Reliability Demand Response Resource (RDRR) Minimum On Time (MOT) Change

Stakeholder Meeting
December 20, 2023
Recent changes to the Intellor platform, specifically around audio while joining meetings

• The “call me” feature is no longer being offered when joining Operator assisted meetings. There is still a Computer Audio option and a Dial-In audio option. Those Dial In options will be provided in the meeting details.

• We are actively working with Intellor on alternative options as we understand that this isn’t ideal and there have been other challenges with Operator Assisted Webex meetings. We hope to have a more permanent solution in early January. I hope to provide updates at the beginning of the year.
Reminders

• This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO’s permission.

• Miscellaneous Stakeholder Meetings > Reliability Demand Response Resource Minimum On Time

• If you need technical assistance during the meeting, please send a chat to the event producer.
Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon located on the bottom of your screen.

**Note**: #2 only works if you dialed into the meeting.
- Please remember to state your name and affiliation before making your comment.

- You may also send your question via chat to either Brenda Corona or to all panelists.
Today’s Objectives

• Introduce RDRR minimum on time narrowly scoped policy effort and its expedited stakeholder process

• Review proposed policy and Tariff changes

• Provide opportunity to obtain feedback from stakeholders on the initiative
## Today’s agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenters</th>
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<tr>
<td>9:00 – 9:10</td>
<td>Welcome + today’s objective and agenda</td>
<td>Brenda Corona</td>
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<tr>
<td>9:10 – 9:25</td>
<td>Background and initiative objectives</td>
<td>Jill Powers</td>
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<td>9:25 – 9:35</td>
<td>Proposed policy change</td>
<td>Jill Powers</td>
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<td>9:35 – 9:45</td>
<td>Proposed tariff change and process</td>
<td>Bill Weaver</td>
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<td>9:45 – 9:50</td>
<td>Timeline</td>
<td>Jill Powers</td>
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<tr>
<td>9:50 – 10:00</td>
<td>Wrap-up + next steps</td>
<td>Brenda Corona</td>
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We are here

• Issue paper/Draft Final Proposal posted on Dec 4, 2023
• Comments were due Dec 18, 2023
Background and Initiative Objectives
Fulfilling the terms of the CPUC settlement *Pertaining to Emergency Triggered Demand Response Programs*, the CAISO developed the RDRR product.

- The RDRR policy includes a set of dispatch parameters that has to be met by the resource including:
  - reaching its full curtailment in no longer than 40-minutes;
  - ability to respond to a length of dispatch (aka the Sustained Response Period) for up to four (4) hours per event; and
  - a minimum on time no greater than one (1) hour.

- CAISO operators have the ability to either enable RDRR bids for optimal market dispatch within the real-time market or to manually “force” a response through an Exceptional Dispatch.
  - initial design only accommodated bid enablement into the Real-Time Dispatch (RTD) process with an advisory horizon extending approximately sixty-five minutes.
  - Only considering these resources in RTD required them to have a more restrictive startup and minimum on time.
Background: changes to the 2014 RDRR policy implementation

- In its 2021 Summer Readiness initiative, the CAISO proposed and obtained FERC approval to dispatch RDRRs in real-time pre-dispatch (RTPD).
  - Allows for consideration in the Short-Term Unit Commitment (STUC) process.
  - Extends dispatch optimization time horizon of up to 255 minutes.

- Now that RDRRs are enabled into RTPD, there is flexibility as to what the resources’ minimum on time could be within limits.
Background: stakeholder concerns with dispatch order clarification

• The June CPUC resource adequacy (RA) decision clarified that the CAISO is allowed to use RDRR upon declaration of an Energy Emergency Alert (EEA) Watch.
  o Enablement of RDRR bids before an EEA 1 allows the real-time market to optimize them based on their operational characteristics and economic bids.

• Following the decision, stakeholders expressed concern regarding increased chances of economic dispatch which could potentially result in attrition of customers from their retail programs, resulting in reduced RDRR capacity.

• To mitigate these concerns, stakeholders have requested that the CAISO allow an RDRR to reflect a minimum on time greater than one hour.
  o More accurately reflecting its operation in CAISO’s market optimization and dispatch.
RDRR Minimum On [Run] Time change requires Tariff amendment

4.13.5.3 Dispatch Parameters for RDRRs
Each Reliability Demand Response Resource shall be capable of reaching its maximum Load curtailment within forty (40) minutes after it receives a Dispatch Instruction, and shall be capable of providing Demand Response Services for at least four (4) consecutive hours per Demand Response Event. Each Reliability Demand Response Resource shall have a minimum run time of no more than one (1) hour.

- Tariff changes impacting RDRR policy requires approval from the CAISO Board of Governors and WEIM Governing Body (joint authority with the BOG).

- Through this narrowly scoped stakeholder initiative a new requirement to more effectively reflect an RDRR’s operational minimum on time (MOT) will be proposed.

