

IMPROVED UTILIZATION OF HDR UPDATE

Technical Panel

May 3, 2018

Purpose

1. Review proposal to improve utilization of Hourly Demand Response (HDR) Resources
2. Eliminate ambiguity regarding utilizing HDR resources through the Emergency Operating State Control Actions (“EOSCA”) list

Improved Utilization of DR

- IESO is interested in increasing utilization of HDR resources to maximize its value to the system
 - For the 2017 DR Auction, the IESO has added HDR resources to the EOSCA list
 - For the 2018 DR Auction, the IESO is proposing changes to improve flexibility and real-time availability

1. Reduce Minimum Dispatch Duration

2. Increase Real-Time Availability

1. Minimum Dispatch Duration

The IESO proposes to change the HDR resource's dispatch duration from a four-hour block to a one-up-to-four hour block

Current HDR Activation Protocol

1. Standby Notice:

4-hour schedule required for a standby



2. Activation:

4-hour schedule required for an activation



3. Duration:

DR activated for 4 hour blocks



Proposed Change

1. Standby Notice:

1-hour trigger required for a standby



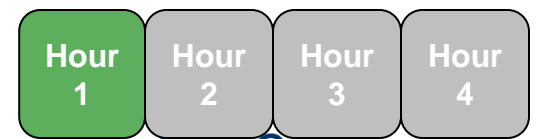
2. Activation:

1-hour schedule required for an activation



3. Duration:

DR activated for 1 up-to 4 hour block



1. Minimum Dispatch Duration

- Under the proposal, HDR resources are still required to be able to provide a four-hour DR activation. However, the IESO would be able to utilize DR resources for one up-to four hours
 - Activation compliance would continue to be measured based on a resource's schedule using the existing methodology
- Based on stakeholder feedback received in 2017/18 through the Demand Response Working Group (DRWG), this proposed change received strong stakeholder support

2. Real-Time Availability

Price-based trigger

The IESO proposes to add a price-based trigger to issue a standby notice based on a resource's shadow price

Price Trigger
2018 Auction: \$200
2019 Auction: \$100

1. Standby Notice:

At least 1-hour is \geq \$X trigger price required for a standby by 7am



2. Activation:

Activate when at least 1 hour scheduled for DR ~2.5hrs prior



3. Duration:

DR activated for up to 4 hours based on schedule when 1st hour activated



- A standby notice will be issued for a resource when its respective pre-dispatch shadow price is equal to or greater than the threshold price for at least an hour during the availability window prior to 7am of the dispatch day in addition to the current schedule-based trigger

2. Real-Time Availability

- Under current design, a standby notification is issued when a resource is **scheduled** for a DR activation by 7am of the dispatch day, otherwise the resource removes its bids and is no longer available to be utilized that day
- Throughout 2017 and 2018, the IESO has been discussing improving real-time availability of HDR resources through the *elimination* of the standby notice
 - DR stakeholders have advised that the immediate elimination of the standby notice would significantly impact their ability to participate in DR
- The IESO is responding to stakeholders and will not eliminate the standby notice for the 2018 DR Auction but will modify triggers to increase real-time availability of the resource

Stakeholder Feedback

- Stakeholders have been supportive of adding a price-based standby trigger to improve availability of HDR resources
- IESO initially proposed to implement a \$100 trigger but revised its proposal using a phase-in approach of \$200 for the 2018 DR Auction and \$100 for the 2019 DR Auction
 - Some stakeholders advised their current processes assume that a standby notice will lead to activation
 - Some stakeholders advocated for a ‘phase-in’ of the price trigger to allow time for DR participants to adjust to changes and to review impacts
- A \$200 to \$100 phase-in is supported by stakeholders

Proposal Details

Changing

- HDR requirement for standby reduced from a 4-hour schedule to a 1-hour schedule or a \$200 price trigger
- HDR requirement for activation modified to allow for a *1-up-to-4* hour schedule
- Capacity and dispatch settlement charges will be evaluated based on only hours activated

Not Changing

- Limit activation to once per day
- Availability settlement charge assessed on requirement to bid in 4-hour blocks
- Continue to be activated ~2.5 hrs. ahead of real-time

Proposed Market Rule Amendments

- HDR Utilization Improvements
 - Modification to Standby Notice – Chapter 7, section 19.4.2
 - Modification to Activation– Chapter 7, section 19.4.4
- Eliminate ambiguity in the Market Rules related to utilizing HDR from the EOSCA List – Chapter 7, section 19.2.4

Addition of HDR to EOSCA List

- As reviewed and discussed with stakeholders, the IESO has added HDR resources to the Emergency Operating State Control Actions (EOSCA) list
 - Consistent with treatment of CBDR resources and dispatchable loads
 - Effective for the beginning of the Summer 2018 commitment period (May 1, 2018)
 - Supported by stakeholders at the DRWG
- Market rule amendments are proposed to eliminate any ambiguity regarding the IESO's authority to maintain the reliability of the IESO-controlled grid (ICG) and to utilize HDR resources as part of the EOSCA list

Market Rules Applicable to HDR

- IESO authority to utilize the EOSCA list is granted under Chapter 5 of the market rules – Power System Reliability
- Chapter 7, section 19.2.4 specifies that Chapter 5 is not applicable to HDR resources:

The following provisions of the *market rules* shall not apply to a *demand response market participant (HDR)*.....

19.2.4.1 Chapter 2, sections 5A and 8;

19.2.4.2 Chapters 5, 6, 8, 10; and

19.2.4.3 Chapter 7 section 7.

- However, Chapter 5 specifies one of the objects of the IESO is to maintain reliability and that **the provisions of the chapter shall govern in the event of any inconsistency with its provisions**
- Amendments to section 19.2.4 are proposed to eliminate any ambiguity regarding the IESO's authority to maintain the reliability of the ICG and utilize the EOSCA list

Next Steps

- The IESO is asking the Panel to approve posting the proposed market rule amendments for stakeholder comment

Proposed Timelines

TP process

