# Comments of Powerex Corp. on
Western EIM Resource Sufficiency Evaluation Enhancements
Analysis Of Load Conformance Impact

Submitted by	Company	Date Submitted
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Powerex appreciates the opportunity to submit comments on CAISO's April 1, 2022 web meeting to discuss the CAISO's analysis entitled *Load Conformance Impact On The Resource Sufficiency Evaluation* ("CAISO Analysis"). The CAISO Analysis explored the CAISO's extensive and systemic practice of manually adjusting the load forecast used in the HASP and FMM, and whether this practice affected the ability of the CAISO balancing authority area ("BAA") to pass the EIM Resource Sufficiency Evaluation ("RSE") as it is currently implemented.

The CAISO Analysis is one aspect of a more comprehensive discussion of the EIM RSE being pursued in this stakeholder process, as shown below:

Scope Of Issues: Resource Sufficiency Enhancements
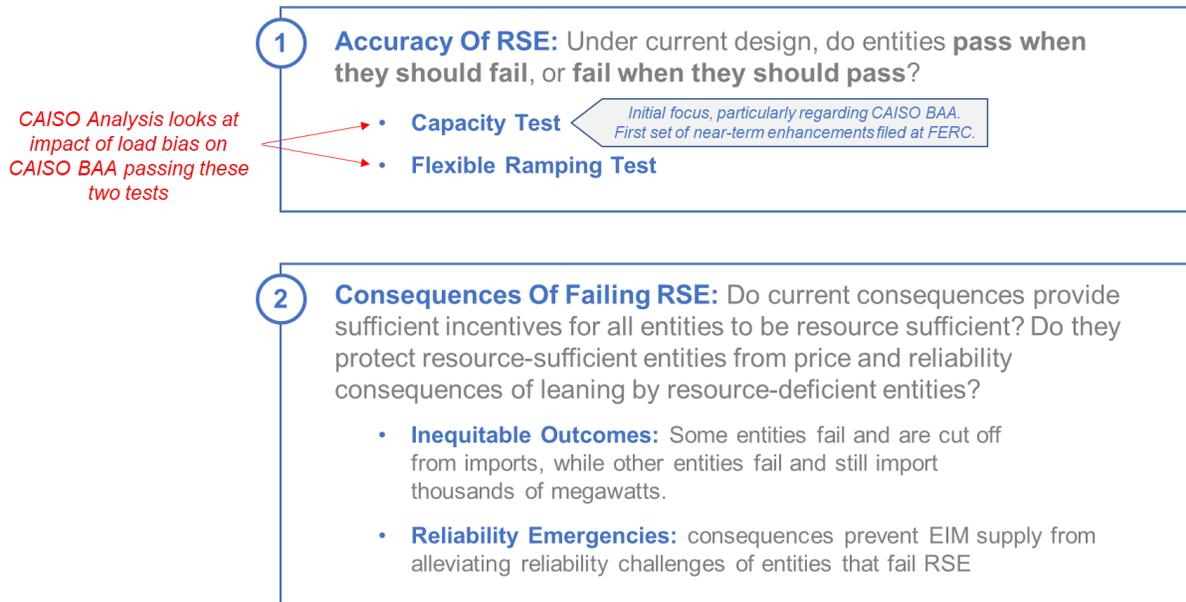
The CAISO Analysis concludes that load biasing does not appear to be contributing to the CAISO BAA passing the RSE, as it is currently designed and implemented. Powerex appreciates the analysis and information provided by the CAISO, but notes it does not address the fundamental question: ***does load biasing result in the CAISO BAA using EIM imports to meet its reliability needs (i.e., leaning)?***

Powerex believes the following factors are directly relevant to this question:

Load biasing is used far more frequently, and to a far greater extent, in the CAISO BAA than in any other EIM Entity. Systemic load biasing has been used in the CAISO BAA for many years, and its use continues to grow, with average hourly levels exceeding 1,400 MW during 2021 Q4.[1]

Load biasing is used to meet a reliability need in the CAISO BAA. The CAISO has previously explained that its operators use load biasing as a "crude tool" to force the market software to commit and procure additional supply (including imports), since operators do not have confidence that the current market design would otherwise commit or procure sufficient supply to ensure reliability.

Load biasing drives EIM imports into the CAISO BAA. Based on CAISO's analysis, load biasing appears to have virtually no effect on the quantity of *non-EIM* imports secured through the HASP process, and instead appears to result in nearly all additional imports being secured through the EIM.

