



A subsidiary of Pinnacle West Capital Corporation

To: WEIM Governing Body & CAISO Board of Governors

Subject: Extended Day Ahead Market

Date: January 27th, 2023

Arizona Public Service (APS) submits the following comments to the WEIM Governing Body and CAISO Board of Governors regarding the decision item on the Extended Day Ahead Market scheduled for the February 1 2023, Joint Board Meeting. APS has participated actively in the stakeholder process and appreciates the progress made to date on the EDAM design. With this communication, APS seeks to reiterate the importance of five elements of a comprehensive day ahead market design that APS believes could still be improved. These elements are governance, wheel-through, resource adequacy, price formation (particularly fast-start pricing) and energy limited resources. It is important to note that substantial progress has been made by stakeholders and CAISO staff and that EDAM will require further evolution and enhancements in the future. At the same time, APS recognizes the WEIM is still being refined and requests CAISO work with stakeholders to balance support needs for EDAM and WEIM once both markets are operating.

Governance:

Any governance structure for the day ahead market should drive towards unbiased decision making so that balanced outcomes may be achieved by all market participants. After much work and deliberation by the Governance Review Committee, the final EDAM proposal before the governing bodies includes a Joint Authority governance model. While not a fully independent model for governance, APS acknowledges that this model moves the program toward a more equitable governance structure. However, absent changes made by the California legislature to enable the CAISO to function as an independent and unaffiliated market operator, APS remains concerned that opportunities for inequity will continue to arise. To that end, APS recommends that the Joint Authority model be applied as broadly as possible and that sole decisions by the California government appointed Board of Directors be kept to a minimum.

Wheel-Through:

Before the governing bodies is the Transmission Service and Market Scheduling Priorities Phase 2 (TSMSP), also referred to as the “wheel-through” issue. APS acknowledges the interim solution put in place after the summer heatwave of August 2020, which resulted in high priority wheel-throughs during CAISO all-time peak loads



A subsidiary of Pinnacle West Capital Corporation

that were not subject to curtailment. APS reiterates that external entities wheeling through the CAISO were not a contributing factor to any reliability issues on the CAISO grid including heatwaves from August 2020 to September 2022. While APS is encouraged with how the interim solution has performed, APS still holds a few concerns that have been previously expressed.

First, the TSMSP Phase 2 appears to reduce the amount of high priority wheel-through using the ATC calculation than may be necessary, as evidenced by the results of the September 2022 heatwave. APS is concerned that the level of ATC made available to external entities seeking high priority wheel-through status is too limited to allow for such transactions to occur on any meaningful basis. This would limit entity's ability to access the CAISO transmission to serve native load during the most critical hours of the year. The current proposal would use historical based information to inform the ATC calculation and may leave little to no ATC available for high priority wheels except for where clear physical ability to support wheels remains.

APS suggests that CAISO use a combination of forward-looking assessments of import requirements to meet CAISO native load and information regarding executed contracts that will use that path in the ATC calculation horizon to perform these calculations. The use of contracts and forward-looking assessments would more accurately assess true transmission availability and could potentially allow greater usage of the CAISO transmission system for external customers. It is to be seen if external entities will be worse off with this proposal than the interim solution in place today.

Additionally, APS is concerned that the prioritization of schedules granted high priority wheeling status has been diluted and thus no longer assures true high priority. Under the current interim proposal, high priority wheels are put on a level playing field with RA transactions designated to serve native load. While APS had concerns about this proposal, we supported the general idea that transactions meeting the stringent criteria required to be designated as high priority would only be cut pro-rata with designated RA transactions in extreme circumstances to serve CAISO native load. APS appreciates the clarity added to the revised straw proposal that limits native load needs plus high priority wheeling to the TTC of the inter-tie and highlighting that the curtailment of high priority wheels will only occur when both transmission derates and power balance constraint violations are realized in CAISO.

Finally, APS remains concerned that the timeline requirements outlined in the proposal will make it difficult for external entities to contract and compete for resource adequacy supply in accordance with other requirements. Specifically, the proposal impacts external entities' ability to procure and compete with CAISO LSEs and introduces a framework that condenses the procurement of resource adequacy into a narrow window, which impacts resource adequacy requirements for entities also participating in WRAP. Since external entities will need to postpone procuring resources until the CAISO transmission is posted, they may not be able to contract for resources on the same timeline as a CAISO



A subsidiary of Pinnacle West Capital Corporation

LSEs and may be unable to procure in a manner sufficient with a potential counterparty's desires. APS appreciates the addition of a yearly review of ATC methodology and transmission customer needs to the revised final proposal and appreciates the forum to voice enhancements in the future.

Resource Adequacy:

APS believes a common resource adequacy program is a cornerstone to a day ahead market. The EDAM proposes to adopt the resource sufficiency program of WEIM. The program has previously been scrutinized for perpetuating different operating paradigms for CAISO and WEIM entities. APS believes extending the WEIM resource sufficiency program to the day ahead will lead to greater asymmetries for EDAM participants. APS is cautious of the use of resource sufficiency to determine an ability to participate in a day ahead and real-time market because flaw in design can lead to financial and reliability inequities to the host BAA's load through propagation of resource shortfalls across the market footprint.

Price Formation:

APS continues to support the incorporation of fast start pricing into the WEIM and EDAM to reflect the marginal cost of serving load within the LMP of the market. FERC has recognized this issue and previously ordered NYISO, PJM, and SPP to amend their fast start pricing practices accordingly.¹ Fast start pricing would result in better price formation between the day ahead and real-time markets reflective of the marginal energy cost while the flex ramp product does not adequately compensate fast start resources' capabilities with price levels at or near \$0. APS prefers fast start pricing policy in the EDAM design and is not optimistic that the current Price Formation Enhancements will result in an outcome that adds fast start pricing in the future. The next stakeholder meeting on the initiative is scheduled for April, which will not allow for changes to progress in time to align with the launch of EDAM.

Energy Limited Resources

Many entities have resources that have varying hourly and daily output limitations. The current EDAM design provides for daily energy limits by resource for gas and hydro units. These limits may not provide sufficient information to the market to avoid financial and reliability problems.

Natural gas units can have hourly and daily burn limitations due to pipeline contractual and commodity supply limitations. During strained gas pipeline conditions, incremental gas costs can change dramatically. Recovery of those costs via current market

¹ FERC Docket Nos. EL18-33-000, EL18-34-000, and EL18-35-000



A subsidiary of Pinnacle West Capital Corporation

mechanisms can be problematic. In addition, during extreme events, pipelines can limit consumption using flow control valves. Hydro resources can have similar limitations due to physical and environmental concerns.

A similar situation occurred in September 2022 where bulk energy storage resources had exhausted their fuel (charge) before peak loads occurred. Without better tools and market mechanisms the same problem can occur with gas and hydro resources. CAISO needs to continue to work with market participants to develop mechanisms for participants to inform the market on a daily basis of fuel limitations. This will help avoid reliance on resources that may not have sufficient fuel supplies to meet the needs of the market.

Thank you for your consideration of APS' concerns and we look forward to further enhancements and refinements in these areas moving forward with CAISO.