

Energy Imbalance Market Design Straw Proposal

Submitted by	Company	Date Submitted
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Summary

Powerex is pleased to have this opportunity to provide these comments in response to the Energy Imbalance Market (EIM) Design Straw Proposal (“Straw Proposal”) published on April 4, 2013.

Powerex supports the concept of an EIM in Western bilateral markets. However, Powerex believes that the design of an EIM, particularly one that is layered on top of an existing OATT framework, requires a careful consideration and thorough vetting with stakeholders and industry experts due to the potential for significant unintended consequences. Powerex understands that the CAISO/PAC EIM is in its preliminary design stages but, given the aggressive timelines that CAISO has proposed, asks that greater detail and clarity are given on each of the specific design components in the coming weeks.

At this time, Powerex would like to comment on what it feels are the three most critical aspects of the EIM Design. These are:

1. Governance;
2. Resource Sufficiency; and
3. Transmission Service.

Governance

Powerex is of the view that any EIM should operate under a governance framework that is independent from the CAISO’s current governance structure. For this reason, Powerex would prefer the “Market Operator Model” as it understands this is an independent body from the current CAISO board.

Powerex understands that the Market Operator Model will require additional costs but believes these costs are well justified to ensure that the interests of all regions, and interests of all parties, in the WECC are equally represented.

Resource Sufficiency

Powerex strongly supports the CAISO in its inclusion of a Day Ahead and Hour Ahead resource sufficiency requirement for all EIM participants. Powerex has several comments on this requirement.

First, in contrast to eastern ISOs/ RTOs, the western interconnect currently has a significant gap in its reliability framework that enables participants to be resource insufficient in the Day Ahead and/or Hour Ahead timeframe. There simply is no robust framework in the WECC that ensures that each participant has sufficient incremental and decremental capacity in the Day Ahead and Hour Ahead timeframes to meet their potential range of net load obligations, including firm exports. An EIM should not exacerbate this reliability gap, by enabling participants to “lean” on an EIM for incremental or decremental capacity; the CAISO/PAC EIM, as currently defined, is an energy-only market.

Second, in Powerex’s view, this existing reliability gap is becoming more concerning, as:

- (i) Source balancing authorities and/or transmission providers develop business practices that curtail firm exports as an economic alternative to being resource sufficient;
- (ii) Sink balancing authorities, including CAISO, continue to contemplate what reliability steps are necessary to address economic curtailments to firm energy imports, hoping in the meantime that such curtailments will continue to be manageable in size and will largely be uncorrelated to other curtailments;
- (iii) Market participants increasingly sell firm energy Day Ahead without sufficient capacity to support such schedules, hoping to fulfill the obligation at a later time; and
- (iv) New balancing authorities are contemplated across the interconnect to capture the economic opportunity of selling firm energy Day Ahead, supported only by prospective real-time imports/generation and/or relaxed balancing standards.

Third, this reliability gap is also an efficiency gap. Given the lack of transparency into the curtailment risk of each individual import schedule, some sink balancing authorities will carry a conservative level of resource sufficiency in an effort to protect firm load. This inevitably results in:

- i) Excess capacity being committed in the western interconnect Day Ahead and Hour Ahead most hours, by many sink BAs with firm load commitments; and
- ii) A remaining risk of insufficient capacity being committed in any one hour across the western interconnect.

A properly designed resource sufficiency requirement in the EIM needs to ensure that both sufficient and efficient levels of dispatchable capacity are carried in the EIM footprint to reliably meet firm load and firm exports each hour.

Fourth, it is important that the resource sufficiency requirement in the EIM be both in the incremental and decremental direction, as increasingly, over-generation is becoming a potential reliability concern. The CAISO’s proposal appears to appropriately require participants to meet their own over-generation conditions.

Finally, Powerex looks forward to significantly more details, including examples, on the calculation of resource sufficiency, including the level of confidence that is required in minimum and maximum load forecasts, variable resource forecasts, etc. Will it be based on P90, P95 confidence, etc.? How will the CAISO treat firm versus non-firm imports and exports?

