Stakeholder Comments Template

Day-Ahead Market Enhancements (DAME) Initiative

This template has been created for submission of stakeholder comments on the revised straw proposal that was published on June 8, 2020. Materials related to this initiative can be found on the ISO website at: http://www.caiso.com/StakeholderProcesses/Day-ahead-market-enhancements.

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on July 13, 2020.

Submitted by	Organization	Date Submitted
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Please provide your organization's overall position on the DAME revised straw proposal:

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

The Public Advocates Office at the California Public Utilities Commission is California's independent consumer advocate with a mandate to obtain the lowest possible rates for utility service consistent with reliable and safe service levels, and the state's environmental goals.[1]

The Public Advocates Office submits comments and recommendations on the California Independent System Operator's (CAISO) Day Ahead Market Enhancements (DAME) initiative.

[1] California Public Utilities (Cal. Pub. Util.) Code § 309.5.

Summary of Recommendations

1. The CAISO should retain the current Residual Unit Commitment (RUC) procurement process until it develops an alternative mechanism to improve the efficiency of the day ahead market (DAM). The current proposal to remove the RUC process would increase ratepayer costs in the absence of any clearly defined benefits and would necessitate overhauling the resource adequacy (RA) framework in California.
2. The CAISO should a) further explain the purpose of the real-time energy offer cap for resources awarded upward reliability capacity and imbalance reserves, b) evaluate other economic alternatives for price caps such as long-term capacity contracts for the upward reliability capacity, c) perform economic studies to evaluate the impact on the overall prices for short-term and long-term imbalance reserve and provide these studies results to stakeholders for evaluation.
3. The CAISO should further explain its proposed values for the bid cap and market power mitigation bid cap of new capacity products.

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

1. Updated market formulation:

The CAISO proposes to eliminate the RUC procurement process and instead proposes to establish four new products, namely the Residual Capacity Up/Down (RCU/RCD)[2] and Imbalance Reserves Up/Down (IRU/IRD),[3] to procure capacity products similar to what the RUC process currently provides.[4] The RUC today is an Integrated Forward Market (IFM) process[5] that runs immediately after the Day-Ahead Market (DAM) closes each day. The CAISO uses RUC to designate incremental capacity, to supplement the energy awarded in the DAM process, and to bid into the Real-Time Market (RTM) to meet uncertain changes in load due to forecast error and

[2] RCU/RCD is a proposed CAISO market-procured capacity product that would award resources for increasing or decreasing their generation in the real-time market, procured at an amount equal to the difference of bid-in load and CAISO forecasted load. Day Ahead Market Enhancements Revised Straw Proposal, June 8, 2020 (Revised Straw Proposal), p. 4.
[3] IRU/IRD is a proposed CAISO market-procured capacity product that would award resources for increasing or decreasing their generation in the real-time market, procured at an amount to adjust for forecast error and variable resource generation uncertainty. Revised Straw Proposal, p. 4.
[4] Revised Straw Proposal, p. 13.
[5] The IFM currently procures energy, ancillary services, and RUC volumes to serve load in the next day on an hourly basis. The Day-Ahead Market is a major process within the IFM.

generation uncertainty.[6] The majority of RUC capacity is required by RA Must Offer Obligations (MOO) to bid in at $0/megawatt-hour ($/MWh), although resources are paid the locational marginal price (LMP)[7] of real-time energy if the CAISO dispatches the resource.[8] The CAISO states that removing the RUC process and procuring capacity within the DAM will improve market efficiency by valuing a resource's ability to dispatch at different amounts between the DAM and the RTM and to allow resources to choose different products to offer at different values.[9] Resources would bid to provide their RCU/RCD and IRU/IRD products at a $/MWh price and those bids will be valued by the market at their own specific nodal LMPs,[10] just as energy bids and pricing are currently designed.[11]

