

Comments of Arizona Public Service Co.
Day Ahead Market Enhancements
Revised Straw Proposal dated April 11, 2018

APS appreciates the opportunity to provide comments on the April 11, 2018 Revised Straw Proposal for Day Ahead Market Enhancements. While APS is supportive of the CAISO's efforts to implement changes to improve grid reliability and incorporate new market design to manage grid challenges, APS has concerns with respect to certain aspects of the CAISO's proposal regarding (1) 15 minute EIM scheduling granularity, (2) the imbalance reserve product, and (3) regulation up and down categorization in EIM.

1. 15-Minute Scheduling in EIM

The CAISO proposes to move EIM base schedules from hourly scheduling to 15-minute scheduling in the day-ahead market. However, bids will continue to be submitted hourly and will be used for all four 15-minute intervals (although the awarded amount may differ for each 15-minute interval within the hour). Under this proposal, resources would be able to be committed intra-hour at the beginning of any 15-minute interval. APS generally supports this proposal. However, moving from hourly scheduling to 15-minute scheduling will require modifications (some of which may be significant) to the software that APS and other EIM entities rely on to optimize their portfolios, interact with the CAISO software, and participate in the market. Therefore, the ability to submit 15-minute schedules will necessarily be dependent on the ability of the software vendors to modify, test, and deliver updated software, and the ability of, and timing for, the vendors to provide these modifications should be considered in implementing the proposed change. The proposed change will likely also require modifications to the EIM Entities' internal business processes, the timing of which should also be taken into consideration in implementing the proposed change. Therefore, APS recommends that the CAISO incorporate feedback about the degree of difficulty imposed by the proposed change and adjust its proposed implementation timelines accordingly. APS also supports the corresponding changes in the resource sufficiency test to provide for 15-minute granularity.

2. Imbalance Reserve Product

The CAISO proposes a new product in the Day Ahead Market known as Imbalance Reserve. APS has concerns regarding the CAISO's proposal (mentioned on the April 18, 2018 stakeholder call) that the Imbalance Reserve product evolve into the resource sufficiency test for EIM Entities participating in an extended day ahead market (EDAM). The imbalance reserve product is a proposed CAISO BAA requirement and EIM Entity BA's have their own requirements for dealing with uncertainty from day ahead to real-time. As such, APS believes that any application or extension of the Imbalance Reserve requirement to EIM Entities in EDAM should be evaluated for cost vs. benefits, OATT impacts, and the overall workability of the requirement. APS believes that this evaluation is best performed as part of an extended day ahead market stakeholder process.

Similarly, APS believes that any proposed penalties for failing to procure the Imbalance Reserve requirement must also be carefully considered as part of an EDAM stakeholder process. The penalty for failing would need to be reconsidered in an EDAM stakeholder initiative, because the application of the test would shift from CAISO solving operational challenges in their BA, to a regional test centered on resource sufficiency. The appropriate consequence for failing may change if a regional requirement for EDAM members is established as part of the EDAM stakeholder process.

3. Regulation Up and Down Energy

APS would like to request further information in regards to the changes for accounting for regulation up and regulation down energy in EIM. Perhaps developing a numerical example to illustrate the issue would help explain the problem. In

addition to an example, can CAISO describe how uninstructed imbalance as a result of imperfect market solutions is handled when regulation resources are moved to follow ACE in EIM today.