Transmission Services and Compensation

Powerex believes the treatment of transmission, both for transactions within the EIM footprint (i.e. generators and load within PacifiCorp's region) and between the EIM entities and the CAISO, must be carefully designed to:

- i) Ensure reliable and efficient dispatch outcomes;
- ii) Recognize the key differences between the OATT framework (that will continue to exist in the PacifiCorp region) and the CAISO's RTO/ISO framework;
- iii) Provide appropriate price signals to ensure continued investment in PacifiCorp OATT transmission, by generators, loads, and wheel-through;
- iv) Provide appropriate price signals to ensure deliveries hourly and longer continue to occur ahead of the EIM market; and
- v) Respect existing PacifiCorp OATT transmission investments, including the principal that the congestion value of transmission paths should continue to flow to firm transmission rights holders on the PacifiCorp system.

With these key principles in mind, Powerex recommends the following approach for further discussion.

First, Powerex recommends that all transmission paths in the PacifiCorp grid be set with a floor congestion shadow price equal to PacifiCorp hourly non-firm OATT rate. Unlike in an RTO/ISO such as CAISO, uncongested transmission paths in an OATT framework attract non-zero tariff costs and it is critical that this key difference between the CAISO and the OATT be respected in the EIM design.

This ensures that EIM users (generators, load and wheel-through, including the CAISO) of the PacifiCorp transmission system pay the same rate as those participants that utilize the grid on an hourly basis under the OATT. The hourly non-firm rate is the most appropriate rate for the floor as it best reflects short-term transmission usage on a subordinated basis to higher priority OATT transmission rights.

Powerex believes this congestion shadow price floor is essential to ensuring that participants do not shift their forward, daily and hourly trading and scheduling activities into the EIM. This floor is also necessary to prevent EIM participants from uniquely avoiding funding of the PacifiCorp transmission system by shifting their activities into the EIM, increasing the funding obligations of the remaining PacifiCorp transmission rights holders. This floor would also ensure that PacifiCorp does not grant transmission service to its merchant, under the EIM, on a non-comparable basis to other market participants who continue to utilize and pay for PacifiCorp transmission under PacifiCorp's OATT.

Second, Powerex recommends a "sheltering credit" against such EIM transmission charges, at the same hourly non-firm OATT rate, for market participants with:

- i) Unused firm transmission – such transmission rights can generally be used on any uncongested PacifiCorp transmission path via redirect service under the

OATT, normally conducted on OASIS, and hence an automatic redirect of unused firm transmission rights should be “presumed” in the EIM via the existence of a sheltering credit.

- ii) Network loads – transmission rights can generally be purchased at no incremental cost for PacifiCorp network load customers under the OATT, and hence an automatic network transmission request should be “presumed” for network loads in the EIM via a sheltering credit applicable to any change in a participant’s network load(s), subject to any contractual limitations.

Note that sheltering credits may have to be reduced to less than on a one-for-one credit for each MW of EIM flow to accommodate the situation where both a load and a generator are eligible for a sheltering credit.

Third, Powerex recommends substantial further discussion occur on the disbursement of congestion revenues above the floor described above. Powerex believes there are potential alternative as follows:

- i) EIM congestion revenues from increased use of transmission in the EIM are allocated back to firm rights holders on the respective PacifiCorp transmission path, consistent with the underlying principle of CRRs. Under this scenario, users of congested transmission lines on the PacifiCorp system, essential pay PacificCorp transmission customers with unused firm transmission rights on the respective path the market value for using the transmission in real-time, as determined by the EIM.
- ii) Costs of relieving real-time congestion associated with Day Ahead and Hour Ahead schedules (i.e. due to loop flow and /or transmission derates) are charged to PacifiCorp’s transmission customers more broadly, consistent with the re-dispatch framework under the OATT.

Powerex looks forward to further discussions and details as the CAISO’s develops its EIM Design into a Final Proposal.