

UPDATE ON ADDING HDR RESOURCES TO THE EOSCA LIST

Demand Response Working Group

January 30, 2018

Objective

- To provide an update on the IESO's proposal to include the standby and activation of Hourly Demand Response (HDR) resources as control actions on the Emergency Operating State Control Actions (EOSCA) list for the 2018 Summer Commitment Period

Overview of EOSCA List

- The EOSCA list contains control actions that are available to the IESO leading up to and during an emergency operating state
 - Allows the IESO to take “out-of-market” actions to maintain reliability
 - The complete list can be found in Market Manual 7.1, Appendix B
- Before issuing an Energy Emergency Alert Level 1 (EEA-1), the IESO will utilize all available control actions listed in the table prior to the step where an EEA-1 is issued. The list contains:
 - Actions to notify market participants of expected and/or actual conditions
 - Actions to help mitigate entering into an emergency operating state
 - Control actions includes rejecting, revoking or recalling outages, constraining dispatch of energy limited resources, etc.
 - The IESO may also issue a Standby Notification to Capacity-Based Demand Response (CBDR) resources

Overview of EOSCA List

- After issuing an EEA-1, the IESO may utilize additional control actions to help mitigate a system emergency
 - Control actions include running short of 30 minute operating reserve, constraining dispatch of resources, soliciting bids and offers, etc.
 - The IESO may also activate CBDR resources that were previously issued a Standby Notification

Recap of Proposal

- At the November 2017 DRWG, the IESO proposed to add HDR resources to the EOSCA list
 - Allows HDR resources to be activated “out-of-market” to help maintain reliability
 - Similar to how other North American markets utilize capacity-backed DR resources, and consistent with the IESO’s treatment of CBDR and dispatchable load resources, as well as other generation resources
- This change would allow the IESO to utilize the following control actions to help avoid or mitigate system emergencies:
 1. Placing HDR resources on standby; and
 2. Activating HDR resources
- The IESO is targeting this change to be in place with an effective date of May 1st, 2018 for the Summer 2018 commitment period

Review of Stakeholder Feedback

- Stakeholders were supportive of including HDR resources as control actions on the EOSCA list
- A summary of the feedback received, and the IESO's response, is included on the next slides
- All stakeholder feedback from the November 16th meeting is shared on the DRWG webpage

IESO Response to Stakeholder Feedback

- **Stakeholder feedback:** *Consecutive days of out-of-market activations may not be possible for some market participants to achieve*
 - **IESO Response:** The IESO requires that resources submit energy bids that are reflective of their capability. If a resource's capability to respond to an activation is impacted for any reason, energy bids must be adjusted accordingly.
- **Stakeholder feedback:** *Out-of-market activations should be used to meet the test activation requirement*
 - **IESO Response:** If a resource receives an out-of-market activation, the IESO may determine that a test activation is not required for that commitment period. However, the IESO maintains the ability to perform up to two test activations per commitment period for a resource, as detailed in Market Manual 7.3.

IESO Response to Stakeholder Feedback

- **Stakeholder feedback:** *Will an EEA-0 be considered sufficient to activate a DRA resource, or must an EEA-1 (or greater) be declared?*
 - **IESO Response:** An EEA-1 would have to be declared for an HDR resource to be activated as a control action.
- **Stakeholder feedback:** *The IESO should be mindful that the reasons for an EEA might not always be apparent to a casual observer of the market, so some consideration should be given to how easy it is to explain these dispatches using publicly published information.*
 - **IESO Response:** The IESO will publish Advisory Notices to notify market participants of anticipated system conditions that may require the implementation of control actions from the EOSCA list. In addition, the IESO will publish an Advisory Notice to indicate that an EEA-1 has been issued. Collectively, this information will provide an explanation to market participants as to why an EEA-1 has been issued.

Adding HDR Resources to the EOSCA List

- The IESO proposes to utilize HDR resources in the EOSCA list similar to the current utilization of CBDR resources
 - Prior to issuing an EEA-1, the IESO may issue a Standby notice to HDR resources as a control action
 - In the event that an EEA-1 is issued, the IESO may choose to activate HDR resources that were previously put on Standby, whether it was on standby from a control action or from an in-market trigger
- The IESO will determine the most appropriate control actions to alleviate system conditions
 - Control actions may be taken in the day-ahead timeframe as well as the dispatch day
 - IESO Control Room Operators perform frequent assessments on the dispatch day to determine if any control actions are necessary

Out-of-Market Activations

Standby and Activation Notices

- Standby and Activation notices for out-of-market activations are proposed to be issued according to the same timelines as in-market activations
 - Resources can expect to receive a Standby notice between 15:07 EST of the day-ahead and 07:00 EST of the dispatch day
 - Activation notices are issued ~2.5 hours prior to the start of activation
- Resources that receive a Standby notice but are unable to comply with an Activation notice are expected to update their bids accordingly.

Market Manual Changes

- Market Manual 7.1 will be updated to align with today's presentation
 - The standby and activation of HDR resources will be included as control actions on the EOSCA list
- Changes to the Market Manual are targeted to be effective prior to the start of the Summer 2018 commitment period

Feedback and Next Steps

- The IESO will continue work on implementing the proposed change to add HDR resources to the EOSCA list for the Summer 2018 commitment period
- Stakeholders will have an opportunity to comment on Market Manual changes through the Change Management Process
 - Changes will be posted in early March
- Feedback on this presentation can be submitted to the IESO at engagement@ieso.ca by February 13th