Sacramento Municipal Utility District Comments
to the
California Independent System Operator Corporation's
August 29, 2011
Renewable Integration Market and Product Review
Revised Phase 2 Straw Proposal

September 22, 2011

Introduction

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide these comments to the California Independent System Operator Corporation's (CAISO) August 29, 2011, Renewable Integration Market and Product Review Revised Phase 2 Straw Proposal (Straw Proposal). SMUD's comments are focused on several of the "mid-term enhancements," proposed for implementation in the 2013-2015 timeframe.

Comments

Section 7.2.4: Variable Energy Resource Availability (VER) Updates

By allowing VERs to update their schedules on either a rolling 5 or 15-minute basis, the CAISO hopes to "minimize the need for regulation by improving the accuracy of the real time dispatch." Straw Proposal at 35. The CAISO has also raised the possibility of allowing four separate 15-minute intervals to be scheduled at seventy-five minutes prior to the hour. *Id.* SMUD supports both of these concepts as potentially improving forecast accuracy. However, the manner of implementation is critical.

Allowing updated schedules will help only if the updates are in fact used to lessen exposure to deviation-driven charges and lower procurement costs (for RUC, regulation, flexi-ramp, spin, non-spin, etc.). To actually lower procurement costs, the CAISO market design must be such that the updated schedules are actually available and used at the time of the applicable procurement deciding market run. Or, as a possible lesser benefit, once it is proven that these updates do improve the generation forecasts, that fact must at least be incorporated into the CAISO's future criteria for determining the amount and types of ancillary services to procure in various instances. The closer to the actual generation interval that the CAISO can actually make use of the updated schedules to change its procurement decisions, the better. The updated timeline should be set at the shortest amount of time prior to the active generation interval as will still practically allow for the CAISO market run that uses the schedule update. This is primarily a software engineering goal.

As for allowing forecasts to become more precise by breaking the VER's hourly schedule into intervals of greater granularity, this concept clearly could only improve accuracy for those resources able to predict intra-hour output patterns and weather-related changes. However, for resource operators who determine that for *their* resource the benefits of granularity don't exceed the costs, there should be no mandated requirement to schedule different amounts within the hour. The CAISO has outlined two different interval periods, 5-minutes and 15-minutes. SMUD believes that 15-minutes is more practical and that in general the benefits of a 5-minute scheduling interval (versus 15-minutes) will not exceed the costs of the increased complexity.

Section 7.2.5: Decremental Bidding from PIRP Resources

SMUD supports the CAISO's proposal to allow a Participating Intermittent Resource Program (PIRP) resource to submit a decremental economic bid along with its hour-ahead PIRP self-schedule. In light of the CAISO's Phase 1 proposal to lower the bid floor (eventually to -$300 MWh), having the ability to include a decremental energy bid along with the self-schedule provides variable energy resources with an essential mitigation tool during negative price intervals. Moreover, it provides the CAISO with needed decremental bids during over-generation conditions. SMUD is concerned that this proposal may take some time to implement and has, in its Phase 1 comments, provided an intermediate option it calls Positive PIRP, which simply suspends PIRP during negative price intervals. SMUD believes this should be able to be implemented without significant changes to market systems and would provide an incentive for decrementing those PIRP resources able to do so during these periods of over-generation.

The CAISO further requested stakeholders to comment as to whether the accompanying decremental energy bid should be submitted for each hour or be a standing bid for a longer period. For simplicity SMUD prefers that the PIRP resource have the option to submit a standing decremental bid along with its PIRP self-schedule, since for many resources (such as wind) it is unlikely that this bid would be adjusted frequently.

Section 7.6.2: Intertie Pricing

The CAISO is considering two potential solutions to the issue of pricing at the interties. The first is to adopt the New York ISO approach (NYISO), which pays the real-time price to all participants at the interties, but guaranties production cost for imports. The second is to require energy at the interties to be settled at the CAISO real-time price and with those submitting whole hour schedules being settled as price takers (without any cost recovery) during off-peak periods. SMUD has concerns regarding both of these proposals for the pricing of interties.

The NYISO proposal, as described by the CAISO, settles imports and exports at "the time weighted average real-time price" of the relevant proxy bus. *Id.* at 39. Imports and exports, however, are settled differently. Imports into NYISO receive a production cost guarantee, exports do not. The rationale being that NYISO is a net importer and they need to "ensure the availability of import supply." *Id.* Conversely, "the scheduling of exports *does not benefit* New York power consumers and hence there is no basis for them to bear any uplift costs associated with exports." *Id*. (emphasis added). The CAISO accepts this logic and proposes a similar treatment for imports versus exports. SMUD believes this is discriminatory, is ill-advised and not in keeping with economic optimization principals. A one-sided policy such as this does nothing to promote overall market liquidity, which clearly benefits all California consumers.

Moreover, notwithstanding NYISO's purported logic, there is no information as to the impact such a policy has had on their markets. For example, there are times when additional legitimate loads, such as exports, can improve the revenue profile, and therefore the long-term viability, for generation units needed by an ISO at peak times. The fact that the NYISO has this policy doesn't make it a good idea. In fact, it appears to run exactly counter to the theory underlying the economic optimization model. The NYISO's policy would seem to hold that the NYISO market model *fails* to calculate an optimal solution when export bids are included. It would imply that either the optimal amount of exports is always zero MW, or that the model can never be accurate when exports are included. Neither assertion inspires confidence.

NYISO import and export pricing is based on weighted average real time pricing at proxy buses, not individual intertie scheduling points. Intuitively the NYISO approach would appear to result in less price risk. However, there are no details on this point. If the CAISO decides to pursue this path further, it should explain the relevance of this difference.

The CAISO has alternatively proposed that participants at the interties become price takers for only the off-peak hours, initially, in order to "give market participants and the ISO a chance to become comfortable with the concept during periods when price volatility is lower, and when the reliability risks of diminished imports is smaller." *Id*. at 40. SMUD does not believe that this will eventually translate to greater import participation on-peak (if the concept is later extended to on-peak hours). The price volatility during critical times on-peak will still be a big disincentive. It would be helpful to consider whether there might be any unintended consequences related to this proposal, since it would, at least under certain circumstances, shift more risk to the off-peak hours and may therefore alter some entities' bidding and scheduling practices. Moreover, despite being done with good intentions and despite being confined to off-peak hours, it is still simply a discriminatory policy, which puts importers and exporters at a disadvantage. While SMUD understands the problem that the CAISO is trying to solve here, we believe the proposed solutions are worse than the problem. It would be better to continue to brainstorm for a better intermediate term solution, while working toward the eventual solution of WECC-wide change to sub-hourly scheduling practices.

Conclusion

SMUD appreciates the CAISO's thoughtful efforts put forward in its Straw Proposal and looks forward to further stakeholder discussions.