

PUGET SOUND ENERGY COMMENTS
DAY AHEAD MARKET ENHANCEMENTS INITIATIVE – JUNE 19, 2018 WORKSHOP
JULY 10, 2018

Puget Sound Energy (PSE) appreciates the opportunity to provide the following comments on the June 19, 2018 workshop on the CAISO's day-ahead market enhancements (DAME) initiative, and looks forward to CAISO addressing the comments and questions set forth below in the next iteration of the proposal.

COMMENTS

A core enhancement that CAISO is proposing in the DAME is a new flexible ramp product (FRP) in the day-ahead timeframe. PSE is generally supportive of designing the proposed day-ahead FRP in a manner that incorporates expected system conditions to the fullest extent possible.¹ Below please find a list of specific questions about this product with respect to the information that CAISO has provided to date.

1. Excel Solver Example and Settlements Example Questions
 - a. In the Excel solver example, resources need to submit economic bids for day-ahead FRP. If CAISO utilizes a demand curve to procure day-ahead FRP, will resources need to submit bids (price and quantity) for day-ahead FRP awards?
 - b. It would be helpful for CAISO to extend the Excel solver to cover all three markets (day-ahead, fifteen minute market, and real-time), and combine it with the settlements example spreadsheet.
2. FRP Requirement
 - a. As discussed during the workshop, a write-up that compares and contrasts the histogram and quantile alternatives to setting FRP requirements would be helpful. The write-up would be most useful if it: (1) discusses the advantages and disadvantages of the two alternatives in all three fundamental market design principles: efficiency, transparency, and simplicity; and (2) includes specific examples of illustrative wind, solar, and load conditions that will be

¹ PSE expects that there will be substantive discussion of extending this concept to entities outside of the CAISO balancing authority area (BAA) in a subsequent stakeholder process if CAISO considers extending the day-ahead market (DAM) to the energy imbalance market (EIM) footprint.

more accurately accounted for through the quantile methodology versus the current histogram methodology.

- b. Provide a detailed prototype in Excel format, with a small dataset similar to the presentation that shows the FRP requirement calculation using different approaches.

3. FRP Demand Curve

- a. How will CAISO calculate the demand curve for the day-ahead FRP? It would be helpful if the next iteration of the proposal contained a section that explicitly includes the demand curve in the mathematical formulation.