

Southern California Edison
Supplemental Comments

Energy Imbalance Market
Revised Straw Proposal
issued May 30, 2013

| Submitted by | Company | Date Submitted |
|--|----------------------------|----------------|
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In comments submitted June 18, Southern California Edison (SCE) recommended that CAISO allow parties to comment on other stakeholder’s recommendation before the next revision to the CAISO’s proposal.¹ SCE hereby submits supplemental comments on recommendations submitted by stakeholders² regarding the California Independent System Operator’s (CAISO) Design Straw Proposal and Issue Paper (Proposal) for an Energy Imbalance Market (EIM) issued on May 30, 2013.³

SCE comments on the following topics submitted by stakeholders:

- Schedule lacks sufficient time and is moving too fast.
- Any EIM related regulation established by California Air Resource Board (CARB) need flexibility as the greenhouse gases (GHG) proposal is not finalized.
- CAISO needs and should provide detail on a process to resolve transmission pricing in EIM.
- Uplifts and allocation methodology need careful attention to ensure equity.
- The role of Resource Adequacy for EIM Entities requires more discussion.
- Impacts of the minimum shift optimization (MSO) on the EIM market require discussion and clarification.
- Contrary to some assertions, EIM benefits market efficiency for load, generation and financial stakeholders
- Market power mitigation is essential.

¹ http://www.caiso.com/Documents/SCE_Comments-EnergyImbalanceMarketRevisedStrawProposal.pdf. Page 2.

² <http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergyImbalanceMarket.aspx>.

³ <http://www.caiso.com/Documents/RevisedStrawProposal-EnergyImbalanceMarket-053013.pdf>. In addition, the CAISO held a meeting on June 6, to review the proposal with the following presentation: http://www.caiso.com/Documents/Agenda_Presentation-EnergyImbalanceMarketJun6_2013.pdf

1. Schedule lacks sufficient time and is moving too fast

SCE is supported by Balancing Authority of Northern California (BANC), Bonneville Power Administration (BPA), Portland General Electric (PGE), Powerex, Sacramento Municipal Utility District (SMUD), Xcel Energy, in expressing concern that the time period to provide comments is too limited or the implementation schedule is too fast.⁴ SCE agrees with BPA, PGE, and Powerex:

- “BPA hopes that the CAISO will be open to discussing a longer evaluation period with stakeholders who may need additional time to review the proposal, conduct analysis, and provide comments that will help identify potential reliability impacts to systems in the west.”
- “PGE is concerned that certain of the CAISO’s policy choices presented so far in the areas outlined below have not received sufficient consideration, given their potential significant impact to the region, as a result of the accelerated timeline.”
- “In this context, Powerex is increasingly concerned that the CAISO’s stakeholder process timelines are overly aggressive, potentially subverting the robust stakeholder process that this initiative clearly requires. It is far more important to design and execute a just and reasonable EIM than to have a quickly implemented EIM that did not consider important issues and potential side effects.”

2. Any EIM related regulation established by California Air Resource Board (CARB) need flexibility as the greenhouse gases (GHG) proposal is not finalized

SCE understands that the CAISO has been in discussion with CARB about the treatment of GHG compliance obligation in the EIM proposal. Furthermore, CARB is in the process of creating regulatory language referencing the EIM⁵. SCE cautions that any CARB regulations should have sufficient flexibility as the treatment of GHG issues is not final in the EIM Proposal.

Moreover, we note that several parties noted that GHG discussions merit additional consideration. SCE reiterates its recommends that the CAISO offers an alternative “flow based” proposal per our original comments⁶.

⁴ BANC page1, BPA page 1, PGE page 1, Powerex page 1, SMUD page 1, Xcel page 1.

⁵ <http://www.arb.ca.gov/cc/reporting/ghg-rep/revision-2013/mrr-june-workshop2013-1p.pdf>. Page 11

⁶ SCE pages 2-5.

3. CAISO needs and should provide detail on a process to resolve transmission pricing in EIM

SCE agrees with PacifiCorp's recommendation⁷ to remove from Section 3.10, page 47 in the Proposal the following statement: "In any event, any EIM transmission service rate should be the same across all EIM Entities" As mentioned in SCE's comments, the establishment of a single transmission rate in the CAISO area took years and this requirement could delay EIM implementation. There may be other options that meet the guiding principles listed on page 50 of the Proposal that do not require a uniform rate across multiple EIM Entities.

Multiple parties have commented that transmission pricing should either not be free at the start of EIM or free transmission should be temporary and only if there is limited transmission available for EIM.

The CAISO should commit to a process to resolve the issues. The process might include triggers (e.g. "Once we anticipate more than 200MW of EIM transmission...", or have a specific time-line (e.g. CAISO will address this beginning 'insert date').

