations consistently occur among only a small set of the same storage resources or if this really is an overarching issue for storage technologies. If the problem is one of a few units routinely not following their AS awards, the most logical next step to resolve the issue is for the CAISO to investigate these circumstances and potentially move forward with decertifying these specific resources from providing AS. If the CAISO can demonstrate this is an overarching issue, and not just a few storage resources not following their AS awards, then the CAISO's proposals described below appear reasonable to ensure storage resources can meet their AS awards.

The CAISO's first proposal is to consider regulation awards in the state-of-charge (SOC) calculation. The CAISO proposes to include a multiplier to the regulation component of the SOC charge formula to reflect the amount of regulation that will factor into the SOC for the next interval. The CAISO requested feedback on whether or not the CAISO should define the multiplier closer to the interval to reflect actual expectations or use the average so that market participants have more certainty about what multiplier the CAISO will use in the formula. CalCCA supports the CAISO defining the multiplier

on a regular basis to better reflect actual expectations in the future as the historical data shows how season or time of day/hour impacts SOC differently.

The CAISO's second proposal is to require upward and downward AS awards to have accompanying energy bids in the opposite direction. The CAISO proposes these energy bids cover 50 percent of the AS award. This percentage is reasonable as it aligns with the CAISO requirement that storage resources retain energy equal to 30 minutes in the real-time market. However, the CAISO should not enforce this requirement if the resource is already at a SOC that allows the resource to fully deliver on its AS award. Without making this modification, storage resources may be required, under this rule, to bid a range of charge or discharge capability that it cannot physically meet because of where it is currently situated. For example, assume a +/- 12 megawatts (MW) resource has an AS award to provide 9 MW of regulation up. Under the CAISO's proposal, this resource would be required to bid a 4.5 MW range of charging capability. What happens if the resource is already fully charged and cannot charge anymore? What happens if the resource is already charged 9 MW, and therefore can fully deliver on its AS award, but only has 3 additional MW left of charging capacity?

Local Reliability Tools

CalCCA does not oppose the CAISO's proposal to enhance the logic for second-tier constraints to ensure that energy is available from storage resources to meet local reliability needs. The CAISO should, however, consider in the Transmission Planning Process (TPP) how transmission upgrades could alleviate local area constraints and reduce reliance on the use of this tool and the minimum online commitment (MOC) constraint.

Exceptional Dispatch Tools

CalCCA supports the CAISO's proposal to compensate storage for exceptional dispatches to hold SOC and the CAISO's proposed change to the timeframe used to construct the counterfactual that covers the exceptional dispatch period and all the following hours of the same operating day.

3. Provide your organization's comments on the proposed co-located enhancements, as described in the second revised straw proposal:

CalCCA appreciates the CAISO's consideration of stakeholder feedback on this topic and the considerable improvements made in this iteration of the proposal. The CAISO's proposal would allow all storage resources the option to enable market functionality that will prevent on-site storage from receiving dispatch instructions in excess of co-located renewable output. CalCCA strongly supports this proposal and the CAISO removing limitations on the use of this tool.

CalCCA agrees with commenters that the CAISO should use the renewable component's day-ahead forecasts to schedule storage charging in the day-ahead market if no bids are available (rather than the storage component receiving no schedule to charge at all if there is no day-ahead bid from the onsite renewable). This will allow for more optimal day-ahead schedules based upon what the forecast predicts the resource will be able to do in real-time, rather than waiting until real-time for any charging schedule.

CalCCA does not support the CAISO's proposal to apply RAAIM to resources with outage cards, submitted due to a lack of SOC and no ability to charge due to lack of generation from the on-site renewable. Use-limited resources are currently not subject to RAAIM.^[1] The CAISO market optimizes use-limited resources in a manner that reflects the opportunity costs of using the resource's limited availability. RAAIM does not apply here because the use-limited resource's unavailability is not a function of the resource itself (e.g. plant trouble or some other operational issue) but rather the CAISO market's determination of the resource's optimal use through the market clearing process which includes consideration of the opportunity costs of using the resource now versus preserving its use for later. The same logic should apply for co-located storage resources limited in their ability to charge. Resources bid and the CAISO market dispatches resources based upon their limited ability to charge and discharge. If the CAISO utilizes the resource at one point in the day such that it cannot charge the resource later, for example, if the market dispatches the battery such that it is depleted at 8pm and there is no solar generation from the onsite renewable to charge the resource, this resource should not receive a RAAIM penalty for not being able to charge from 8pm to 9pm.

^[1] Reliability Requirements BPM at 124.

4. Provide your organization's comments on the proposed WEIM classification for this initiative, as described in the second revised straw proposal:

Section 5 of the second revised straw proposal indicates the proposed changes in this initiative fall within the scope of joint authority because Energy Imbalance Market (EIM) balancing authority areas will be able to use the energy storage resource model. Now that the CAISO has moved the energy storage resource model to a new initiative, the CAISO should update this section to describe the EIM governing body classification for the current scope: the reliability enhancements and the co-located enhancements.

6. Provide your organization's comments on the addendum to the second revised straw proposal:

CalCCA also supports the proposed change to the storage default energy bid (DEB) calculation, issued in the Addendum and posted on July 18, 2022, that would incorporate opportunity costs into the day-ahead market DEB calculation. Because the CAISO market optimizes resource dispatch across the entire day in the day-ahead market, it is logical that when market power mitigation is applied in one period of the day but not the other, storage resources could be dispatched in a non-profit-maximizing manner if opportunity costs are not considered.