The Public Advocates Office opposes the CAISO's proposal to create RCU/RCD and IRU/IRD products to replace RUC products because it will increase the costs to ratepayers with no additional benefits. At present, RA resources must have a $0/MWh RUC Availability Bid according to the CAISO's MOO rules.[12] This obligation to bid at $0/MWh eliminates the possibility for a resource to recover any particular costs associated with being dispatched through RUC. Appropriately, RA resources instead seek to recover the costs of operating in RUC through contracted capacity rates, contracted firm energy rates, or through Commission-approved cost recovery for utility-owned generation. The CAISO's proposal would allow resources to earn revenues for providing RCU/RCD and IRU/IRD (products essentially provided by RUC currently) at the DAM on top of the existing means of cost recovery that assume RUC payments will be $0/MWh. This would mean that ratepayers would pay for RA contract rates[13] that include the cost of providing bid-in capacity at $0/MWh in RUC as well as the additional costs of paying for

[6] Revised Straw Proposal, p. 12, and CAISO 2018 Annual Report on Market Issues & Performance, May 2019 (CAISO 2018 Annual Report), p. 75.
[7] The LMP is the market price of energy at specific geographic nodes across the CAISO grid. It is made up of the marginal cost of energy needed to serve load on the grid and may be adjusted by transmission congestion costs. Resource energy bids at or below the LMP are typically awarded dispatch by CAISO.
[8] CAISO 2018 Annual Report, p. 77.
[9] Revised Straw Proposal, pp. 12-13.
[10] Revised Straw Proposal, p. 27.
[11] This design of paying for capacity that may or may not be awarded energy is similar to how ancillary services currently work. However, ancillary services work concurrently with RA obligations and RA costs are designed with the ancillary services system in mind.
[12] CAISO Business Practice Manual for Market Operations V65, Section 6.7.2.7 and CAISO Tariff 40.6.4.2. Also see acknowledgement that RA resources are obligated to provide RUC, Commission 2018 Resource Adequacy Report, August 2019, p. 21.
[13] Contract rates or other means of cost recovery, such as Commission-approved operations and capacity costs for utility-owned facilities.

RCU/RCD and IRU/IRD products.[14] In short, ratepayers may pay for a resource twice which will significantly increase costs with no clearly defined increase in ratepayer benefits.

During the course of the stakeholder initiative, the CAISO did not provide an estimate of what the $/MWh rates may be for RCU/RCD and IRU/IRD, other than to propose a bid cap of $247/MWh with no apparent basis for that figure.[15] The CAISO proposes that these products also be based on nodal prices and valued by location,[16] which reduces the market's capability to be competitive since constraints and reliability needs may reduce the pool of efficient providers of RCU/RCD and IRU/IRD.

Adding RCU/RCD and IRU/IRD to the DAM and removing the RUC would require a significant adjustment to the CAISO Tariff's MOO rules and re-negotiation of all RA contracts. It would also require re-evaluations of the cost recovery mechanisms for all utility-owned resources used for RA. Contract negotiations are often costly and lengthy processes and in many cases a Seller may not be obligated to re-negotiate an active contract's rate. The CAISO should retain its current RUC procurement process since its removal is not compatible with the existing RA framework and would increase ratepayer costs. The CAISO should explore alternative mechanisms to allow for market or off-market tools to account for forecast uncertainties that leave the RUC process in place.

2. Accounting for energy offer cost in upward capacity procurement:

The Public Advocates Office supports the CAISO's proposal to implement rules that distinguish resources with high energy costs when awarding resources for upward reliability capacity[17] and imbalance reserves.[18] The Public Advocates Office recommends the CAISO provide stakeholders with data identifying the resources with high energy costs in order to evaluate other energy resource alternatives with lower rates to ratepayers.

