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PacifiCorp’s Comments on the Day-Ahead Market Enhancements Revised Straw Proposal

PacifiCorp hereby submits the following comments to the California Independent System Operator Corporation (“ISO”) on the Day-Ahead Market Enhancements revised straw proposal that was published April 11, 2018, (“Revised Straw Proposal”). PacifiCorp appreciates the opportunity to provide comments for the ISO’s consideration.

Introduction

The ISO states in its Revised Straw Proposal that the purpose of the initiative is to improve grid reliability and efficiency of its day-ahead market. The ISO proposes the following enhancements to achieve these improvements:

- Change the day-ahead market from hourly to 15-minute scheduling granularity;
- Combine the integrated forward market (“IFM”) residual unit commitment (“RUC”) processes; and
- Procure imbalance reserves that will have a must offer obligation to submit economic bids for the real-time market.

PacifiCorp understands that this initiative proposes enhancements to the ISO’s day-ahead market in the ISO balancing authority area (“BAA”), and that the scope of extending the day-ahead market to energy imbalance market (“EIM”) entities will be addressed in a separate stakeholder initiative. PacifiCorp generally supports the enhancements proposed in the Revised Straw Proposal and offers specific comments below.

Fifteen-Minute Scheduling Granularity

The ISO’s proposal to move to 15-minute scheduling granularity is not expected to change the current requirement to submit bids on an hourly basis for both the day-ahead and real-time markets. However, the awarded amount will have the ability to change for each 15-minute interval in the hour. Similarly, scheduling coordinators will have the option to select block scheduling for resources; if a block schedule is selected, the schedule will remain at the same value for the



duration of the operating hour, and if a block schedule is not selected, the resource schedule may be changed on a 15-minute basis.

PacifiCorp supports the proposed enhancement that would provide the capability to submit 15-minute base schedules in the EIM, as it would give EIM scheduling coordinators the ability to better manage their non-participating resources across the hour as well as manage solar and load ramping events more efficiently.

Procurement of Imbalance Reserves

In its Revised Straw Proposal, the ISO proposes to procure day-ahead imbalance reserves, which will have a must offer obligation in the real-time market to ensure sufficient real-time economic bids are available to resolve deviations that occur between the IFM and the real-time market in the ISO's BAA. The ISO further proposes to allocate costs of this imbalance reserve product consistent with existing ISO cost allocation guiding principles, particularly the cost-causation principle. PacifiCorp supports the allocation of the imbalance reserve cost to the day-ahead market.

PacifiCorp would like further clarification on how the imbalance reserve product would be awarded and optimized based on the bids that are submitted, e.g. both capacity and energy bid, capacity bid only. If the award takes into consideration an energy bid, is there a requirement to bid the same energy bid in the real-time market that was provided in the IFM? PacifiCorp is concerned that the ability to change the energy bid in the real-time market may result in unintended market outcomes, such as uneconomic bidding due to a desire to not be dispatched for energy given that a capacity payment has already been received. Currently, the ISO's Ancillary Service awards include both a capacity and energy component to the bid that cannot be changed in real-time, therefore, the current experience of the ISO does not provide information on how energy bids might change in the real-time market for an imbalance reserve product.

PacifiCorp is unclear on the transmission requirements for an imbalance reserve product award in the IFM. For example, if a provider outside of the ISO footprint is awarded imbalance reserves, is there a requirement to provide an e-tag on a day-ahead basis for firm transmission to facilitate the must-offer energy bids in the real-time market? Would it be possible for EIM entities to submit imbalance reserve bids into the day-ahead market and utilize EIM available transmission to facilitate the energy bid in the real-time market? PacifiCorp supports the need for day-ahead firm transmission requirements for the imbalance reserve product for all entities, regardless of their EIM participation. Is there a possibility of double-counting the flexible capacity of the ISO and the EIM entity since there is only an energy bid requirement in the real-time market?

PacifiCorp is unclear why a California load serving entity would not be allowed to self-supply for its imbalance reserve requirements. PacifiCorp requests that the ISO provide additional information on why it is reasonable to be able to self-supply ancillary services, but not imbalance



reserves? Please provide additional information on the specific concerns the ISO has in allowing self-supply of imbalance reserves.

Imbalance Reserve Requirement

With regard to the imbalance reserve requirement, PacifiCorp is supportive of an approach that takes into consideration the relative forecast levels of wind, solar, and load. Currently the uncertainty requirement does not reflect consideration for the actual levels of wind, solar, and load that are forecast. For example, wind during hour-ending seven was forecast to be at 1,000 megawatts today and zero megawatts tomorrow, but the hour that had zero megawatts forecast has the same upward flex requirement as the hour that has 1,000 megawatts forecast. PacifiCorp would like to better understand how the ISO will attempt to incorporate the relative levels of the forecast into the uncertainty requirement.

Cost Allocation

The ISO has indicated that costs for imbalance reserves will be allocated to scheduling coordinators that create inflexibility and require dispatch of upward and downward imbalance reserves. In the ISO's calculation example for upward and downward billing determinants, the ISO explained that the application of costs will apply to changes from the IFM schedule. Within the context of the explanation there was no discussion of allocation to EIM participants, but PacifiCorp would like to confirm that the cost allocation would not apply to changes from EIM base schedules and will only apply to changes from IFM schedules.

Conclusion

PacifiCorp appreciates the ISO's consideration of these comments and questions and looks forward to the ISO's response.