Southern California Edison
Stakeholder Comments

CAISO Energy Imbalance Market (EIM)
Final Proposal
Dated September 23, 2013

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Southern California Edison's (SCE) comments on the California Independent System Operator's (CAISO) Final Proposal for an Energy Imbalance Market (EIM) issued on September 23, 2013 (Proposal). SCE continues to support the development of an EIM. SCE shares the CAISO's goal to create a robust set of rules and processes for other balancing authorities to participate in a combined EIM that can result in operational and cost benefits to all parties. The CAISO should be commended in their effort to resolve numerous issues and present solutions in revised proposals. However, while progress has been made, SCE has several significant remaining issues and questions that need to be resolved to help ensure an economically efficient EIM. SCE continues to recommend a phased implementation approach to allow time to resolve these outstanding issues without delaying the initial EIM implementation. In the meantime, the CAISO should plan to run an EIM market for PacifiCorp by setting the EIM transfer capability between the CAISO and PacifiCorp to zero in both directions. This would allow time to resolve the remaining issues necessary for joint optimization.

SCE comments on the following issues:

- While SCE continues to support an EIM, the CAISO should develop a phased EIM implementation plan to allow more time to resolve numerous complex issues
- SCE continues to question the capability of convergence bidding in the EIM to work properly without uplift to CAISO load in the proposed EIM design
- The creation of a "California Bid Adder" creates a design that allows for price discrimination to California by EIM sellers
- Voluntary EIM participation may result in limited amount suppliers which could results in market power within an EIM Entity footprint. The CAISO must develop "EIM footprint" market power mitigation before implementing an EIM.

Lack of comments on specific issues here does not constitute endorsement of other elements in the Proposal.

1. **While SCE continues to support an EIM, the CAISO should develop a phased EIM implementation plan to allow more time to resolve numerous complex issues**

SCE continues to support the development of an integrated EIM with PacifiCorp. While much progress has occurred, there are still complex issues, as detailed herein, that need resolution. A phased process would allow material benefits to be obtained while offering more time resolve these issues needed to implement an integrated EIM. A phased approach would also allow for testing of all the processes unique to the PacifiCorp EIM footprint. SCE recommends that Phase 1 be implemented by setting the EIM transfer capability between PacifiCorp and the CAISO to zero in both directions, which would economically isolate the two areas.[1] Benefits for PacifiCorp would accrue as the CAISO would economically optimize the resources in their balancing authority. This would also allow the CAISO and PacifiCorp to ensure their systems are working as intended and any problems would not impact, or would have limited impact on, the current CAISO market. This would allow more time to resolve the complex issues of convergence bidding and pricing to reflect greenhouse gas (GHG) costs. The current approach runs the risk of significant delay if the FERC does not approve, or takes an extended time to approve or change, the pricing design for an integrated EIM. Phase 1 could be complete when FERC approves, and the CAISO develops and tests, the tariff rules needed to implement a full joint optimization. Moreover, a specific testing period for Phase 1 could be established as the minimum time the markets will run with the transfer set to 0 MW.

2. **SCE continues to question the capability of convergence bidding in the EIM to work properly without uplift to CAISO load in the proposed EIM design**

Convergence bidding was designed to converge day-ahead and real-time prices in the CAISO area. The CAISO continues to have a day-ahead market with just the CAISO footprint, while the real-time market will be the joint optimization of CAISO+ EIM

[1] In comments to the third revised Proposal, Pacific Gas and Electric (PG&E) recommended a phased in approach to EIM which would limit the interchange to 100MW, SCE's proposal is to set it to zero.

resources. The prices in the CAISO are likely to change when the EIM resources, loads and transmission constraints are added to the optimization. If predictable, this change can be exploited by convergence bidders, resulting in uplift charges to load. These uplift charges to load could be significant. SCE questions if attempting to converge two fundamentally different markets is the intended purpose of convergence bidding. .