- Narrowly scoping the initiative will expedite the stakeholder process.
Initiative Objectives

This initiative is being undertaken to:

1. Provide operational benefit by more accurately reflecting RDRRs’ minimum on time in the markets during stressed conditions;

2. Maintain the preferred operational dispatch order of RDRRs directed by the CPUC allowing CAISO “…to use RDRR, as an RA resource, for economic or exceptional dispatch upon the declaration of a day-of Energy Emergency Alert (“EEA”) Watch, or when a day-ahead EEA Watch persists in the day of; and

3. Mitigate concerns with continued participation in the retail programs integrated as RDRRs and retain demand reduction capacity they provide.
Proposed policy change
Proposed change removes current minimum on time restriction for RDRRs

The CAISO proposes that a RDRR have a minimum on time that combined with its Start-Up Time does not exceed 255 minutes.

- Aligns with the definition established for a Short Start Unit.
- Ensures that RDRRs minimum on time remains recognized in the Short-Term Unit Commitment (STUC) process.*

- Allows for flexibility as to how the resource minimum on time is characterized without specifically requiring a maximum.
- Dispatch of the resource will remain in RTPD.
- RDRR will not be committed in STUC.
- STUC will recognize minimum on time of dispatched RDRR in the consideration of other unit commitments.

*emphasized for clarification
Proposed tariff change and process
Tariff modification proposed

4.13.5.3 Dispatch Parameters for RDRRs
Each Reliability Demand Response Resource shall be capable of reaching its maximum Load curtailment within forty (40) minutes after it receives a Dispatch Instruction, and shall be capable of providing Demand Response Services for at least four (4) consecutive hours per Demand Response Event. Each Reliability Demand Response Resource shall have a combined Start-Up Time and minimum on time less than or equal to 255 minutes, minimum run time of no more than one (1) hour.

• The CAISO proposes to request that this tariff modification become effective by summer 2024.
Comments received from Stakeholders

- Comments were generally supportive of policy change to increase the minimum on time for RDRR.
  - Identified need for resources operational characteristics to be more accurately reflected when optimized by the market if enabled during EEA Watch.

- Frequency of RDRR dispatch remained a concern as a result of the clarified dispatch order.
  - Prefer greater discretion in their use.

- Increased length of dispatch due to longer MOT also was a concern.
  - Prefer dispatch length be dependent on emergency conditions instead of MOT.

- Modification to proposed tariff language suggested.
  - Adding commitment and dispatching requirements in section
Accelerated stakeholder timeline to obtain approval in February

<table>
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<tr>
<th>Date</th>
<th>Milestone</th>
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<tbody>
<tr>
<td><em>December 7</em></td>
<td>Publish consolidated Issue/Draft Final Proposal paper with proposed tariff amendment included</td>
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<tr>
<td><em>December 18</em></td>
<td>Comments due on white paper and tariff amendment</td>
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<tr>
<td>December 20</td>
<td>Stakeholder call</td>
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<tr>
<td>January</td>
<td>Additional time to address stakeholder comments</td>
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<tr>
<td><em>February 3</em></td>
<td>CAISO Board and WEIM Governing Body approval request</td>
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<tr>
<td>February</td>
<td>Upon approval, file tariff amendment with FERC</td>
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• **Energy Matters** blog provides timely insights into ISO grid and market operations as well as other industry-related news

http://www.caiso.com/about/Pages/Blog/default.aspx.
For reference

• Visit miscellaneous stakeholder initiative section for more information:
  https://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx

• If you have any questions, please contact Brenda Corona at bcorona@caiso.com or at isostakeholderaffairs@caiso.com

HAPPY Holidays!
Appendix
### RDRR CAISO characteristics: Masterfile Name, Code and Description

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
<th>Unit</th>
<th>Description</th>
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<tbody>
<tr>
<td>Start-up Time</td>
<td>STRT_STARTUP_TIME</td>
<td>minutes</td>
<td>Startup Time is the time (in minutes) it takes a resource to achieve PMin from an off-line position</td>
</tr>
<tr>
<td>Minimum Generation Capacity</td>
<td>MIN_GEN</td>
<td>MW</td>
<td>For a Generating Unit, the minimum sustained operating level (Pmin or plant minimum) at which it can operate at a continuous level. For DR resources - the smallest increment that can be curtailed.</td>
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<tr>
<td>Maximum Ramp Rate</td>
<td>MAX_RR</td>
<td>MW/minute</td>
<td>Represents the fastest Best Operating Ramp Rate in the RAMP curve</td>
</tr>
<tr>
<td>Minimum On Time</td>
<td>MIN_ON</td>
<td>MW</td>
<td>The minimum amount of time that a Generating Unit must stay on-line after starting up and reaching PMin, prior to being shut down, due to physical operating constraints. If no constraint, put zero (0). For DR resources - Minimum amount of time the DR resource can maintain a curtailment, once called to be curtailed.</td>
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- [GRDTand IRDT definitions document link](#)
Reference Material

- Reliability Demand Response Product (RDRP) policy initiative [web page link](https://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx)
- Miscellaneous Meetings > Reliability Demand Response Resource Minimum On Time: [https://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx](https://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx)
- March 19, 2021 Final Report at page 33, paragraph 3 [Summer 2021 market enhancement final proposal link](https://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx)
- CPUC decision D.23-06-029 [document link](https://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx), at p. 96