FERC Order 764 Compliance
15-Minute Scheduling and Settlement
Straw Proposal – Technical Workshop

Submitted by	Company	Date Submitted
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Powerex is pleased to have this opportunity to provide these comments in response to the FERC Order 764 Compliance 15-Minute Scheduling and Settlement Straw Proposal Technical Workshop ("Workshop") held on December 18, 2012. The Workshop received significant stakeholder discussion during the stakeholder call on several issues.

Powerex offers the following comments in addition to comments submitted earlier by Powerex in this stakeholder initiative and the previous related stakeholder initiatives.

Transmission Reservation Process and Settlement

Powerex is concerned that the CAISO's proposed approach to develop a transmission reservation process is unnecessary and will lead to significant unintended consequences that will reduce market efficiency. These include reducing the availability of intertie resources to deliver intra-hour energy and/or stranding intertie transmission capacity.

Powerex believes the need for the CAISO to limit transmission rights on its interties in real-time should be for the sole purpose of deciding which e-tags to curtail. This should be limited to the instances where the CAISO has total implemented e-tags at its hourly check-out process with greater scheduled transmission rights than available CAISO transmission capacity for any 15-minute interval.

Powerex believes the CAISO should consider the following approach:

1. Accept and approve all e-tags that have transmission profiles that do not exceed the resource's respective energy <u>bids</u>, independent of whether or not such resources have energy awards in the first 15-minute interval; and

2. If the CAISO has aggregate e-tagged transmission profiles which exceed the CAISO's available transmission in any 15-minute interval, as determined at the hourly check-out process, the CAISO will reduce those e-tags which have transmission profiles that exceed the energy award quantity in the first 15-minute interval, based on the least economic, first-out principle.

This approach will ensure that the CAISO accepts the maximum e-tagged transmission possible; thereby enabling energy dispatches in future intervals - while at the same time not pro-rata curtailing e-tagged energy awards in the first interval to enable potential energy awards in a future interval from a different resource that may or may not be dispatched. It is essential that the CAISO allow resources that may be called upon to deliver energy in a future interval to e-tag their transmission profile prior to the hourly check-out process, as necessary on neighboring transmission systems, provided the transmission profile does not cause the CAISO to exceed CAISO transmission limits.

This approach is also consistent with the CAISO's current approach to e-tagging dynamically scheduled intertie resources. Any requirement to acquire limited CAISO transmission rights prior to submitting e-tags will create substantive seams issues and has the likely undesirable outcome of broadly restricting participants' ability to provide 15-minute energy in future intervals and/or to provide dynamically dispatched energy.

The CAISO also highlighted that one of the purposes of the transmission reservation process is to facilitate intra-hour changes in VER deliveries on the interties, including on congested interties, by allowing for procurement of transmission rights ahead of the hour. However, Powerex believes that enabling VER deliveries that change in quantity intra-hour can be most efficiently accomplished by encouraging DEC bids from system resources that can be dispatched intra-hour. This can be achieved with the following enhancements:

1. Enabling participants to select availability for 15-minute CAISO dispatch for intertie system resources, as contemplated in this stakeholder process

2. Enabling a new, once-in-the-hour CAISO "dispatch down" product on the interties, whereby participants could identify their willingness or ability to be curtailed for the balance of the hour and settled at the real-time price, when the CAISO expects that the resource will be in-merit for such dispatch for the balance of the hour.

3. Expanding the CAISO's current RUC process to include interties, and enabling a new RUC-down product on the interties to accommodate over-supply conditions.

4. Reviewing and modifying the CAISO's CRR clawback rule. The current rule discourages DEC bids, under clearly identifiable "false positive" conditions.

Convergence Bidding on the Interties

Powerex supports the CAISO's approach to settle all convergence bids, both internal and on the interties, at the applicable IFM and 15-minute market LMPs. Further, Powerex believes the TR proposal would substantially increase the risk and complexity of re-introducing convergence bidding on the interties.

Powerex refers the CAISO to its previously submitted comments in which Powerex discusses issues that the CAISO needs to address before reinstating convergence bidding on the interties. To summarize these comments, Powerex believes that prior to reinstating convergence bidding on the interties the following issues must be addressed:

1. The CAISO reasonably expects that convergence bids will efficiently converge prices, increasing the efficient commitment and dispatch of physical resources.

2. The CAISO and DMM do not have any significant concerns that there is a potential for substantive undesirable outcomes.

3. The CAISO develops and enforces rules that clearly delineate virtual bidding activities (explicit and implicit) from physical activities, and applies costs consistent with cost causation (i.e. Day Ahead e-tagging requirement, appropriate disincentives for failures to deliver on physical awards, energy product type clarity and enforcement, etc.)

