

Stakeholder Comments

EIM GHG Enhancement Revised Draft Final Proposal

Submitted by	Company	Date Submitted
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Southern California Edison (SCE) appreciates the opportunity to provide comments on the California Independent System Operator’s (CAISO) Energy Imbalance Market (EIM) Greenhouse Gas (GHG) Enhancement Revised Draft Final Proposal (Proposal), dated June 23, 2017¹. SCE supports the EIM, and any associated improvements that further increase the benefits of the EIM. As the EIM grows, it continues to bring many benefits, including overall GHG reduction² in the EIM footprint.

Given the growth of the EIM, SCE reiterates its position that the CAISO and the California Air Resources Board (ARB) should monitor and study the GHG impact related to secondary effects within a larger EIM footprint before adopting any solution. Based on the study, the CAISO, ARB, and stakeholders can decide whether a solution is needed. If and when a solution is needed based on the study results, inter-temporal netting should be considered as part of the solution. Such netting would recognize the significant investment that California has made in renewable resources within the state that when exported tend to reduce emissions outside of the state. Allowing netting over a reasonable period of time such as a year will allow EIM benefits to continue to accumulate at their maximum potential as they do today.

As the Proposal solely focuses on a two-pass approach, below SCE offers its comments on the two-pass proposal and its various elements.

1) Clarification is needed regarding the proposal of modeling ramping constraints as soft constraints in the first pass.

Among other things, the CAISO has changed its original proposal of relaxing ramping constraints in the first pass and has proposed to model ramp constraints as soft constraints³.

More details of such modeling should be provided, including what is considered as a soft constraint and how “soft” those constraints would be. References to “soft constraints” usually

¹ <http://www.caiso.com/Documents/RevisedDraftFinalProposal-EnergyImbalanceMarketGreenhouseGasEnhancements.pdf>

² The CAISO presented a study for the GHG impact of EIM during the first 6 months of 2016 and found a net reduction of 292,000 metric tons of GHG emissions.
http://www.caiso.com/Documents/EIMGreenhouseGasCounter-FactualComparison-PreliminaryResults_Jan-Jun_2016_.pdf

³ Page 16 of the Proposal, available at <http://www.caiso.com/Documents/RevisedDraftFinalProposal-EnergyImbalanceMarketGreenhouseGasEnhancements.pdf>.

mean it is a constraint that the CAISO will violate under certain circumstances. Since the first pass is fundamentally a pass to develop baseline accounting, it is difficult to understand a circumstance in which the constraint of ramping would be allowed to be violated. In general, the CAISO should maintain its model such that the model will reflect the reality to the extent possible to ensure accurate results. If the utilization of a “soft constraint” will result in significant under or over assessment of GHG emissions, it should be rejected. SCE asks for further information on how a “soft constraint” will work and what it means in order to evaluate the risk of significant under or over assessment of GHG emissions.

2) SCE supports the proposal to not implement this design in the Day-Ahead Market (DAM) at this time. SCE supports the concept of California supply under the design and requests a clarification regarding the treatment of a clean resource located outside California that is obligated to serve California load under the Proposal.

As stated in the Proposal⁴, the CAISO does not propose to implement the two pass solution in the DAM at this time. As recognized by the CAISO, additional market design enhancements are necessary when this solution is extended to the DAM. More importantly, it is prudent to assess whether the Proposal should be applied to the DAM under a regional expansion *after* gaining some experience on its performance in the EIM market.

SCE agrees with the CAISO and supports the concept of treating LSE-contracted resources as California supply under the proposal. If California load has paid to have a resource outside of the state available to serve its load, then the California load should get the full benefits – including the full GHG benefits - of that resource. SCE believes that the concept should be applied to any contract during any time period that obligates the resource to serve California load, regardless the type of the contract.

Under the Proposal, it appears that a California Supply resource will be allowed to serve EIM load in the first pass⁵. When a California Supply resource is allowed to serve EIM load in the first pass, it’s unclear whether such treatment would undo the intention of having the resource meet the obligation to serve California load. The CAISO should clarify how a California Supply resource can meet its obligation to serve California load under the Proposal. To the extent such obligation can’t be maintained under the Proposal, the CAISO should demonstrate that its Proposal would instead produce a superior solution (where the benefits that California load receives by allowing the

⁴ Page 3 of the Proposal: “The ISO is planning to implement the two pass solution only in the real-time market.”

⁵ Page 14 of the Proposal, “Example: A 100MW EIM Participating Resource designated as California Supply and has an energy bid curve up to its Pmax and a GHG bid quantity equal to 100MW. The resource is dispatched in the first pass at 70MW with a 10MW GHG allocation. The portion of the optimal dispatch that did not receive a GHG allocation (60MW) is deemed to be serving non-ISO load and is the GHG allocation reference for limiting the GHG allocation in the second pass. Therefore, in the second pass, the GHG bid quantity is limited to 40MW(100MW – 60MW”).

California Supply resource to be sold to EIM outside of California exceeds those from earmarking the California Supply resources as a California only energy purchase regardless of whether the California Supply resource is emitting or non-emitting).

3) The CAISO should plan another stakeholder meeting following a completion of the accuracy report. In its accuracy report, the CAISO should evaluate not only the accuracy of the Proposal, but also any impact to the market.

SCE supports the proposal to study the accuracy of the two-pass approach. SCE requests that the accuracy report, once completed, be made available to the stakeholders. As new information becomes available with the report, the CAISO should plan another stakeholder meeting to allow the stakeholders to weigh in before presenting it to its board.

In its accuracy report, the CAISO should study any impact of its proposal to market performance; including any impact due to potentially increased cases of DC solutions and the overall solution feasibility for the first pass during which EIM transfers are restricted. Since the first pass does not solve unit commitment, there is likely going to be a mismatch in unit commitment between the first pass and the second pass (particularly during Real Time Pre-Dispatch and Real Time Dispatch corresponding to the first interval of Short Term Unit Commitment). When new resources with no GHG bid (those not willing to sell to California) are committed in the second pass, the unit commitment can back down other resources, including those willing to sell to California, thus reducing imports into California, the impact of which should be evaluated. Last but not least, given the complexity of the proposal, it is worth analysis from a theoretical viewpoint for potential market impacts⁶, for which SCE believes that the DMM and the MSC may be valuable.

⁶ Other aspects of this proposal can be evaluated as well, such as how does it work in conjunction with other initiatives such as Contingency Modeling Enhancement, Remedial Action Scheme and Generation Contingency Modeling.