



**Comments of Arizona Public Service
Day-Ahead Market Enhancements, Phase 1
CAISO Stakeholder Process
Third Revised Straw Proposal**

April 1, 2019

Arizona Public Service (APS) appreciates the opportunity to comment on the CAISO's Third Revised Straw Proposal for the Day-Ahead Market Enhancements ("DAME") Phase 1¹. APS is generally supportive of the 15-minute scheduling granularity changes proposed by CAISO and believes these changes will promote scheduling that more closely aligns with real-time conditions. Additionally, APS submits the following comments for the CAISO's consideration.

Single Dynamic Ramp Rate

APS supports the proposal for Single Dynamic Ramp Rates. In particular, the proposal to utilize certified ancillary capacity testing to support the ramp rate value. APS believes this is a positive step in the right direction and will provide assurance in response capability.

Non-Generator Resources Providing Ancillary Services

APS is very encouraged by CAISO's inclusion of a proposal for Non-Generator Resources Providing Ancillary Services. While we are not yet in a place to comment on the specific time durations for regulation up or down as outlined in the proposal, we appreciate the ISO's focus on adapting market rules to ensure these resources can efficiently participate in the market. APS has committed to procuring 850MW of new battery storage by 2025 and expects that these batteries will make up an important part of our resource portfolio well into the future. We look forward to working with the CAISO on this, and future initiatives, to ensure that market rules eliminate any potential barriers to battery participation.

Federal Energy Regulatory Commission Tariff Filings

As mentioned in several other EIM Entity comments, APS anticipates that it may be necessary to revise its tariff in order to implement the changes proposed in Phase 1 of the DAME initiative. Consequently, APS requests that the CAISO coordinate with EIM entities on the timing of filing its tariff revisions with the Federal Energy Regulatory Commission ("FERC"), to ensure that the implementation date allows for ample time for EIM Entities to file corresponding and requisite tariff changes. Additionally, APS requests that CAISO coordinate with EIM Entities in the development of corresponding business practices as necessary.

¹ APS realizes that these comments are being submitted out-of-time and appreciates any consideration the CAISO is able to afford them.

Fifteen Minute Bidding and Scheduling

While APS is supportive of moving to 15-minute scheduling and bidding granularity, these changes will require significant software and system changes, and will likely require modifications to EIM Entities' internal business processes. Sufficient time must be included in the implementation schedule for these system upgrades. As these market enhancements will require a large collaborative effort, APS supports NV Energy and PacifiCorp's requests that the CAISO provide a minimum of 60 days for the operational users to test this functionality before implementation. To facilitate this, APS requests that CAISO makes the Map Stage test environment available for the entire testing window and that the length of the Map Stage window not be reduced beyond that timeframe.

Intertie Bidding and Scheduling Options

APS is supportive of CAISO's proposal to allow imports and exports to bid and schedule with 15-minute granularity. However, given this proposed change, APS suggests that CAISO also reconsider their policies regarding how these units must be modeled. Currently, the CAISO requires that tie generators be modeled as simple cycle generators, regardless of their actual capabilities. This requirement stems from a concern that entities may be able to change the way they dispatch multi-stage generating resources within the hour. However, any concern that an entity could change the configuration of a unit inside the hour should be mitigated with 15-minute scheduling granularity. While not currently contemplated in the Straw Proposals, APS respectfully suggests that the CAISO consider changing this business requirement as part of the implementation of the DAME Phase 1 Initiative.

Conclusion

APS appreciates the CAISO's consideration of these comments and looks forward to working with the ISO on this effort.