## Comments on Demand and Distributed Energy Market Integration

#### **Department of Market Monitoring**

February 21, 2025

#### Summary

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the *Demand and Distributed Energy Market Integration Working Group* dated February 5, 2025.<sup>1</sup> DMM agrees with the outline of the working group principles. The ISO proposes several working group topics for scoping, including several from the 2024 Policy Catalog. DMM offers comments on the following four topics:

- Minimum on time for reliability demand response. DMM supports allowing for increased minimum on times for reliability demand response resources (RDRR), to the extent this may be needed to more accurately reflect physical operating characteristics of RDRR. However, DMM does not support the use of longer minimum run times to decrease the likelihood of RDRR dispatch.
- **Discrete dispatch size limits for reliability demand response.** DMM supports the removal of discrete dispatch size limits for RDRR, to the extent this may be needed to more accurately reflect RDRR physical operating characteristics.
- **Baseline methodologies.** Only five of the 57 current baseline methodologies are currently used. DMM cautions against adding additional baseline methodologies that take resources to develop, introduce additional potential for error in calculation, and may ultimately go unused.
- **Real-time load bidding.** DMM supports enhancements to real-time load bidding functionality, for load resources that are able to respond to real-time economic signals. This would increase market reliability and efficiency.

### Comments

# DMM supports allowing longer minimum on times as needed to reflect physical characteristics of RDRR

DMM supports allowing RDRR to have a minimum on time that exceeds one hour where a longer minimum on time is needed to accurately reflect physical limitations. However, DMM does not support the use of longer minimum run times that are inconsistent with RDRR physical limitations, and only serve to decrease the likelihood of dispatch.

In June 2023, the California Public Utilities Commission (CPUC) clarified that RDRRs may be enabled during an Energy Emergency Alert (EEA) Watch, rather than only an EEA 2 or EEA 3. In response,

<sup>&</sup>lt;sup>1</sup> Demand and Distributed Energy Market Working Group, CAISO, February 5, 2025: <u>https://stakeholdercenter.caiso.com/InitiativeDocuments/Presentation-Demand-Distributed-Energy-Market-Integration-Feb-5-2025.pdf</u>

stakeholders voiced concerns that RDRR may be dispatched more frequently, which could lead to customer attrition.<sup>2</sup>

DMM's understanding is that if RDRR are able to reflect longer minimum on times, discrete RDRR may be less likely to be economically dispatched because the real-time market optimization considers how long resources must remain on after dispatch. Reflecting longer minimum on times may also provide additional information to operators when making exceptional dispatch decisions, but may not ultimately affect the likelihood of dispatch when RDRR are needed in emergency situations. In either case however, the proposed change ensures that when RDRR are started, they will be called for a minimum time that may more closely represent the characteristics of the resource.

DMM agrees that allowing RDRR to have longer minimum on times provides an operational benefit if the parameters accurately reflect the characteristics of these resources. However, DMM highlights that scheduling coordinators and the ISO need to ensure the accuracy of reported minimum on time parameters. It is important that scheduling coordinators submit accurate information, and that RDRR do not submit inaccurately high minimum on times in the ISO's Master File for the purpose of avoiding market dispatch.

# DMM supports removing RDRR discrete dispatch size limits as needed to reflect physical characteristics of RDRR

Under current rules, RDRR using the discrete dispatch option cannot exceed 100 MW in size. DMM supports the removal of RDRR discrete dispatch size limits if needed to more accurately reflect physical resource characteristics. To the extent that it allows resources to more accurately reflect resources' physical characteristics, removing the discrete dispatch size limits for RDRR will allow resources to potentially avoid infeasible dispatch. Such infeasible dispatch may occur on large discrete RDRR that may not be continuously dispatchable, but are confined to the continuous dispatch option due to their size. Additionally, all resources have a tariff obligation to accurately reflect their characteristics to the market, and the removal of the discrete dispatch size limit will facilitate resources better reflecting their true characteristics.

In the RDRR Bidding Enhancements Phase 2 initiative, DMM expressed concern that the removal of RDRR discrete dispatch size limits could lead to detrimental market impacts in the market's pricing run.<sup>3</sup> However, this initiative resulted in FERC approved tariff modifications to modeling discrete RDRR that alleviate the market pricing concerns.<sup>4</sup> With these enhancements, DMM supports the removal of the

<sup>&</sup>lt;sup>2</sup> CPUC Decision (D.) 23-06-029, pp 93-94: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M513/K132/513132432.PDF

<sup>&</sup>lt;sup>3</sup> Comments on RDRR Bidding Enhancements – Track 2 Draft Final Proposal, CAISO DMM, March 25, 2022: <u>https://www.caiso.com/Documents/DMM-Comments-RDRR-Bidding-Enhancements-Track2-Draft-Final-Proposal-Mar-25-2022.pdf</u>

<sup>&</sup>lt;sup>4</sup> Letter Order Accepting Tariff Amendment – Reliability Demand Response Resource, FERC, ER22-2700, October 24, 2022: <u>http://www.caiso.com/Documents/Oct24-2022-LetterOrderAcceptingReliabilityDemandResponse</u> <u>ResourceTariffAmendment-ER22-2700.pdf</u>

discrete RDRR discrete dispatch size limits to allow resources to better reflect their capabilities to the market.

### The ISO should carefully consider whether there is a need for additional baseline methodologies

The ISO currently offers 57 baseline methodologies to demand response resources.<sup>5</sup> Currently, only five of the 57 baseline methodologies are used. Table 1 provides a breakdown by number of resources using each baseline type. The majority of baseline methodologies in use are day matching, making up 99 percent of all demand response resources' selected baseline methodology.

Baseline methodology	Count
Day Matching 10/10	147
Day Matching 5/10 (Residential Only)	10
Day Matching Combined	972
Meter Generation Output	11
PDR-LSR	1
Grand Total	1,141

### Table 1 – Baseline methodologies used in September 2024

DMM cautions against adding additional baseline methodologies unless absolutely necessary. Additional baseline methodologies can be prone to errors, miscalculations, and potential strategic gaming. Additionally, the development of new baseline methodologies requires staff time and resources. DMM recommends the ISO carefully consider the need for additional methodologies, as the current set of options is underutilized, and the day matching methods appear robust for the majority of resources.

### DMM supports enhancements to real-time load bidding functionality

DMM supports enhancements to real-time load bidding functionality for load resources that are able to respond to real-time economic signals. Currently, load can bid economically in the day-ahead market, but all load is served in real-time without regard to price. Similarly, there is no ability in real-time for load to respond to economic signals to increase consumption. This is true even for participating load resources that may be willing and able to respond to real-time economic signals to increase consumption. DMM supports real-time bidding functionality for participating load resources, to provide for greater system flexibility and additional slope to the demand curve.

System reliability would be increased from real-time load bidding, by allowing for uneconomical load to not be scheduled in the real-time. In these cases, uneconomical load would not need to be served in real-time, allowing for existing online capacity to meet the needs of the system without additional supply. The additional supply could then be held as reserves for tight conditions in the possibility such conditions arise. Similarly, some load could increase in response to economic signals during potential overgeneration conditions.

<sup>&</sup>lt;sup>5</sup> Business Practice Manual for Demand Response, CAISO, Version 12, January 6, 2025: https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Demand%20Response

Real-time load bidding would reduce system costs, as uneconomic load would not need to be served in real-time, thus not dispatching the next marginal unit and increasing system costs. DMM recommends the ISO enhance real-time load bidding functionality for the aforementioned reasons.