California ISO

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
Carrie Bentley *Cbentley@gridwell.com*	*Western Power Trading Forum*	*July 13, 2020*

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

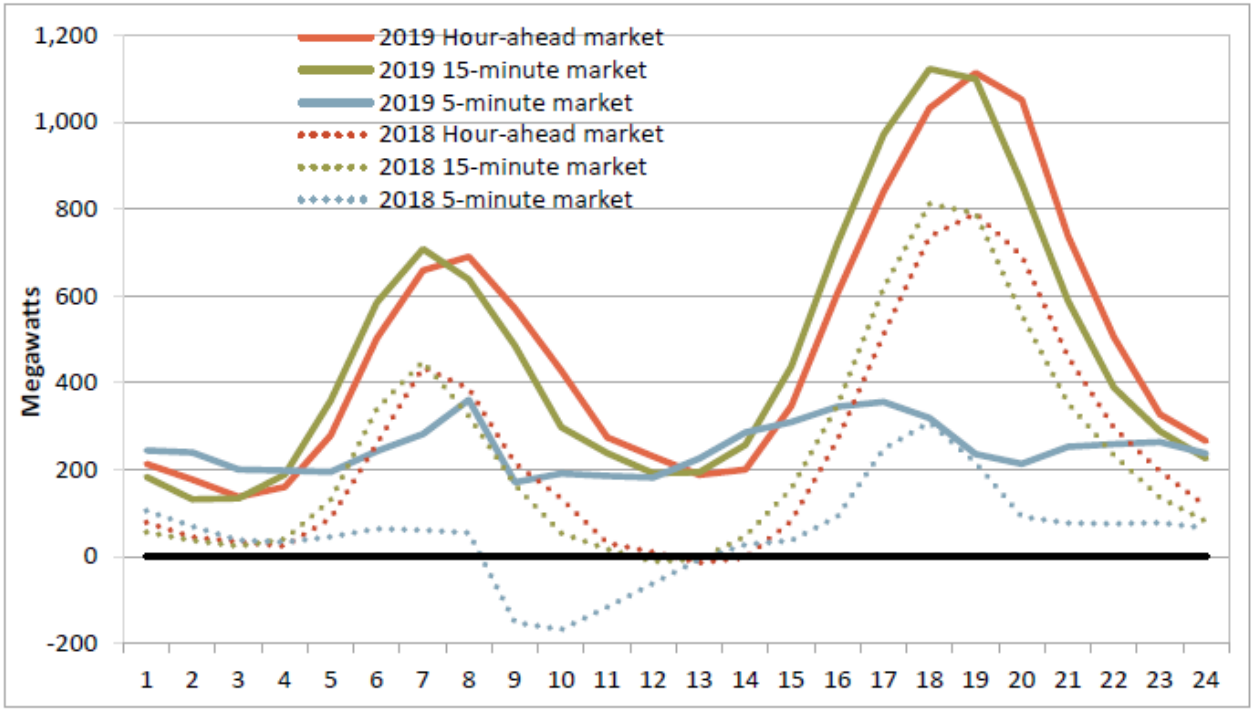
- ☐ Support
- ☒ Support w/ caveats
- ☐ Oppose
- ☐ Oppose w/ caveats
- ☐ No position

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

WPTF supports a *phased* approach; whereby the CAISO prioritizes the design and implementation of the imbalance product prior to finalizing the design and decision to move forward with a combined IFM/RUC. Throughout this stakeholder initiative, discussions have indicated broad consensus for the need for an imbalance reserve product. Today, operators will often issue exceptional dispatches or conform (bias) the forecasted real-time load to ensure sufficient resources are available to address ramping and load following needs. Given that one of the main goals for this policy is to decrease operator intervention, implementing an imbalance reserve product will result in a significant portion of the out of market operator actions being priced within the market, and thus improving market efficiencies. WPTF supports the CAISO moving forward with designing a day-ahead imbalance reserve product and ensuring it will be deliverable when and

where it is needed. WPTF notes operator intervention has remained high and that this can be directly tied to the need for an imbalance reserve product in the day-ahead market and for the real-time flexible ramping product to be improved. WPTF strongly supports the CAISO prioritizing these items.

Average hourly load adjustment (Q4 2018 – Q4 2019)



Source: DMM Q4 2019 Report, Page 51

Furthermore, as noted in WPTF's March 26, 2020 stakeholder comments on the February 7 straw proposal, the CAISO has not demonstrated that having a sequential RUC process is leading to any significant inefficiencies. WPTF asked for the CAISO to provide data or an explanation supporting claims of why a standard market design among the majority of ISO's has suddenly been deemed unacceptable. Thus far the only response was to note our prior comment set did not contain data on RUC BCR and that perhaps there were hidden inefficiencies in these out-of-market costs.

