

SCE Comments – Day Ahead Market Enhancements

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Southern California Edison (SCE) provides these comments on the California Independent System Operator's (CAISO) Third Revised Straw Proposal and meeting on Day Ahead Market Enhancements (DAME).¹

Stakeholders have repeatedly asked numerous questions targeted solely toward understanding the CAISO's proposal. SCE continues to struggle with the need for, and benefit, of this proposal, as noted in many other stakeholders' written comments. SCE echoes the concerns of the CPUC and other stakeholders and asks again for more clarity on the benefits of the proposal, how it will provide benefits beyond the current structure, and why this change is needed. If this proposal is targeting benefits within EDAM, then the CAISO should provide data and support that demonstrates the benefit within that stakeholder initiative. Stakeholders are open to reviewing benefits within other initiatives, however, the CAISO has not addressed demonstrating the benefits within either DAME or EDAM forums.

The CAISO has not justified its proposal

The CAISO claims that long term costs will be reduced through this proposal. The CAISO has not provided any evidence of this and such statements are based on conjecture without analysis. Empirical support is necessary for the CAISO to demonstrate that their proposal is indeed superior to the status quo. It is also necessary under this proposal to determine how to renegotiate contracts to allow for a shift of the Real Time (RT) Must Offer Obligation (MOO) away from existing RA resources, make changes for this new product and how resources are bid into the market, and how revenues from RA contracts will be allocated. None of this would be trivial and should not be undertaken unless a clear benefit has been demonstrated.

Additionally, the CAISO asked stakeholders for input on how to determine costs of its proposal. Without fully understanding the proposal and its benefits, SCE cannot provide any meaningful input. If the CAISO cannot quantify the costs, it begs the question how the CAISO can determine this is an improvement to the status quo and that the change will be beneficial.

The CAISO has not justified its position

SCE does not support the removal of the real-time must offer obligation (RT MOO). This process is a key portion of the existing RA construct and removing it is unjustified and inappropriate. In the end, all

¹ <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Day-ahead-market-enhancements>

reliability issues arise in real-time. How can the CAISO argue, based on any logical framework, that eliminating the RT MOO will improve reliability? Any proposal to eliminate the RT MOO should be abandoned once and for all.

Furthermore, it appears that that imbalance reserves will be procured based on historical imbalances between day-ahead and real-time. There is no guarantee that historical imbalances will be good indications of future imbalances, especially as imbalances have increased in recent years. Applying the MOO only on the IRPs and not in RT could have detrimental impacts to ensuring sufficient supply in the market. Stakeholders are aware of several years of reliability needs being met through the existing RA construct and the RT MOO. With the continued concern shared by multiple stakeholders it seems inappropriate to move forward with a proposal that has so many unanswered questions. Once again, SCE asks the question, why is it necessary to eliminate the RT MOO for RA resources?

The proposal is inefficient regardless of whether the CAISO demonstrates a net benefit

Today, in RUC, the CAISO procures supply to meet the forecast demand at around 90-95%ile² of forecast demand³. The proposal is to procure IRP at 97.5%ile of forecast demand. Subsequently, in RUC, the CAISO will procure the difference between cleared IFM Energy (ignoring cleared IRP) and 90-95%ile of forecast demand. It is not clear how much capacity will be required to meet these tests, if the capacity is available, or if this proposal will instead create artificial scarcity. We ask the CAISO to provide analysis on what this procurement would look like during peak summer conditions.

- **A design of having both IRP and RCP products seems problematic and should be fully vetted**

The need for *both* IRP and RCP products is not clear and has not been demonstrated. According to the CAISO, the need for IRP is driven by two factors (p. 14 of CAISO proposal). The first factor is the granularity difference between day-ahead and real-time markets and the second factor is uncertainty in load forecast. The first factor appears to be related to a concern around ramping and dispatch flexibility of resources, which can be addressed given the increasing amount of energy storage resources on the grid and the existing flexible RA. Therefore, it appears the IRP is solely, or mainly, driven by the need for procuring capacity to cover load forecast uncertainty. It follows then that IRP and RCP products may be designed to fulfill the same need and the two products are interchangeable. If this is the case, the CAISO should simplify the design.

Having both IRP and RCP can cause significant amount of complexity to the markets (e.g., market run performance, market power mitigation, bidding, obligation and non-performance, settlements, etc.). In addition, it can cause significant confusion or even produce conflicting dispatch signals to the resource. For instance, what dispatch signal is the CAISO sending to the resource if it is awarded

² Standard normal distribution. Typical = average.

³ SCE notes that any statistics involves a prediction with some degree of confidence and some corresponding uncertainty. Thus, any argument that both products are needed to meet both forecast and uncertainty, is vacuous. Any single product, forecasted at any level of comfort (in this proposal, 97.5%ile), will provide for forecasted movement with a corresponding level of uncertainty. It is impossible to eliminate uncertainty because the CAISO will never have the full statistical population of possible RT demand outcomes.

for both Imbalance Reserve Up and Reliability Capacity Down in the same interval (or both Imbalance Reserve Down and Reliability Capacity Up in a same interval).