These factors indicate that CAISO operators are regularly identifying a reliability need that requires procurement of substantial additional import supply, and that supply is being obtained through the EIM. These outcomes suggest that this systemic reliability need—which is satisfied through additional EIM imports—should not be ignored when evaluating whether or not the CAISO BAA is resource sufficient *in advance of* the EIM.

Powerex believes a fuller understanding of the impact of the CAISO's systemic load biasing on the functioning of the EIM RSE requires a more comprehensive analysis, including the areas identified below.

Question 1: Does the RSE fully capture the supply needed for the CAISO BAA to meet its reliability needs without leaning on the EIM?

The fact that the CAISO Analysis concluded that the CAISO BAA would pass the RSE without load biasing raises questions about whether the RSE is properly capturing the capacity and flexibility that is actually needed to reliably serve load in the CAISO BAA. In particular, Powerex believes the following questions still need to be addressed:

1. What is the specific reliability need that CAISO operators are seeking to meet through load biasing?

2. How can this reliability need be incorporated into the supply requirements for the RSE, so that the CAISO BAA is accountable for fully meeting its reliability needs ahead of the EIM, rather than potentially leaning on EIM imports to meet these needs?

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[1] California ISO Department of Market Monitoring *Q4 2021 Report On Market Issues And Performance,* (April 4, 2022), at pp. 1,5, 55 and Fig. 1.43.

Question 2: How do increased EIM transfers resulting from CAISO load biasing impact the rest of the EIM Area?

Powerex believes it is also important to evaluate how the CAISO's use of load biasing impacts other EIM Entities. By driving large quantities of EIM transfers to the CAISO BAA, load biasing will result in additional generation resources of other EIM Entities being committed and scheduled in the Fifteen Minute Market ("FMM") during the most challenging hours of each operating day, in order to support exports to the CAISO BAA. This can result in the resources of other EIM Entities being "maxed out" to support exports, leaving those BAAs with little remaining headroom to respond to meeting their own subsequent 5-minute needs.

In some cases, it appears that the CAISO's use of load biasing has had the effect of depleting all the available (and deliverable) EIM supply across the broader EIM footprint, and causing price spikes across multiple EIM Entity BAAs. For example, CAISO's analysis appears to illustrate three consecutive days (Sept 7th, Sept 8th and Sept 9th 2021) when CAISO operators had high levels of load bias, but the CAISO also cut large quantities of non-EIM exports from the CAISO BAA and experienced very high prices (suggesting that the CAISO BAA experienced or approached power balance violations); at the same time, the CAISO was receiving significant quantities of EIM imports that, while high, did not reach the CAISO BAA's EIM import limit for failing the RSE. That is, EIM imports into the CAISO BAA appear to have been limited only by the availability of supply in the EIM. These outcomes illustrate that CAISO's load biasing puts additional strain on the entire EIM footprint during already-tight conditions, including causing price spikes across multiple BAAs as those entities' surplus supply is exhausted to support exports to the CAISO BAA.

Question 3: How has the CAISO's "load bias limiter" tool impacted the prices paid and received for EIM imports triggered by load biasing?

The CAISO's use of load biasing is intertwined with the "load bias limiter," which is able to reduce the load bias quantity entered by CAISO operators in order to avoid price spikes. The load bias limiter only applies in the pricing run, so it has no impact on the quantity of EIM imports the CAISO BAA receives; its only impact is to reduce the price for those imports.

Question 4: How has load biasing raised the quantity of EIM imports the CAISO BAA is able to receive in a subsequent interval in which it has failed the RSE?

The CAISO Analysis only examines whether load biasing enables the CAISO BAA to pass the RSE (as it is currently designed and implemented), but it does not examine the impact of load biasing on the ability of the CAISO BAA to continue to receive high levels of EIM imports even when it fails the RSE. It is clear that load biasing directly results in increased EIM imports, but it is also recognized that high levels of EIM imports in one interval raise the import limit that will continue to be permitted in subsequent intervals if the receiving BAA happens to fail the RSE. This exacerbates the highly asymmetric and inequitable outcomes, in which the CAISO BAA is able to continue to import thousands of MWs from the EIM when it fails the RSE, while all other

EIM entities are restricted to far lower (or zero) quantities of EIM imports following an RSE failure.[2] While changes to the EIM RSE failure consequences will be explored in Phase 2 of this initiative, the use of systemic load biasing in the CAISO BAA appears to directly limit the effectiveness of even the existing consequences framework.

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[2] *Id.* at Fig. 2.10.