



Stakeholder Comments Template

Day-Ahead Market Enhancements Phase 2 Initiative

This template has been created for submission of stakeholder comments on the issue paper and straw proposal that was published on February 28, 2019. The paper/proposal, Stakeholder meeting presentation, and other information related to this initiative may be found on the initiative webpage at: <http://www.caiso.com/informed/Pages/StakeholderProcesses/Day-AheadMarketEnhancements.aspx>

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on April 4, 2019.

Submitted by	Organization	Date Submitted
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PacifiCorp submits the following comments to the California Independent System Operator Corporation (“CAISO”) on the Day-Ahead Market Enhancements (“DAME”): Phase 2: Flexible Ramping Product Issue Paper/Straw Proposal, published February 28, 2019 (“Straw Proposal”). PacifiCorp appreciates the opportunity to provide comments for the CAISO’s consideration.

General Comments and EIM Governing Body Classification

While supportive of the overall effort to improve the reliability and efficiency of the day-ahead market and better position its system to accommodate net load variability, PacifiCorp is concerned that the Phase 2 proposal 1) is premature and does not allow for meaningful input from energy imbalance market (“EIM”) entities who may pursue participation in an expanded day-ahead market (“EDAM”); and 2) does not allow for adequate oversight by the EIM Governing Body given potential impact to EIM entities who pursue participation in an EDAM.

Like the CAISO system, PacifiCorp’s system is challenged with net load variability due to its large fleet of renewable resources relative to the balancing area load, and must position itself to meet its reliability requirements on a day-ahead and real-time basis. PacifiCorp currently plans for and holds flexible up/down reserves on a day-ahead basis to maintain reliability in real-time in the event that forecast uncertainty is realized and the real-time market (hour-ahead bilateral market) cannot accommodate the day-ahead forecast error that may have occurred. For example, if PacifiCorp’s wind generation is forecast to produce 1,500 Megawatts (“MW”) in a single hour, but is forecast to only produce 700 MW on an hour-ahead basis, it would be very challenging (liquidity and price exposure) for PacifiCorp to purchase an additional 800 MW in the real-time,

bilateral market to serve its load. Therefore, in order to meet its reliability requirements, it is necessary for PacifiCorp to plan for and hold uncertainty reserves on a day-ahead basis.

PacifiCorp is concerned that the flexible ramping product proposed by the CAISO may not be consistent with how PacifiCorp plans for and holds its day-ahead uncertainty reserves. While PacifiCorp would not be immediately impacted by the CAISO's proposal, it is clear from the Straw Proposal that this initiative is meant to "lay the foundation for a future initiative that would give EIM entities the option of participating in the day-ahead market."¹ PacifiCorp is concerned that the proposed product would be inconsistent with PacifiCorp's current practices but since the design of an EDAM does not currently exist, it is not possible for PacifiCorp to provide meaningful comments on the current proposal in that context.

PacifiCorp therefore recommends that the CAISO pursue the design of this product when there is more certainty regarding the future of EDAM. Once implemented, with only the CAISO's needs and requirements taken into consideration, the reality is that changes will be more difficult to make in the context of designing an EDAM. If there are material differences between PacifiCorp's current operating practices of holding uncertainty reserves and the finalized flexible ramping product design, it may forestall PacifiCorp's ability to participate in an EDAM or prolong the stakeholder process as parties continue to debate changes to a product that may have only recently been approved.

With the prospect of an EDAM stakeholder process in the near future, PacifiCorp suggests that the CAISO consider tabling Phase 2 of the proposal, focusing on the feasibility of Phase 1, and defer consideration of the product until it is known whether an EDAM stakeholder process will occur. PacifiCorp nonetheless provides initial comments on multiple components of the proposal below.

Please provide your organization's comments on the following issues and questions.

1. Proposed Day-Ahead Market Structure

Reliability and Deliverability Assessment

Based on initial studies, the CAISO proposes to reduce or eliminate the need for operators to make additional commitments outside of the market through the Residual Unit Commitment ("RUC") process in its current form and proposes the introduction of a day-ahead reliability and deliverability assessment. According to the CAISO, the new reliability and deliverability assessment, a power flow study, would be executed following the completion of the integrated forward market ("IFM"). If the solution is "infeasible" an operator may have the opportunity to exceptionally dispatch supply resources.

PacifiCorp would like further clarification and examples of an infeasible power flow result and how operator initiated exceptional dispatches would remedy the issue along with details regarding timing and communication. Exceptional dispatch costs are currently captured through out-of-market payments and PacifiCorp would like to understand whether these

¹ Straw Proposal at 25.

exceptional dispatch costs would be considered day-ahead market costs or real-time market costs.

PacifiCorp is supportive of the CAISO's desire to move away from the RUC process, explicitly carry uncertainty reserves on a day-ahead basis, and realize more accurate price formation in the IFM through the elimination of the RUC process. However, PacifiCorp is concerned that continuing to plan for and make out-of-market dispatches relative to reliability is not a good construct in the context of an EDAM, due to the fact that regional requirements that were not considered in the day-ahead market may not be available after the IFM because of gas nomination constraints.

PacifiCorp would also like to understand if the reliability and deliverability assessment results will have any influence on the next day reliability assessments submitted to the CAISO reliability coordinator by entities receiving reliability coordinator services from the CAISO.