Furthermore, under the current proposal only the CAISO load would be charged convergence bid uplift costs even though EIM could be the cause of the uplift cost.[2] This violates the cost causation principle and equitable allocation needs to be addressed in the Proposal.

While SCE supports the CAISO's proposal to allocate costs resulting from enforcing Real-Time constraints in PacifiCorp back to virtual bidders, while necessary, SCE questions the sufficiency of this approach. SCE has formally requested the Market Surveillance Committee (MSC) to issue an opinion on this issue. SCE will likely submit supplement comments once the MSC publishes its findings.

3. <u>The creation of a "California Bid Adder" creates a design that allows for price discrimination toward California and requires modification</u>

Because of California's greenhouse gas regulations, imports from GHG emitting resources that ultimately comply with California Air Resources Board (CARB) rules may have an associated GHG compliance cost. The original proposal created a "GHG bid adder" which determined the basis for an export allocation payment to cover the additional cost of GHG for an export to California. Instead, the current proposal now creates a "California Bidder Adder" completely detached from CARB compliance costs. That is, any resource, clean or emitting, can submit a bid and the only limit is that the bid be zero or greater and in combination with the energy bid cannot exceed $1000/MWh.

Moreover, the design institutes a tool that enables strategic bidding that can both impact California and PacifiCorp prices. For example, it is possible for hydroelectric resources to set the price of the allocation payment (even though they have no CARB compliance costs)

[2] This is uplift costs due to the exploitation of CAISO price differences due to the inclusion of EIM resources in real time. The proposal does address the issue of convergence bidding costs related to transmission constraints that occur in the EIM footprint.

for other generators while leaving the energy price in PacifiCorp unchanged. This is because they can split their pricing strategy between two bidding components. This market structure allows price discrimination toward California, as a this hydroelectric unit can receive two difference prices, one for PacifiCorp and another for California, while their production costs and delivered products are identical. In addition, load is harmed as it reduces the congestion revenues that are allocated back to load, but are instead given to generators via the export allocation payment. The impact of this California Bid Adder and the resulting potential for price discrimination is economically inefficient and, to our knowledge, this scheme does not exist in any other FERC locational marginal price (LMP) market.

While a highly competitive EIM might limit the ability of a producer to engage in price discrimination, participation in the EIM is voluntary so it is possible that there are a limited number of EIM participants.[3] With limited completion, SCE believes monopoly or oligopoly behavior is structurally possible in the EIM footprint, and coupled with the CAISO's California Bid Adder proposal, in light of inadequate EIM footprint-wide market power mitigation would enable price discrimination.

The California Bid Adder allows a producer to set two different prices even when their costs of making sales are identical. If this design is somehow an improvement over the current bidding and pricing structures established in all other FERC LMP markets, then the CAISO logically would have advocated specific bid adders between and among all balancing authorities, such as CAISO, PacifiCorp East, and PacifiCorp West. As the EIM participation grows, additional bid adders would be added. Notably, the CAISO **is not** recommending this generalized Bid Adder approach. SCE agrees – bid adders are not a desirable design, and as a result, their use should be limited only to very specific circumstances in which they are demonstrably necessary

But for CARB rules that may place legitimate costs on certain resources, SCE does not believe that such a Bid Adder scheme would be necessary nor would one have been contemplated. The bid adder was developed for the specific purpose to recover GHG costs, it should not be used for other purposes. But instead of narrowing the impact and use of this device to specific and limited transaction, the CAISO has instead proposes to open the flood

[3] PacifiCorp has indicated that less than 10 parties have expressed interest in EIM participation. Actual participation is likely to be lower as not all parties expressing interest will be able to participant in EIM.

gates and introduced this brand new market and price formation tool to any resource in the EIM. And we note, the CAISO proposed asymmetric rules such that this novel devices is only available to EIM generation, and not California generation. SCE objects to the scope of this proposal, and without additional safeguards and restrictions we find it probable FERC will find it unjust and unreasonable. The reality of additional production costs associated with California GHG program should be recognized, but the current proposal goes far beyond addressing this limited issue. Given the sole justification for introducing the adder was because of a **cost**, its application should be limited to reflecting actual **costs**.

