

# Comments on RDRR Bidding Enhancements – Track 2 Draft Final Proposal

## Department of Market Monitoring

March 25, 2022

### Summary

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the *RDRR Bidding Enhancements – Track 2 Draft Final Proposal*.<sup>1</sup>

In the Draft Final Proposal, the CAISO proposes an approach for discrete reliability demand response resources (RDRRs) to avoid infeasible real-time dispatch. The approach includes automatically rerating their minimum operating level (PMIN) to a value near the upper economic limit and inserting a non-zero minimum load cost calculated from energy bids. Only the small MW range between a discrete resource's rerated PMIN and upper economic limit will be allowed to set price. The CAISO also proposes to raise the size cap for discrete RDRRs from 50 MW to 100 MW, and to allow exceptions to the cap under specific circumstances.

DMM supports CAISO's proposal. The proposal should help to avoid infeasible dispatches of discrete RDRRs and better reflect their physical capabilities in the market. The proposal to consider discrete resources as having a dispatchable range of only 0.1 MW below their upper economic limit in the pricing run should effectively mitigate potential detrimental pricing and reliability impacts of increasing the discrete RDRR size cap. CAISO could further improve RDRR modeling in a future initiative by allowing continuous RDRR resources to submit non-zero minimum load costs.

### Comments

#### I. RDRR "Infeasible Dispatch" and Minimum Load Costs

***DMM supports the CAISO's proposal and efforts to better model the physical capabilities of RDRRs.***

The CAISO proposes that for discrete RDRR without day ahead schedules, the CAISO will automatically adjust the minimum operating limit (PMIN) to a value just below the upper economic limit of the bid. The CAISO then proposes to use existing PMIN rerate technology to calculate minimum load cost as the energy bid price multiplied by the upper economic limit. DMM supports the CAISO's proposed approach as one that may better reflect the physical capabilities of some RDRRs.

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<sup>1</sup> *RDRR Bidding Enhancements – Track 2 Draft Final Proposal*, California ISO, March 11, 2022:

<http://www.caiso.com/InitiativeDocuments/DraftFinalProposal-ReliabilityDemandResponseResourceBiddingEnhancements-Track2.pdf>

DMM agrees that the CAISO's proposal will avoid the perception by the market optimization that discrete RDRRs are "free" to commit, while also avoiding infeasible movements in real-time back and forth between a 0 MW PMIN and the upper economic limit. DMM understands that many or all existing discrete RDRRs do not have a minimum load level less than full output, and that the automatic PMIN rerate proposed by CAISO may reasonably reflect characteristics of those resources.

Although the CAISO's proposal may address issues of infeasible dispatch for the current pool of discrete RDRRs, the proposal does not address potential infeasible dispatches of continuous RDRRs. This is because CAISO does not propose to allow continuous RDRRs to submit non-zero minimum load costs. Therefore, a continuous RDRR resource that may physically have a non-zero minimum operating level will continue to have incentives to register a 0 MW PMIN value in order to try to reflect the actual costs of operating at its non-zero minimum operating level. CAISO could further improve RDRR modeling in a future initiative by allowing continuous RDRR resources to submit non-zero minimum load costs.

## **II. RDRR Registration**

***DMM supports the CAISO's proposal to raise the size cap of discrete RDRR conditional on measures to mitigate the potentially detrimental market impacts of doing so.***

In the Draft Final Proposal, the CAISO proposes to raise the size cap of discrete RDRR from 50 MW to 100 MW. The CAISO is also proposing to allow exceptions to the size cap under certain circumstances. Stakeholders have indicated that such changes are necessary to accommodate resources that cannot be split into smaller resources for operational or safety reasons.

While the CAISO has acknowledged the potentially detrimental market effects of raising the RDRR size cap, the CAISO states that these impacts are mitigated by the proposal to automatically rerate the PMIN and reflect a non-zero estimate of minimum load cost. As such, the proposal to increase the size cap of discrete RDRR is conditional on the proposal to automatically rerate PMIN and construct an estimate of minimum load cost.

DMM appreciates the CAISO's consideration of the potential market impacts of raising the discrete RDRR size cap in the absence of any mitigating measures. The CAISO acknowledges that when a discrete resource sets prices in the pricing run, it will often set a higher price than the price that would be set by the most expensive continuous resource dispatched in the scheduling run based on its marginal cost. The CAISO further acknowledges that this inefficiency will create incentives for some continuous resources to deviate from dispatch instructions, potentially leading to reliability issues. As DMM noted in previous comments, increasing the 50 MW cap on discrete RDRR would exacerbate the detrimental impacts that allowing discrete resources to set price has on incentives for other continuous resources to follow ISO dispatch.

DMM agrees that when discrete resources are considered to have a dispatchable range of only 0.1 MW below their upper economic limit in both the pricing and scheduling run, the detrimental pricing and reliability impacts described above may be mitigated. As such, DMM supports the CAISO's proposal.