



Stepped Constraint Parameters Issue Paper

Bonneville Power Administration Comments

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Bonneville Power Administration (BPA) appreciates the opportunity to provide California Independent System Operator (CAISO) comments on the Stepped Constraint Parameters Issue Paper (Issue Paper). The changes CAISO has proposed in the Issue Paper are significant changes to the Energy Imbalance Market (EIM) design BPA has some concerns about the proposed changes because they move away from prices set by the market to administrative prices. Further, the proposal may risk scenarios where an EIM Entity's economic gain may take precedence over system reliability BPA would also appreciate more information on the rationale or current market issues that these proposals intend to mitigate.

Transmission constraint relaxation parameter

CAISO proposes to create separate transmission constraint relaxation for high voltage (230kV and greater) and low voltage (115kV and lower) transmission constraints. CAISO proposes a tiered relaxation when constraints less than 2% of the original limit are relaxed at a lower price. Specifically, CAISO proposes to relax high voltage transmission constraints at \$750 for less than 2% of the original limit and \$1500 for 2% or more; and for low voltage transmission constraints at \$500 for less than 2% of the original limit and \$1000 for 2% or more of the original limit.

Bonneville has concerns that a relaxation parameter less than the bid cap may result in CAISO setting prices administratively when additional economic offers are available to resolve the constraint. It appears the CAISO is favoring administrative prices instead of allowing the price to be set by the market without sufficient support or rationale. CAISO should accept all economic offers prior to setting price caps administratively. **Shift factor effectiveness**

threshold

The Issue Paper does not articulate benefits or rationale of the proposed change to lower the effectiveness factor from 2% to 0.2%. In the absence of more information on the financial and reliability benefits of this proposal, it would be hard for BPA to support this change, because the proposed change will increase the time the market engine requires to reach a feasible solution and may increase the need for an undesirable DC solution. Instead of lowering the effectiveness threshold, BPA suggests shortening the timeframe for submitting base schedules. Submitting base schedules closer to real time would result in more accurate schedules and less imbalance caused by long lead time scheduling practices. A shorter timeframe for the market engine would better integrate a wider footprint and take advantage of the increase in forecast accuracy from the current T-75 timeline to T-45 and T-30.

Stepped relaxation of the power balance constraint

BPA has been concerned with the frequency of historical Power Balance Constraint violations in the EIM and appreciates the intent of market design changes to reduce this frequency. However, BPA has concerns about whether further relaxation of constraint parameters address the root cause of constraint violations, and possible consequences of a litany of market changes on other areas in the market.

To support its position on revising the power balance constraint, CAISO points to other co-optimized markets using ancillary service bids. BPA does not believe these comparisons are accurate for two reasons. First, the specific example provided in the issue paper includes three economic offers with sufficient offer quantity to resolve the power balance constraint (PBC), but CAISO proposes to displace the highest priced bid with a pre-defined stepped tier at a significantly lower price than the bid. Any power balance constraint relaxation parameter should be priced according to the available economic bids. The Issue Paper does not contain sufficient explanation of why it is appropriate to use reserves held to meet reliability standards when additional economic bids are available to relieve the constraint. The concept of using reserves to serve load before exhausting all the economic bids available is not an appropriate use of reserves and does not advance the notion of efficient and accurate market outcomes. The proposal would move away from market based prices and towards administratively set prices. This proposed change removes market based incentives for market participants to accurately identify and help the CAISO and the EIM Entities resolve the power balance constraint. Second, CAISO compares the EIM, which is a voluntary displacement-only imbalance market, to the fully optimized markets of the Midwest Independent System Operator (MISO) and New York Independent System Operator (NYISO). Fully optimized markets such as MISO and NYISO are fundamentally different than the EIM, and are not accurate comparisons. The CAISO cannot apply the same principles from a co-optimized market that was sufficient at the system level but deficient in specific zonal pockets to use ancillary services to relieve a power balance constraint in the displacement-only EIM.

As an alternative to the proposal presented in the Issue Paper, BPA recommends CAISO and EIM Entities move forward with a stakeholder process to enable external EIM bids from non-EIM participants at EIM trading points. Enabling intertie bidding for the EIM would be a more equitable, more easily implemented, and more effective solution to the problem posed by the issue paper as opposed to administratively imposed price caps. BPA recognizes that there are additional issues with allowing external bidding to be considered, but the best way to find an equitable solution that adds depth to the EIM market may be to advance a stakeholder process.

In addition, it is unclear how contingency reserves would be treated under CAISO's current proposal. In the Available Balancing Capacity (ABC) tariff revisions, CAISO appropriately restricted usage of contingency reserves; however, no such restriction is included in the Stepped Constraint Parameters issue paper. It is unclear what restrictions, if any, the CAISO intends to include on the use of contingency reserves in the stepped relaxation of the power balance constraint. Further, if ABC tariff revisions have substantially reduced the frequency of Power Balance Constraint violations, BPA would question to what extent there is a need to further relax constraint violation prices which may provide very marginal benefit while mitigating economic bids. BPA would like more information on the potential root causes of Power Balance Constraint violations in EIM participants territory and greater transparency regarding the problems these proposals aim to solve.

EIM transfer limit when resource sufficiency evaluation is failed.

BPA is concerned that any waiver or relaxation of resource sufficiency standards may undermine the EIM market design and jeopardize reliability. A substitution of the EIM transfer freeze for an administrative penalty price risks making

reliability an economic consideration and thereby eliminating current safeguards in the EIM design. BPA has concerns that the proposed change would result in additional costs to EIM Entity ratepayers in situations where the EIM Entity holds insufficient operating reserves to meet imbalance energy needs.

Lowering bid floor

BPA questions whether the proposal to lower the bid floor will result in the desired solution, which seems to be economic displacement of self-schedules at opportunity cost. As with other proposals, BPA has concerns that this proposal is addressing a symptom and not the cause, which BPA believes is related to a thin economic bid stack due to uncertainty regarding binding price and MWh flow in the real-time markets.

CAISO suggests that price asymmetry (a greater absolute value of the bid cap compared to the bid floor) is the cause of overscheduling demand in the Integrated Forward Market. , BPA would like to understand the causal evidence for this theory. BPA's observation is the predominance of Day Ahead Market schedules is due to observed bias that Day Ahead prices tend to be on average higher than real-time prices. This bias combines with the significant uncertainty about recovery of opportunity cost that market participants are exposed to in the hourly block and economic Fifteen Minute Market (FMM) horizons. In situations where the Hour Ahead Scheduling Process (HASP) advisory price differs materially from the binding FMM price, units get committed or de-committed "economically" based on the HASP but may be operating out of the money after the fact, thus creating the risk that dis-incentivizes participants from submitting economic bids into the CAISO real-time markets.

Due to concern about the fundamental lack of liquidity in the economic real-time markets, BPA feels it is premature for CAISO to decide that lowering the bid floor would result in the desired solution of properly compensating economic bidders to decrement their schedules in real-time. The Flexible Ramping Product (FRP) changes may be sufficient to ensure the market functions effectively. BPA suggests that CAISO defer any further action on lowering the bid floor until the FRP is active and functioning for several months. If the market continues to experience oversupply, CAISO could directly address the alternative solutions to addressing forecasted oversupply conditions instead of simply lowering the Day Ahead and Real Time bid floor.