

Stakeholder Comments

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The California Large Energy Consumers Association (CLECA) appreciates the effort by CAISO staff to investigate ways to improve the Day-Ahead market processes and address flexibility needs in the real-time market. From the Day-Ahead (DA) Enhancements Issue paper (Paper) issued on February 28, 2018, the CAISO wants to resolve the following issues:

- The Residual Unit Commitment Process is unable to decommit units that were cleared in the Integrated Forward Market.
- The granularity difference between the hourly DA market and the fifteen-minute market (FMM) that occurs real-time.
- The need to ensure sufficient resources are made available in the DA market to provide sufficient flexibility in the real-time market through the creation of an imbalance reserve product.

CLECA supports the DA Enhancements initiative as it has the potential to improve market operations to address the growing need for flexibility due to increasing renewable generation on the electrical grid. CAISO staff has put in a significant amount of time to think about operational issues in developing the proposal. Some additional work is needed to address some cost-related concerns, such as the potential for duplicative cost recovery for fixed capacity, risk of market manipulation, and how to measure market power.

CLECA has the following concerns:

- The imbalance reserve product creates a new revenue stream which has the potential for double recovery for capacity
- The terms for the flexibility products in the DA Enhancement and Flexibility Reserve Capacity and Must Offer initiatives are different which creates confusion
- Differences in the objective functions between the day-ahead and real-time markets needs additional investigation and simulation

- Simulations of the results of the proposal on day-ahead and real-time prices are needed so parties can evaluate the impacts.

1. The imbalance reserve product creates a new revenue stream which has the potential for double recovery for capacity.

Currently load-serving entities (LSEs) are required to acquire capacity to cover their firm load plus the planning reserve margin. For most LSEs, this is done in the California Public Utilities Commission's (CPUC's) Resource Adequacy (RA) process. The RA obligation is achieved through LSE-owned generation and contracts with generators and storage suppliers, and through demand response programs. We are concerned that the imbalance reserve product introduces a new revenue stream that was never considered in the negotiation of existing power contracts, and as explained in more detail, creates the possibility of double recovery of capacity costs.

A contract type known as an RA Tag is where an LSE buys RA capacity alone and the resource bids into the market, keeping any market revenue. The resource is compensated by a capacity payment. Because it qualifies as RA, it has an obligation to be available and schedule or bid into the CAISO's markets. We assume that an estimate of net energy market revenue¹ that can contribute to fixed cost recovery is incorporated into the development of a capacity payment during the negotiation process. When existing RA Tag contracts were negotiated, this additional revenue stream for providing imbalance reserve did not exist. Otherwise, its existence would have reduced the negotiated RA capacity payment. All else being equal, the additional revenue from providing imbalance reserve would be a windfall for resources with existing contracts to the detriment of customers.

For IOU-owned generation, the capacity costs are recovered from the native customers through the revenue requirement, regardless of participation in the market, and all market revenues flow back to customers.² There are also tolling contracts whereby the resource is paid a capacity payment, but the purchaser bids the unit and keeps all the market revenues. In this case as well, market revenues would flow back to customers. We assume, but cannot verify, that this type of arrangement would apply to other LSEs.

Thus today, resources contracted to provide RA already have mechanisms to recover the capacity cost associated with being available to the market. We question why there is a

¹ Net energy market revenue = Market revenues (including ancillary services) less short-run operating costs (i.e. fuel & variable O&M)

² This would also apply to municipal owned generation.

need for an additional payment for them to be available. Again, for merchant resources without RA contracts, this would be a different matter as they do not have a capacity payment.

The Paper states that “Unlike RUC [residual unit commitment] availability bids today, resource adequacy resources will not be required to bid \$0.00. Resources that are awarded imbalance reserves will be paid the marginal clearing price” and have a must offer obligation to submit bids in the real-time market.^{3, 4} The imbalance reserve product award requires the resource to bid into the real-time market and it keeps the payment provided it is bid into the real-time market.⁵ There is no adjustment to the reserve payment for any incremental revenues from bidding into the real-time market.⁶ Therefore, a RA Tag resource would receive a capacity payment from the imbalance reserve award and the capacity payment associated with the RA Tag contract, which appears to over-compensate the resource for capacity. It appears the justification for the non-zero bid requirement for RA resources is due to CAISO’s plan to extend the day-ahead market to Energy Imbalance Market (EIM) Entities.⁷ In this situation, the imbalance reserve product can be provided outside the native balancing authority.⁸ Many of the resources from EIM Entities are associated with vertically integrated utilities, for whom the capacity costs are already recovered from their native customers. For merchant generation outside the CAISO, it is likely they also have contracts to recover their fixed costs with an associated capacity payment. Thus, we wonder why the additional capacity payment is required.

