



## Stakeholder Comments Template Day-Ahead Market Enhancements Phase 1 Initiative

Submitted by	Organization	Date Submitted
Laura Trolese (360) 513-6465 ltrolese@publicgeneratingpool.com	Public Generating Pool (PGP) <sup>1</sup>	March 26, 2020

**Please provide your organization's overall position on the DAME straw proposal:**

- Support
- Support w/ caveats
- Oppose
- Oppose w/ caveats
- No position

**Please provide written comments on each of the straw proposal topics listed below:**

PGP strongly supports the changes proposed in CAISO's Day-Ahead Market Enhancements Straw Proposal dated February 7, 2020. We believe these enhancements are necessary for ensuring grid reliability through efficient market results and are extendable to Balancing Authority Areas outside of the CAISO.

### ***Grid Reliability***

The changing resource mix of the Western grid demands new market solutions that send the proper price signals for the attributes needed to maintain reliability and ensure that sufficient resources needed to provide key reliability services are available to be dispatched. CAISO has documented severe capacity shortages and a systemic reliance on thousands of MWs of additional capacity and flexibility inefficiently procured through sequential and out-of-market actions (i.e. exceptional dispatch, load biasing, etc.). And the forecasted needs of the California grid for capacity and flexibility continue to grow at a rapid pace. The CAISO's proposed day-ahead market enhancements allows the CAISO to ensure sufficient day-ahead capacity and flexibility are available in real-time to reliably meet the needs of the grid with a high degree of confidence.

---

<sup>1</sup> PGP represents eleven consumer-owned utilities in Washington and Oregon that own almost 8,000 MW of generation, approximately 7,000 MW of which is hydro and over 97% of which is carbon free. Four of the PGP members operate their own balancing authority areas (BAAs), while the remaining members have service territories within the Bonneville Power Administration's (BPA) BAA. As a group, PGP members also purchase over 45 percent of BPA's preference power.

### **Public Generating Pool**

Benton PUD / Chelan County PUD / Clark Public Utilities / Cowlitz County PUD / Eugene Water & Electric Board  
Grant County PUD / Klickitat County PUD / Lewis County PUD / Seattle City Light / Snohomish County PUD / Tacoma Power

### ***Market Efficiency***

The co-optimization of energy, ancillary services, capacity, and flexibility products in a combined Integrated Forward Market (IFM) – Residual Unit Commitment (RUC) day-ahead market solution yields the selection of the right resources for the right products at the right time and the right price. The current Day-Ahead Market structure does not incorporate all costs to meet the load forecast and net load uncertainty needs in the market solution, requiring additional resource commitments to be procured through sequential processes that results in a suboptimal (higher cost) unit commitment solution. Co-optimization of products produces the efficient market outcomes necessary to minimize overall costs and maximize value to the products provided towards meeting grid reliability.

### ***Extension of the Day-Ahead Market***

The CAISO's proposed Day-Ahead Market Enhancements are also foundational to extending the day-ahead market to EIM Entities. The success of EDAM requires a market design that provides a physical day-ahead market solution as well as appropriately values the specific attributes provided by different resource types. The Day-Ahead Market enhancements, as proposed in the current Straw Proposal, not only provides significant reliability and efficiency benefits to the CAISO Balancing Authority Area, but also provides a framework that is workable and equitable for a broader regional market. These changes are essential for providing EDAM participants confidence in the market results and ensuring that EDAM participants receive fair compensation for the services they are providing.

## **1. New day-ahead market products, including reliability energy, reliability capacity, and imbalance reserves.**

PGP strongly supports the development of the proposed new day-ahead market products - reliability energy, reliability capacity, and imbalance reserves.

**Reliability Energy and Capacity:** The reliability energy and reliability capacity products replace the existing RUC process enabling the integration of the IFM and RUC into a single market optimization, which allows the day-ahead market to cost-effectively co-optimize capacity and flexibility with energy and ancillary services. The Reliability Capacity Down product also serves a key reliability need that is not met today through the RUC process, the availability of resources to provide downward dispatch capability and/or de-commit resources.

**Imbalance Reserves:** The addition of imbalance reserves ensures CAISO has sufficient day-ahead flexible capacity available to meet ramping needs and net load uncertainties between day-ahead and real-time, and enables the market to more appropriately compensate flexible capacity resources rather than continuing to rely on extensive and inefficient out-of-market actions.

These new day-ahead products, if co-optimized and properly priced, play a critical role in ensuring sufficient day-ahead capacity and flexibility is available in real-time and sending

### **Public Generating Pool**

Benton PUD / Chelan County PUD / Clark Public Utilities / Cowlitz County PUD / Eugene Water & Electric Board  
Grant County PUD / Klickitat County PUD / Lewis County PUD / Seattle City Light / Snohomish County PUD / Tacoma Power

the right price signals for the resource attributes needed to sustain the reliability of the grid going forward.