4. The CAISO expands its RUC market process to include RUC for non-RA system resources on the interties, and creates a new “DEC” RUC product to complement its existing “INC” RUC product, with appropriate allocation of costs, consistent with cost causation (including cost allocation to virtual bidding participants, VERs that displace firm resources, metered demand, etc.).

5. The CAISO addresses the dual pricing constraint in a manner that is symmetric in pricing, and treats virtual and physical bids as fully fungible.

In order to accommodate convergence bidding on the interties, Powerex notes that there must be a single set of prices for settlement on the interties so by necessity there can be no bid cost recovery. A bid cost recovery (“BCR”) mechanism would produce multiple prices and create uplift.

Addressing dual-constraint issue by day-ahead tagging limits

As Powerex has stated in previous comments, Powerex strongly believes that “Option A”, is not a viable option and supports the CAISO in removing Option A as a solution to the dual-constraint issue.

Powerex continues to believe that its modified proposal to the dual pricing constraint presented in the last stakeholder process should be more thoroughly reviewed and discussed.

Nonetheless, Powerex believes that the CAISO approach to accepting a limited quantity of e-tags in the IFM may be workable, but only under circumstances where such identified awards that are allowed to e-tag are also required to e-tag. The following problems will arise if the CAISO continues to give participants the option of e-tagging IFM physical awards after the day ahead scheduling period:

1. Physical participants will continue to experience challenges and costs associated with “counter-flow” transmission check-out issues in the day ahead market – resulting from the same physical transmission limitation issues that are at the core of the dual constraint problem; and

2. The CAISO will be tacitly encouraging implicit virtual bidding and the by-passing of its own RUC process for reliability (and associated cost allocation) leading to substantive market inefficiencies with the potential for increased reliability risk.

The appropriate mechanism for encouraging additional liquidity in the IFM markets, that represents future real-time supply (that may or may not show-up) is to require such supply to be offered as virtual supply in the IFM, followed by physical supply in real-time. This ensures that the CAISO can properly identify such supply as virtual in the IFM process, and procure additional RUC to protect reliability. The resulting costs allocated to the respective participant, consistent with cost causation. This also sends the appropriate price signal to participants that do commit physical intertie resources in the day-ahead timeframe to continue to do so, particularly under conditions of tight supply (i.e., higher RUC clearing prices).

Settlement rules or penalties to incentivize following dispatch

Powerex refers the CAISO to its previous comments where it has provided extensive discussion on this issue. In short, Powerex continues to support “worse-of” pricing to eliminate any incentive for non-delivery of physical awards, except under acceptable conditions as defined by the energy product type. Furthermore, Powerex believes the CAISO should re-define its energy product types as follows:

1. Firm energy – delivery will only be reduced due to:

    a. Transmission curtailment.

2. Unit contingent energy – delivery will only be reduced due to:

    a. Transmission curtailment, or

    b. A qualifying contingency event that allows the CAISO to deploy its contingency reserve pool.

3. Variable resource contingent energy – energy may be reduced or increased due to due to:

    a. Transmission curtailment,

    b. A qualifying contingency event that allows the CAISO to deploy its contingency reserve pool, or

    c. Forecasted change in output of the resource outside of the participants' control or discretion.

It is imperative that the CAISO not design its market to allow for intertie deliveries that may be changed at the participants' discretion after the close of the hourly bidding deadline, without ensuring that the participant bears the full cost to the market of such changes. More specifically, providing a discretionary opportunity to change delivery quantity, after the bidding window has closed, creates very troublesome opportunities for participants to change their delivery quantities based on their own portfolio's net position and prevailing CAISO real-time prices. This can lead to substantive market efficiency and reliability consequences. Therefore, Powerex strongly recommends that sufficient clarity on energy product types as well as appropriate enforcement measures be instituted, including appropriate incentives for failures to deliver.

In addition, Powerex strongly recommends that entities wishing to deliver variable resource contingent energy (i.e., for VERs whereby the source Balancing Authority is not carrying sufficient balancing and/or contingency reserves to meet the Firm or Unit Contingent requirements), should be required to submit updated 15-minute quantities based solely on the CAISO's forecasted change to the resources output.

Powerex believes it is imperative that uninstructed deviations that occur for reasons outside those defined under the applicable energy product type receive pricing that effectively discourages such behavior. Perhaps the worse-of the 5-minute, 15-minute or IFM price should be applied to any such deviations, ensuring that such failures are not profitable. Powerex believes that poorly defined or enforced energy product types, and insufficient incentives to encourage delivery on physical awards, will continue to produce unintended consequences in CAISO markets. These include increased uplift charges to metered demand due to physical re-dispatch in real-time and systemic price divergence, with the potential for reliability consequences.