In order to make the GHG proposal reasonable, SCE recommends the following:

- Either return to the initial proposal in which the CAISO will insert the adder based on estimates of actual GHG compliance costs, and only for units that have compliance obligations, or:
- Resources submit a $/metric ton bid subject to a bid range between zero and 150% of the GHG index price
- Limit the GHG bid to one value ($/metric ton) per day per resource
- Only those resources registered with CARB as an emitting resources and demonstrating a compliance obligation are allowed to submit a bid adder

In response to SCE's prior comments, the CAISO stated that such a recommendation is burdensome and administratively costly.[4] SCE notes that the CAISO already collects this information and uses similar calculations during Local Market Power mitigation. SCE's proposals are reasonable as they allow sufficient flexibility for resources subject to a real compliance cost to represent such costs and some flexibility in managing bids. Furthermore, bid adders are not tied to a specific GHG values or inserted by the CAISO, but eligible EIM sellers can submit values within a reasonable range.

Without additional safeguards and restrictions on who can submit the California Bid Adder, and limits on the values used in this adder to link bids back to costs, SCE opposes the CAISO proposed bidding and EIM price formation methodology.

[4] http://www.caiso.com/Documents/StakeholderCommentsMatrix-EIM-ThirdRevisedStrawProposal.pdf page 62.

4. Limited EIM participation and bidder concentration may result in market power of an EIM Entity footprint – the CAISO must develop additional market power mitigation

The EIM is voluntary both as an EIM participating resource and in the actual submission of supply bids into the EIM market. Moreover, EIM "footprints" may typically represent and existing balancing authority with high concentration of generation ownership, and limited transfer capability into the EIM footprint. As a result, there may be few suppliers in the EIM market, or a single suppler may own a majority of the resources in the EIM Entity.[5] If there is a single EIM participant, then they would have the unilateral ability to set prices within the EIM footprint once import capability is exhausted[6] SCE notes that this may be a typical case for any other balancing authority that decides to join the EIM. Clearly this is a structural problem with a significant potential to create "EIM market power" for the EIM footprint. However, the current CAISO proposal only tests for Local Market Power. This situation must be addressed prior to moving forward with the EIM.

In general, the CAISO must include a structural test for "EIM Market Power" based on the concentration of supply and size of suppliers within the EIM. To the extent the EIM footprint is not competitive, market power mitigation must be applied to all resources within the EIM. Moreover, given the voluntary nature of both participation and bid submission in the current EIM design, not only must the CAISO consider participating suppliers, the tests must also consider the degree to which participants present bids to the market. Typically, when market power exists, bids of such suppliers should be mitigated to some estimate of cost before the ISO should allow them to participate in price formation.

Further, SCE notes that PacifiCorp proposes to use the EIM LMP for various settlements within its footprint.[7] SCE will thus have direct exposure to these LMP prices as a result of generator contract rights held within PacifiCorp. Thus, the CAISO must ensure the design

[5] Ventxy Velocity data indicates PacifiCorp owns 56% of the resources in PacifiCorp East and West. Furthermore, PacifiCorp has indicated that less than 10 parties have expressed interest, but not a commitment, in EIM participation.
[6] SCE does not suggest PacifiCorp would engage in monopolist pricing, however, given that they may be the only provider they will, by default, set prices in their EIM footprint.
[7] http://www.oasis.oati.com/PPW/PPWdocs/PacifiCorp_EIM_Entity_Proposal_Sept_2013.pdf

produces just and reasonable prices, not only within California, but also within the new EIM footprint.

Until the CAISO implements effective EIM market power mitigation, the EIM structure should not move forward.