

Comments of Arizona Public Service Co.  
Extended Short-Term Unit Commitment  
Straw Proposal dated May 15, 2018

APS appreciates the opportunity to provide comments on the May 15, 2018 Straw Proposal for Extended Short-Term Unit Commitment (STUC). APS agrees with the benefits provided operationally of an extended STUC which would move the horizon from the current 4.5 hours to 18 hours. APS faces similar challenges with the duck curve as the CAISO and supports this extension to improve unit commitment and de-commitment dispatches to efficiently solve the morning and evening peaks challenges. APS also realizes the benefits of the extension of STUC to dispatch long-start units, where the current framework is only committing short and medium start units. The comments for the proposed Extended STUC initiative are centered on the following: DEB publication timeframe, 5 and 15 minute VER forecast, CAISO load forecasting, and ETSR limits.

#### DEB Publication Timeframe

In order to participate in the Western EIM, APS is required by FERC to bid its participating resources at or below the Default Energy Bid (DEB). Currently, the DEB file is published by CAISO to CMRI around 22:00PPT. In order for APS to download the DEB curves and compare to calculated bid curves APS' does not submit market bids until the DEB files are published.

With a move to an 18 hour horizon in STUC and the current late publishing of the DEB, APS will not be able to submit bid curves for the entire 18 hour time horizon until HE 1 (T-75) of each operating day. It has been communicated to APS that the reason for the late publication of the DEB curve by CAISO is tied to the publication of gas index prices from various sources. APS requests that the CAISO evaluate the possibility of publishing the DEB file earlier at an earlier time to ensure APS's is able to submit bids for the full 18 hour requirement at each hour of the day. APS would like to suggest the DEB curve be published when Real-Time Market bids become available to submit after the Day-Ahead Market clears around 1300PPT.

#### 5 and 15 Minute VER Forecast

Currently, APS submits 5 minute VER forecasts for four hours out and for the remainder of the time frame, these forecasts are submitted as hourly in the Base Schedules. APS does not anticipate changing this process as these forecasts should be adequate for the 18 hour "Extended STUC" window, but would like to further details and information from the CAISO if any of these processes should be changed due to an Extended STUC window.

#### CAISO Load Forecasts

APS is concerned with CAISO load forecasting accuracy for an 18 hour STUC window and the potential impacts of inaccurate forecasts to not only our BAA but the Western EIM. APS has worked with CAISO since our go-live in the Western EIM in October of 2016 on load forecast improvements and we have seen progress in near term, specifically next hour (T-60) forecasting performed by CAISO for APS' BAA. Unfortunately, the forecasting accuracy beyond 4.5 hours is more often than not greatly inaccurate which has resulted in over-commitment of generating resources by APS. When looking 6+ hours out for gas and generation planning, APS has observed load forecast deviations in CAISO forecasting for our BAA at times in excess of 600 – 800 MW.

With the proposed Extended STUC, APS is would like to ensure the concern of forecast accuracy is not taken lightly, is identified, and addressed as a needed improvement by CAISO for an Extended STUC to be successful. There are a multitude of negative effects inaccurate load forecasting can have on market participants such as influencing bilateral market activities, particularly during summer months when system capacities and gas procurements are exhausted.

#### ETSR Limits

With the extension of the STUC from 4.5 hours to 18 hours, APS is concerned that the ETSR calculations could be skewed since these calculations are dependent on the availability of ATC's. ATC calculations could potentially change due to system outages or tag submittals up to T-20. Given that the Extended STUC looks at 18 hours out, APS is concerned that

unit commitments are dependent on ETSR calculations which could potentially be diminished or unavailable once the operating hour is approached.

APS looks forward to being a part of this initiative and further understanding the additional details and the impacts to the Western EIM. APS looks forward to getting additional details with the upcoming BRS publication expected to be posted on June 6<sup>th</sup> to better understand the needed details and impacts to our software systems to support an Extended STUC as well as begin planning any needed enhancements. Lastly APS would like to understand if there are any other submissions that should be explicitly included/excluded from the 20 hour extension for the proposed 18 hour STUC?

Thank you.