RUC BCR occurs when a unit is committed in RUC and the resource's RUC revenues plus subsequent real-time revenues cannot cover the resource's incremental energy offer and minimum load and start-up costs. WPTF intentionally did not include BCR RUC data in our prior comment set. There are two main issues with looking at public RUC BCR data to determine RUC efficiency. First, looking at this bucket in isolation will not determine whether RUC is efficient or inefficient because short-start resource BCR is included in all public data. Because it is the real-time market making the decision to issue a binding commitment for short-start units, this BCR amount would be incurred regardless of RUC commitment and so inappropriate to be considered part of any RUC inefficiency.

Second, and perhaps more importantly, many of the CAISO's proposals for a combined IFM/RUC, including the latest market formulation, will not lead to a decrease in RUC BCR or will end up shifting RUC BCR to day-ahead BCR depending on the proposal. For example, in the latest market formulation the CAISO's example had resources at a 0 Pmin, which is not realistic. If the CAISO had included Pmin values and commitment costs in their example then WPTF is extremely concerned this would lead to more RUC BCR, not less. This is because under the proposal both G2 and G3 would end up being committed. This is less efficient than today, whereby only G2 would get committed. Although we note there are some issues with the example, as discussed below.

Thus, if the CAISO continues to move forward with an integrated IFM/RUC on the grounds that the current construct is inefficient, WPTF asks for a quantification of this inefficiency and what it is compared to any future market design.

1. Updated market formulation:

While WPTF does not support moving forward with combined IFM/RUC until the imbalance product is implemented and the market can be reassessed; we offer the following comments on the CAISO's proposed solution presented to stakeholders at the beginning of the July 17th stakeholder call.

The updated formulation is interesting, because if you change the example such that each resource has a realistic Pmin and commitments costs, the proposed formulation could be more **or** less efficient than the existing market design. If these resources were both long-start resources and had any sort of commitment costs, the initial first pass would completely change. WPTF asks that if the CAISO continue to explore this option that the next example provide an illustration of how commitment costs will be considered and have a comparison to the existing market design.

That said, if we take the example as realistic, we agree with comments made by other stakeholders on the call and believe it does not yield an efficient solution. The first pass of the three-pass proposal actually results in the most efficient dispatch of the resources and least cost solution. The subsequent passes essentially unwind what was the optimal dispatch and results in a less efficient dispatch and more costly result. The unwinding of the optimal dispatch occurs because the second pass only compares energy offers between virtual supply and physical resources without consideration of the additional RCU capacity that would have to be required. Take for example the last 25 MWs of energy that the example clears. In the first pass, the 25 MWs was awarded to a physical unit bid in at $25/MWh. In the second pass, the $25/MWh energy from the physical unit is displaced by the $24/MWh virtual supply. However, at the end of the second pass, it is then determined that because the virtual supply displaced the physical, the market would need an additional 25 MWs of RCU. The additional cost of the 25 MWs of RCU was not considered in the second pass when the physical unit was displaced. In the end, the market incurs a cost of $3,300 in

the last pass (compared to $3,175 in the first pass) and foregoes the more optimal dispatch solution of the first pass.

Furthermore, the latest proposal will actually cause in-market actions to result in out-of-market costs, which defeats the purpose of mitigating out-of-market actions. WPTF suspects the proposed market formulation is likely more inefficient than committing additional long start units through the current RUC process. This effect stems from the element of the proposal whereby the unit commitment of physical resources will be fixed based on the first pass. The CAISO's example highlights how virtual supply may displace energy from physical units in the second pass. However, the CAISO's proposal would still have the physical units that were displaced by virtual supply committed and operating at minimum load. The CAISO's example assumes a 0 MW minimum load level for the physical units. In reality, the physical units that were displaced by virtual supply will be sitting at non-zero minimum load levels. Units sitting at minimum load levels in the market has the effect of lowering the energy prices since it reduces the amount of incremental energy needed to clear the market. With the market clearing lower on the supply stack, prices will be lower. Both the additional commitment of resources at or near Pmin and the lower prices will cause mores units sitting at minimum load to not fully recover their minimum load costs. Thus, the proposal could actually end up increasing the amount of those costs that will need to be recovered through Bid Cost Recovery (e.g., the out-of-market costs).

Thank you for consideration of our comments. WPTF continues to support needed CAISO market improvements.