There is one situation where compensation due to the imbalance reserve product may be warranted. This is the unique situation whereby the resource’s DA award is reduced due to its designation as an imbalance reserve product and that reduction is not made up in real-time revenues. In this unique case, there is a revenue reduction that occurred that was never incorporated into the resource’s projection of CAISO market revenues, which may result in insufficient revenue to recover fixed costs in an RA Tag contract.

Therefore, the CAISO should review the issue of over-compensation for capacity. The imbalance reserve product could be an award without a capacity payment or involve payments that are only made to certain resources, like non-RA resources.

The Paper also mentions that “a resource without an imbalance reserve award can elect not to bid into the real-time market.”⁹ What about resources contracted under a RA contract, reliability must run, or capacity procurement mechanism? Since they have been paid to must

³ CAISO Issue Paper at page 21.

⁴ CAISO Issue Paper at page 4.

⁵ CAISO Issue Paper at page 21.

⁶ CAISO Issue Paper at page 21.

⁷ CAISO Issue Paper at page 21, footnote 9.

⁸ Thus, the imbalance reserve product could be supplied to the CAISO by a EIM Entity, or vice versa.

⁹ CAISO Issue Paper at page 19.

offer or schedule in day-ahead and real-time, why should they be released from their contract obligation to bid in real-time?

2. The terms for the flexibility products in the DA Enhancement and Flexibility Reserve Capacity and Must Offer initiatives are different which creates confusion.

The Paper mentions in the section discussing the imbalance reserve product, the CAISO “will determine the appropriate split between 15-minute requirement and 5-minute requirement.”¹⁰ The Flexibility Reserve Capacity and Must Offer initiative mentions three products: 1) Five-minute flexible RA; 2) Fifteen-minute flexible RA; and 3) Day-ahead shaping RA.¹¹ It appears the imbalance reserve product covers the five and fifteen minutes products, but where does the day-ahead shaping product fit in the issue paper? What is the precise relationship among the imbalance reserve product in the DA enhancements, the 5-minute and 15-minute flexible RA products, and the day-ahead shaping RA product in the Flexibility Reserve Capacity initiative?

3. Differences in the objective functions between the day-ahead and real-time markets needs additional investigation and simulation.

Dr. Wei Zhou, Senior Advisor, Southern California Edison, commented at the March 7, stakeholder meeting that adding the imbalance reserve product will create differences between the objective functions between the day-ahead and real-time markets. The day-ahead market will issue dispatch awards based upon the need to hold a certain amount of capacity for the real-time market; however, the real-time market will not have such a constraint. This implies that the market awards would change even though all other inputs remain unchanged because the real-time market would re-optimize the system. This also brings up the issue of market manipulation whereby parties bid one energy price in the DA to enable a reserve product award and then another price in the real-time. The CAISO’s Department of Market Monitoring should offer an opinion on this potential issue.

4. Various questions on how DA Enhancements impact other CAISO products and procedures

- a) Please explain the interactions of the imbalance reserve product with the Flexibility Ramp Product, in terms of product award and settlement.
- b) How would the inclusion of residual unit commitment into the DA optimization change the incentives for virtual bidding?

¹⁰ CAISO issue paper at page 18.

¹¹ CAISO, Flexible Resource Adequacy Criteria and Must Offer Obligation – Phase 2 Revised Flexible Capacity Framework (January 31, 2018) at page 4.

- c) Please explain the impacts to bid cost recovery if payments are made for the imbalance reserve product.
- d) Has CAISO looked into resolving issues associated the very high price spikes that occurred last year in the day-ahead market as part of this initiative?
- e) Has CAISO looked at stepped penalty prices should there be insufficient imbalance reserve bids? In other words, a 1 MW shortfall would have a lower price than a 500 MW shortfall.
- f) How would a cost-based default bid for the imbalance reserve product be calculated for market power mitigation?
- g) What is the relationship between bids for non-spin and the proposed imbalanced reserve project? Would there be one bid for both capacity products or separate bids?
- h) How much of the flexibility needs is the movement to 15-minute granularity expected to resolve vs. the imbalance reserve product?
- i) Could the granularity change be done first to inform the need and design of the reserve product?

5. Please provide simulations of the results of the proposal on day-ahead and real-time prices so parties can evaluate the impacts.