- **The design of a separate real-time market bid cap should be fully vetted**

In its proposal, the CAISO is proposing to implement a real-time energy bid price cap on all resources that receive an imbalance reserve up or reliability capacity up award. This bid cap is separate from the existing bid cap at \$1000/MWh or \$2000/MWh (when it triggers). SCE understands the need for this new bid cap is to account for energy offer cost in upward capacity procurement. While the intention of such consideration seems reasonable, the CAISO should make sure that such design will not create a barrier for a high energy cost resource in participating in the CAISO market. In particular, imposing a single real-time energy bid price cap that applies to all resources may not be feasible. Further, a design should not prevent a resource from bidding its true marginal energy bid cost at all time, even if its energy bid cost is above the proposed real-time energy bid cap. For instance, when the gas market is tight, the cost for gas units in a region can be high and may exceed the proposed predefined bid cap (even if there is no tight condition at the CAISO system). The CAISO should revise its proposal so that a high energy cost resource can participate in the CAISO market. If such bid cap is needed, the CAISO should consider making the proposed bid cap resource-specific, such as the cap will not be under the resource's default energy bid (DEB) that would also include opportunity costs for resources such as energy storage resources.

SCE does not support the proposed treatment of congestion, in general, and for the Imbalance Reserve Product

Ultimately, Imbalance Reserves are capacity, not energy. Based on SCE's understanding of the proposal, the CAISO will treat Imbalance Reserves as producing energy during the optimization. While this allows feasible nodal procurement, it also inappropriately creates "phantom congestion" – that is congestion pricing based on congestion that is not the result of scheduled energy flows. If this is in fact the result of this design, it is entirely inappropriate. This capacity is purchase based on potential outcomes, not actual energy purchases. In effect, it would fundamentally change the market from pricing actual congestion to pricing "potential congestion". This is dramatic, and unjustified, departure from the current understanding of congestion pricing.

Further, the CAISO's own analysis concludes "Imbalance reserve settlement may result in underfunding of CRRs because the CAISO will not collect congestion revenue on the imbalance reserve flow". SCE warns the CAISO against implementing any market design that it knows, ex ante, can create revenue shortfalls.

The entire congestion modeling aspect of Imbalance Reserves should be abandoned. Like Ancillary Services, IRP is a capacity product that does not produce congestion. Concerns about infeasible deliveries should be addressed through zonal (or sub-zonal) requirements that have maximum procurement quantities.

SCE offers an Alternative for the Imbalance Reserve Product

If the CAISO ultimately moves forward with an Imbalance Reserve product, the design requires modification. Similar to the treatment of GHG resources, parties should be allowed to submit one bid to sell to their “local” BA, and at their option, the ability to submit a second bid to sell to “all other” BAs. Like GHG, if parties do not submit a bid to sell to “all other” BAs, then only the Local BA could secure this capacity as Imbalance Reserves.

This modified design provides a framework where capacity, such as RA, can be dedicated to the Imbalance Reserves needs of its local BA, and provides a mechanism where the capacity can choose to not be available to other BAs. While energy from capacity that bid to only sell Imbalance Reserve to the “local” BA would still be available to provide energy to the market at large, it would not be available to provide Imbalance Reserve capacity to others – rather other BAs would need to find a different source of capacity to meet their Imbalance Reserve needs.⁴ This framework also allows for RA bidding rules that could parallel the current RUC bidding rule for RUC. That is, RA units could be required to offer to the CAISO (their local BA) at \$0/MW for Imbalance Reserves (and RUC).

In sum, the CAISO must design a market that better respects and integrates RA resources. If the CAISO implements Imbalance Reserves, a “local” bid and an option to bid a second, “all other” BAs, is a way to better accomplish such RA integration.

The Schedule of this initiative should be aligned with Extended DAM (EDAM) Initiative

As commented in SCE’s prior comments, it appears that the CAISO proposal is largely brought up for addressing potential issues when an EDAM entity(ies) joins the CAISO. The schedule of this initiative should be aligned with the schedule of EDAM Initiative, or even, the DAME process should cease, and the proposal beneficial to an EDAM design should be discussed exclusively in the EDAM forum.

Conclusion

SCE urges CAISO to allow for more stakeholder discussion to fully understand the need for such drastic changes. Further engagement, data, and answers from CAISO are needed to gain support and understanding. Increased market efficiencies and benefits are goals that all stakeholders can get behind. However, there are significant concerns being expressed by a material amount of stakeholders

⁴ It is likely that a similar “two bid” construct will also be needed for RUC as part of the EDAM design.