2. Day-Ahead Flexible Ramping Product

General Requirements

In its Resource Requirements section, the CAISO has asked whether it should procure a portion of the real-time flexible ramping product requirement during the day-ahead time frame. At this time, and based on its own operating experience, PacifiCorp does not believe that it is reasonable to procure real-time flexible ramping product in the day-ahead market because currently in the real-time market ("RTM"), the uncertainty requirement is determined and procured across the EIM footprint. As it is currently proposed, the CAISO's procurement of a day-ahead flexible ramping product in the day-ahead market may lead to uneconomic procurement since EIM entities have not yet bid in supply or demand. The CAISO should clarify whether the intent of the proposal is to procure only the CAISO's RTM uncertainty requirement in the day-ahead market or whether there is an assumption that a component of RTM uncertainty exists that could not be met from the entire EIM footprint, e.g. sub-regional requirements.

In addition, because the day-ahead uncertainty requirement would be needed for a minimum amount of time, due to using a 95% confidence interval, there will likely be additional day-ahead flexible ramping product resource awards that will not be necessary to be converted to energy (in the event the uncertainty is realized) and can potentially be awarded a RTM flexible ramping product award. This postulation assumes that the CAISO is utilizing forecast levels of load, wind and solar to set its uncertainty requirement. This more likely outcome, due to a 95% confidence interval requirement, would also potentially lead to over-procurement in the IFM if real-time uncertainty requirements were purchased simultaneously.

The CAISO proposal, in reference to its current RTM ramping capability procurement, states that the day-ahead flexible ramping product requirement should be designed so that there are sufficient real-time economic bids to meet the uncertainty that can potentially materialize in the fifteen-minute market ("FMM"). The CAISO should clarify whether its logic related to the sufficient procurement of RTM ramping capability means it is acquiring both day-ahead and RTM ramping capability and whether this is intended to ensure sufficient real-time economic bids to meet the uncertainty that can potentially materialize in the FMM.

Sub-Regional Deliverability

PacifiCorp agrees with the logic proposed in the sub-regional deliverability and the need to address reliability concerns related to awarding capacity located behind a constraint. However, clarification is needed with respect to the statement that the CAISO is proposing to not explicitly ensure deliverability of flexible ramping product, but instead leverage sub-regional requirements to distribute a portion of the overall requirement across each balancing authority area. The CAISO should clarify whether its reference to balancing areas implies the same logic may be used in the EIM with regard to the real-time flexible ramping product.

Resource Eligibility

PacifiCorp is supportive of a requirement for adequate transmission to be procured to ensure delivery of a flexible ramping product on the interties. With regard to the options provided by the CAISO, PacifiCorp would generally support the second option identified by the CAISO, where an e-tag submission is required after the publication of the day-ahead market run. PacifiCorp believes option two is adequate to ensure the transmission is reserved on a day-ahead basis, and will provide the CAISO an ability to procure additional flexible ramping product if transmission is not available. Option one, as proposed by the CAISO may lead to inefficient procurement of transmission and option three would not allow the CAISO to remedy a potential shortfall in day-ahead flexible ramping product within the short-term unit commitment window.

Bidding

The CAISO proposes allowing corrective capacity and day-ahead flexible ramping product to have the same capacity cost in order to be available in real time with economic bids. PacifiCorp is unaware of a “corrective capacity” product that is currently in production. Based on prior Contingency Modeling Enhancement comments and processes, it is also unclear how the corrective capacity is utilized and whether it is a product that would be reasonable in an EDAM construct. The references to corrective capacity in the current proposal gives the impression that this is a fully vetted product and does not need additional analyses or comments, but it does not appear that this proposed product went through a tariff filing process, and it is unclear on whether there continues to be a need for this requirement given the time since stakeholders submitted comments in 2013.

PacifiCorp requests an explanation of the discrepancy between Appendix C of this initiative’s phase 2 which states, "There are no explicit upper bounds for FRU/FRD since there is no associated capacity bid for them, i.e., all available capacity under the energy bid above/below the energy schedule can be procured as FRU/FRD", and the Straw Proposal which states, "The CAISO proposes to design the market such that eligible market participants can bid on the following products: Flexible ramping product (upward and downward)".

Cost Allocation

PacifiCorp requests clarification on whether or not the CAISO is proposing to include bid cost recovery payments for the day-ahead flexible ramping product into the RTM settlement allocation. If so, PacifiCorp is concerned with the prospect of an EIM entity being required to pay for the CAISO to acquire day-ahead flexible ramping product. For example, PacifiCorp incurs significant costs in the day-ahead market to hold its uncertainty reserves through bilateral transactions or by reducing bilateral sales. The cost PacifiCorp incurs to have this

capacity available is not included in its bids in the RTM, which strictly includes the cost of energy for each resource. PacifiCorp opposes any proposals to pass on any portion of the CAISO's day-ahead costs to acquire day-ahead flexible ramping product through bid cost recovery mechanisms or through any other cost allocation mechanisms to the RTM.

Flexible Ramping Product Uncertainty Calculation

As stated in its comments on the DAME phase 1 initiative, PacifiCorp stresses its concern regarding the flexible ramping product uncertainty calculation. Due to a disconnect between forecast levels of variable energy resources and the uncertainty calculation, PacifiCorp's system is often required to hold upward capacity beyond its needs. This results in the need to hold capacity when it is operationally unnecessary to do so. This issue is critical to PacifiCorp and, to resolve this issue, the CAISO should place greater priority on incorporating forecast levels of load, wind and solar in the determination of the real-time flexible ramping requirement.

Additional comments

After reviewing stakeholders' comments regarding Phase 1 of the DAME initiative, PacifiCorp requests that the CAISO conduct a cost-benefit analysis to determine whether there is sufficient value in moving forward with 15-minute granularity in the day-ahead market.