



We appreciate the California Independent System Operator's (CAISO) efforts to evaluate and propose enhancements to the Day-Ahead Market (DAM). In order to fully understand the potential impacts of the proposed enhancements, we have several requests for clarifications and further details, as well as analyses which we detail below.

1) It would be helpful to have a quantitative understanding of the potential effects of the proposed enhancements. Could CAISO please provide market clearing data on a set of representative days given the current DAM scheduling, in comparison to simulations of the same days using the proposed DAM enhancements? If full CAISO Network Model simulations are not available or feasible, are there simulations on some simplified Network Model which nevertheless captures the essential details? Specifically, we would like to understand:

- a) The impact on LMPs in the DAM and the Real-Time Market (RTM) (ex: average prices, the distribution of prices and volatility; extreme prices, etc).
- b) Changes to net payments or charges in the DAM and RTM.
- c) The impact on the clearing of virtual volume (e.g. total volume on demand/supply).
- d) How often the proposed imbalance reserve constraints are binding, and the range of values of the shadow prices they imply.
- e) The approximate difference between the effects of these new shadow prices and the old bid cost recovery (BCR), especially on virtual bids.

2) Could CAISO please point us to a comparison between full settlements (the breakdown of the final financial settlements into their components) in the current market structure and the proposed one for virtual bids? Is there an analogue of Appendix D (the spreadsheet <http://www.caiso.com/Documents/APPENDIXD-ImbalanceReserveSettlementWorksheet.xlsx>) which can be used to evaluate virtual bids?

We appreciate the opportunity to comment and looks forward to working with the CAISO on this initiative and in expanding the DAM to the Energy Imbalance Market.

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