## **2. Settlement and cost allocations.**

An important feature of a co-optimized day-ahead market solution is the differentiation between physical and virtual supply. It is appropriate for physical supply to receive payment for both its energy schedule and its reliability energy schedule as it contributes towards reliability energy and does not require additional procurement of reliability capacity. Virtual bidding continues to play important roles in the market, such as hedging for physical participants, LMP convergence, and improved liquidity. As virtual supply does not contribute towards reliability energy, it is appropriate that virtual supply receive payment for its energy schedule only. The market solution recognizes the extra costs incurred by any additional physical capacity needed to ensure CAISO has enough physical resources available to meet its forecasted demand.

## **3. Bidding rules and offer obligations.**

The purpose of procuring Reliability Capacity Up (RCU)/Reliability Capacity Down (RCD) and Imbalance Reserves Up (IRU)/Imbalance Reserves Down (IRD) is to have physical resources available in real-time to be able to be re-dispatched. Specifically, for imbalance reserves that are meant to cover a range of uncertainties between the day-ahead and the real-time markets, the market optimization needs the ability to determine a dispatch solution that corresponds with the real-time conditions that are realized and not commit the additional imbalance reserves that may not be needed. To achieve this, RCU/RCD and IRU/IRD awards must be economically bid into real-time and not self-scheduled.

The Resource Adequacy program is intended to ensure sufficient capacity, energy, and flexibility is available for CAISO to reliably operate the grid. The Day-Ahead Market Enhancements will provide CAISO with the ability to most efficiently and cost-effectively procure the day-ahead products it needs to meet real-time needs and uncertainties. As such, PGP supports the requirements for Resource Adequacy resources to have a must-offer obligation into the day-ahead market and have a real-time must offer obligation based on the specific product they are awarded in the day-ahead market. It is PGP's understanding that this would mean that Resource Adequacy resources that do not receive a day-ahead award have no further real-time must offer obligation.

## **4. Scheduling rules for variable energy resources.**

No comments.

### **Public Generating Pool**

Benton PUD / Chelan County PUD / Clark Public Utilities / Cowlitz County PUD / Eugene Water & Electric Board  
Grant County PUD / Klickitat County PUD / Lewis County PUD / Seattle City Light / Snohomish County PUD / Tacoma Power

## **5. Deliverability approach for reliability capacity and imbalance reserves.**

PGP supports CAISO's proposal to ensure Imbalance Reserves up and down are deliverable at a nodal level. If it can be implemented, the simulation of capacity deployment scenarios, modeling power flows at the level of demand of the respective imbalance reserves procurement targets, will provide the highest assurance that capacity awards are procured in optimal locations without violating transmission constraints.

However, PGP also supports the fall back of using zonal procurement of imbalance reserves if the nodal deliverability approach turns out to not be feasible. With consideration for EDAM, CAISO will need to work with individual EDAM Entities to determine appropriate zones.

## **6. Approach for congestion revenue rights.**

No comments.

## **7. Approach for local market power mitigation.**

PGP would like to better understand how CAISO plans to calculate default capacity bids for different resource types. As PGP and other hydro owners have expressed as part of CAISO's Local Market Power Mitigation 2018 initiative, it is important that market power mitigation methods accept and provide for the complex and dynamic nature of hydropower planning, operational constraints, and opportunity costs. Different types of resources will have different considerations in pricing their capacity and it is important that the unique circumstances and characteristics of distinct resources are captured in default capacity bid calculations.

## **8. Regression approach to determine the imbalance reserve requirement.**

PGP supports the regression approach for setting the imbalance reserve requirement. PGP understands the need for adjustment ratios and requests more discussion on what the best approach for these adjustments might be to accurately account for the different variables, namely wind and solar.

PGP also requests CAISO consider ongoing analysis of the performance of the imbalance reserve calculation, which would provide an important feedback mechanism to the CAISO and stakeholders to assess how the calculation is functioning compared to the intended range of uncertainties the Imbalance Reserves product was intended to cover (i.e. P95, etc.).

### **Public Generating Pool**

Benton PUD / Chelan County PUD / Clark Public Utilities / Cowlitz County PUD / Eugene Water & Electric Board  
Grant County PUD / Klickitat County PUD / Lewis County PUD / Seattle City Light / Snohomish County PUD / Tacoma Power

**9. Additional comments:**

PGP is encouraged by the proposal to date and the prospect of extending an enhanced CAISO Day-Ahead Market to EIM Entities. PGP cannot emphasize enough that these enhancements are not only important for reliability of the CAISO grid but are also essential for EDAM. We encourage the CAISO to continue ahead with the current proposal and look forward to engaging further on these proposed changes continue to evolve.

**Public Generating Pool**

Benton PUD/ Chelan County PUD / Clark Public Utilities / Cowlitz County PUD / Eugene Water & Electric Board  
Grant County PUD / Klickitat County PUD / Lewis County PUD / Seattle City Light/ Snohomish County PUD / Tacoma Power