

**Comments of the California Wind Energy Association
On CAISO's Proposed On-peak Deliverability Study Generation Dispatch Assumptions**

June 20, 2022

Introduction

CalWEA appreciates CAISO updating the generation dispatch assumptions in its deliverability assessment methodology. The dispatch assumptions indeed require reform, but other aspects of the methodology also require reform, as discussed in the 10/18/21 proposal submitted by CalWEA and the California Energy Storage Alliance in the CAISO's Policy Initiative Catalog. Therefore, we strongly encourage the CAISO to initiate a broader inquiry as soon as possible.

Regardless of its original intent, the current gross peak (secondary system need or SSN) deliverability assessment study has become inappropriately aimed at preventing local over-supply and curtailment impacts on interconnecting resources. This is particularly true now that the gross peak load hours that SSN was intended to capture are no longer risky due to an abundance of solar resources. The ironic result of this flawed analysis is that many resources that can help the CAISO-controlled grid by providing RA capacity when it is most needed (when the probability of resource capacity deficiencies is highest) are deprived of deliverability status and thus prevented from contributing to system reliability.

This dispatch update, if properly implemented, will certainly help to correct the problem. Particularly since this effort addresses just one aspect of the deliverability methodology, CalWEA believes CAISO should tackle this issue with a vision that supports the state's SB 100 policy goals and truly represents the contribution of zero-carbon resources to system reliability. The proposed dispatch adjustments, however, are not likely to significantly increase the amount of deliverable capacity that is recognized to be available – perhaps on the order of hundreds of megawatts. The reasonable modifications that CalWEA suggests below are much more likely to increase such capacity – perhaps on the order of thousands of megawatts.

1. HE 18 belongs in the High System Need (HSN) window

Extending the SSN window to hour ending (HE) 18 is inappropriate because, as a gross-load test, SSN should include only the hours around peak consumption load with low/medium risk of unserved load. The 2022 summer assessment data shows that HE18 - HE21 has high risk and HE16 - HE17 has low/medium risk. Note that, as shown on slide 10 of the CAISO's June 6 presentation, HE18 has more occurrence of inadequate reserve margin (low unloaded capacity margin) than HE21.

For these reasons, CalWEA recommends not changing the existing definition of the HSN and SSN windows.

2. Energy storage (ES) dispatch assumptions in near-term deliverability studies should be set as needed to balance load and resources

CAISO examined resource production on three "capacity challenged" historical days in July 2021 (Slides 14-16). Production levels at HE18 for these three days are the basis for the proposed 80 percent energy storage dispatch assumption. There are three flaws in this approach. First, energy storage is a dispatchable resource and should therefore be studied at the expected output level instead of at an arbitrary exceedance level at times when solar output is high and storage resources are reasonably

expected to be charging to be ready for the HSN period to maintain system reliability. Second, on all three selected days, HE18 is at or just after the CAISO net peak load, i.e., HE18 should be an HSN hour instead of an SSN hour. During the hours before peak load, energy storage resources should either be charging or producing near zero MW. Lastly, relatively few ES resources were online in 2021 and their production is not representative of future production where storage resources will be procured primarily to serve as energy-shifting reliability resources.

For these reasons, CalWEA recommends that, in near-term studies, i.e., annual NQC studies until 2027, 4-hour and under ES resources be dispatched only as needed to balance load and resources, and not be included in the stress dispatch scenarios.

3. Energy storage dispatch in long-term deliverability studies should be set to offline or charging

The material presented does not support the proposed study assumptions for three reasons. First, as we pointed out above, HE18 belongs in the HSN window. Second, the proposed assumption of 50% dispatch for ES is based on a mismatch of hours for solar and storage – it completely relies on HE18 and ignores all other hours in the SSN window. The SSN study assumption for solar PV was derived from all hours in the SSN window that have an unloaded capacity margin less than 6%. CAISO should verify ES production during hours with low-capacity margins to maintain correlation with storage resources. Even at HE18, the CAISO's analysis (Slide 20) shows a 30% minimum unloaded capacity margin, which indicates there is no reliability risk at all. Therefore, this data does not support a 50% dispatch assumption for storage.

For these reasons, CalWEA recommends that ES should not be included in the long-term SSN analysis.

4. Conclusion

The deliverability assessment should be based on assumptions relating directly to the maintenance of system reliability; otherwise, barriers to interconnection are created. The CPUC's adopted resource plan for 2032 calls for over 40 GW of clean resources – primarily solar and storage -- to be interconnected by 2032 (starting in 2023). The deliverability study assumptions should reflect the expected use of these resources to meet reliability needs. This, in turn, will help enable these resources to obtain the deliverability status they need to interconnect and serve the reliability needs of the CAISO-controlled grid. Interconnecting resources will separately consider whether curtailment concerns outweigh the value of deliverability status, and curtailment concerns will be ameliorated by the fact that many solar projects will be paired with ES.