The CAISO also proposes to set a real-time energy offer cap for resources awarded upward reliability capacity and imbalance reserves. The CAISO states that the real-time energy offer cap

[14] This issue was also raised previously by the California Public Utilities Commission (Commission). Commission Stakeholder Comments on Day-Ahead Market Enhancements Straw Proposal, April 1, 2020, p. 2.
[15] Revised Straw Proposal, p. 29.
[16] Revised Straw Proposal, pp. 19 and 27.
[17] Capacity is the number of units that can be produced.
[18] Revised Straw Proposal, p. 23.

would be set on an hourly basis before the DAM closes to give scheduling coordinators sufficient time to adjust capacity bids.[19]

The Public Advocates Office recommends the following:

- The CAISO should explain the purpose of its offer cap proposal for resources awarded upward reliability capacity and imbalance reserves.
- The CAISO should evaluate other economic alternatives such as long-term capacity contracts and compare those alternatives with its current proposal of offer price caps on resources awarded upward reliability capacity. Furthermore, the CAISO should provide stakeholders with its economic evaluations and its analysis of impact on ratepayers.
- The CAISO should perform economic studies to evaluate the impact of the overall prices for short-term and long-term imbalance reserves and provide these studies to stakeholders for evaluation.

The CAISO proposes that suppliers offering upward capacity in the DAM should bid their cost of making the resource available in real-time when bidding to provide upward capacity in the DAM.[20] However, if two resources have the same real-time availability bid, but different energy costs, the optimization cannot differentiate between the two resources.[21] In this situation, the CAISO proposes the optimal solution would be to award the resource with the lowest underlying energy cost because it would be most cost-effective if needed in real-time.[22]

The Public Advocates supports the CAISO's proposal to award the resources with the lowest energy cost when two different resources bid-in the same cost for making their resource available in real-time to provide upward capacity in the DAM.

3. Variable energy resources:

The Public Advocates Office does not have comments on this proposal at this time.

[19] Revised Straw Proposal, p. 23.
[20] Revised Straw Proposal, p. 23.
[21] Revised Straw Proposal, p. 22.
[22] Revised Straw Proposal, p. 22.

4. Market power mitigation for reliability capacity and imbalance reserves:

The CAISO proposes to cap reliability capacity and imbalance reserve offers at $247/MWh.[23] To mitigate market power, the CAISO's proposal mitigates "capacity bids to the maximum of either $30/MWh or $30/MWh plus the resource's default energy bid minus the real-time energy offer cap."[24] However, the origins of the CAISO's proposed price caps are unclear and the $247/MWh and $30/MWH caps also should be clarified and justified. The June 15 and 17, 2020 Day Ahead Market Enhancements Revised Straw Proposal Stakeholder Meeting presentation slides state that the $247/MWh, "[r]eflects the FRP [Flexible Ramping Product] relaxation price."[25] The CAISO should explain and justify why the $247/MWh is a reasonable cap for the proposed capacity products.

The mitigation bid caps are set at $30/MWh on the basis that, "$30 is greater than the 90th percentile historical spinning reserve price, which is assumed a competitive capacity price that reflects the cost of being available in the real-time market."[26] First, it is not clear why prices for ancillary services are used to compare the price of reliability capacity and imbalance reserve, given that reliability capacity and imbalance reserves provide different services with different objectives compared to ancillary services. Second, using the same logic (and the data in Figure 7 of the Revised Straw Proposal), $25 is also greater than the 90th percentile by month and would be an equally adequate and less costly cutoff.[27] However, the reasoning behind the proposal's $30 market power mitigated price cap is not clearly explained. Additionally, the hypothetical costs of these resources in the future are unclear and lack an empirical basis. The CAISO should not propose energy prices without adequate support, and likewise should not establish mitigation or cap values until actual or reasonably estimated value data is available. The next proposal in this initiative should include specific values for bid caps only if supported by actual or modeled data.

[23] Revised Straw Proposal, p. 29.
[24] Revised Straw Proposal, p. 29.
[25] The FRP is an upward and downward RTM ramping capability product which the CAISO can award to make final adjustments to generation before actual dispatch. For quote citation, see: Day Ahead Market Enhancements Revised Straw Proposal Presentation at the CAISO Stakeholder Meeting, p 50.
[26] Revised Straw Proposal, p. 29.
[27] Revised Straw Proposal, p. 30. Note that the 90th percentile values in the hourly distributions for hours 19 and 20 of Figure 8 (p. 31) do exceed $25.

5. **Please include additional comments including considerations for other possible solutions or concerns to any of the above topics:**

   The Public Advocates Office does not have additional comments at this time.