4. Uplifts and allocation methodology need careful attention to ensure equity

The participation of an EIM Entity in the combined real time market has impacts on various components of combined CAISO + EIM which includes convergence (virtual bidding, yet some parties, such as PacifiCorp claim their participation will not expose "CAISO customers to cost associated with changes between day-ahead and real-time schedules."⁸ This is incorrect. The real time market will include EIM Entities and therefore their presence will impact the locational market prices (LMP) and nodes within the CAISO as economically the two areas will be connected in real-time. Moreover, the addition of the EIM in real-time appears to fundamentally change the transmission market model when compared to the DA market. This 'model change' will likely result in uplifts as convergence bidders 'bet against the CAISO'. Thus, irrespective of PacifiCorp's participation in virtual bidding, the EIM structure will likely create additional uplifts.

Furthermore, PacifiCorp claims that as they do not engage in virtual transactions they should be absolved from any virtual bid uplift costs.⁹ This reasoning is flawed and incorrect

⁷ PacifiCorp, page 22.

⁸ PacifiCorp page 5.

⁹ PacifiCorp page 5.

for two reasons. First, while PacifiCorp as a company may not engage in virtual bid transactions, entities within their balancing authority may engage in virtual bids in the CAISO market. Second, virtual bidding impacts all LMPs in the combined CAISO and EIM market, so no one is isolated from the benefits or cost of virtual bidding, so all participants should receive a share of the uplifts. As SCE mentioned in earlier comments, convergence bidding appears to be incompatible with the current EIM design and uplift allocation methodology.¹⁰ This requires careful resolution before the start of the EIM.

Six Cities make a good comment regarding assignment of imbalance costs as “it is unreasonable to deny LSEs within the ISO BAA the ability to adjust their Day-Ahead load schedules so as to minimize deviations if other market participants are able to make such adjustments so as to manage their exposure to uplift costs associated with deviations.”¹¹ This calls in to question the appropriateness of the CAISO’s proposed methodology.

SCE agrees that the identification of uplifts and the proper allocation methodology needs careful review to ensure the assignment is reasonable and equitable. As a result, we withhold final comment on our position on the CAISO’s uplift proposal at this time.

5. The role of Resource Adequacy for EIM Entities requires more discussion

Nine¹² stakeholders have brought up the issue of resource adequacy and the need to ensure an EIM Entity has a process to ensure sufficient resources to meet forecast load, including any need for flexibility needs. Protocols need to be established to prevent entities leaning on the EIM for capacity and flexibility. The need for additional “RA” requirements for EIM entities also requires further discussion.

6. Impacts of the minimum shift optimization (MSO) on the EIM market require discussion and clarification

SCE has two concerns with the MSO. First, is the cost allocation of making a schedule feasible for the EIM. Second is that the MSO may still not resolve the problem of infeasible schedules.

Some parties bring up an issue that the result of the MSO operation could make an LSE imbalanced within an EIM Entity. They are correct that this creates cost allocation issues.

¹⁰ SCE page 5-6.

¹¹ Six Cities, page 3.

¹² SCE, BANC, BPA, Calpine, PG&E, Powerex, Six Cities, SMUD, WPTF, Xcel Energy.

However, the cost to get a schedule feasible must remain with each EIM Entity. Each EIM Entity needs to set up a process with their participants on how these costs will be allocated.

SCE is concerned that due to differences between the MSO network model and the real-time network model (CAISO + EIM) that infeasibility may still be a problem. If a schedule appears feasible in the MSO process, but suddenly becomes infeasible in real-time market by the addition of the EIM Entity, uplift costs are created. (That is, the MSO may find no infeasibilities, but once “connected” to the full market, flows may change due to the difference in modeling between the MSO and the EIM, and such model changes can create infeasibilities.)

In addition, if the design creates systematic difference between the MSO and EIM models, this will allow for gaming such as the ‘DEC game’ that was a problem in the prior market structure. This is a critical issue. Stakeholder should fully understand if and what difference may exist between the MSO and the EIM to ensure the structure will not create gaming issues.

7. Contrary to some assertions, EIM benefits market efficiency for load, generation and financial stakeholders

Morgan Stanley, comments that, “We start from the rebuttable presumption that the EIM ultimately exists for the benefit of metered load, and therefore said load should bear the uplift costs.” This is incorrect. The EIM market will benefit load and generators by maximizing both consumer and producer surplus. In addition, those with financial interests can engage in convergence (virtual) bids and should also benefit from more efficient price outcomes. Therefore the EIM is designed to benefit all participants and thus their presumption is incorrect.

8. Market power mitigation is essential

Powerex recommends that Market Power Mitigation should not occur outside the CAISO footprint.¹³ SCE strongly disagrees. Market power monitoring and mitigation is essential to a properly functioning efficient market, especially since the EIM will be fully co-optimized and coupled with the CAISO’s real-time energy markets. Otherwise, market power in the EIM will distort prices in the CAISO core market.

¹³ Powerex, page 18.