

# IMPROVED UTILIZATION OF DR

DRWG Webinar

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July 18<sup>th</sup> 2017

# Purpose

- The purpose of this presentation is for DRWG members to review proposed changes to improve the utilization of HDR resources

# Criteria for Improvements

*The DRWG identified improving the utilization of hourly DR as a high priority for 2017. The proposed changes should aim to meet the criteria below*

- Must support efficient dispatch and evolve the effectiveness of the DR resource
- Is likely to increase the number of Hourly DR Activations to demonstrate DR value when economic
- Balances stakeholder needs
- Can be implemented for the next DR Auction in December 2017

# Activities to Date

April 6<sup>th</sup>

- Engagement with stakeholders began on the “Improved Utilization of DR” item of the 2017 work plan

May 11, May 30<sup>th</sup>

- The IESO presented options to improve the utilization of Hourly Demand Response resources, received stakeholder feedback, and presented analysis
- Further review of stakeholder feedback received in response to the recommendations proposed at the May 30<sup>th</sup> DRWG

June 27<sup>th</sup>

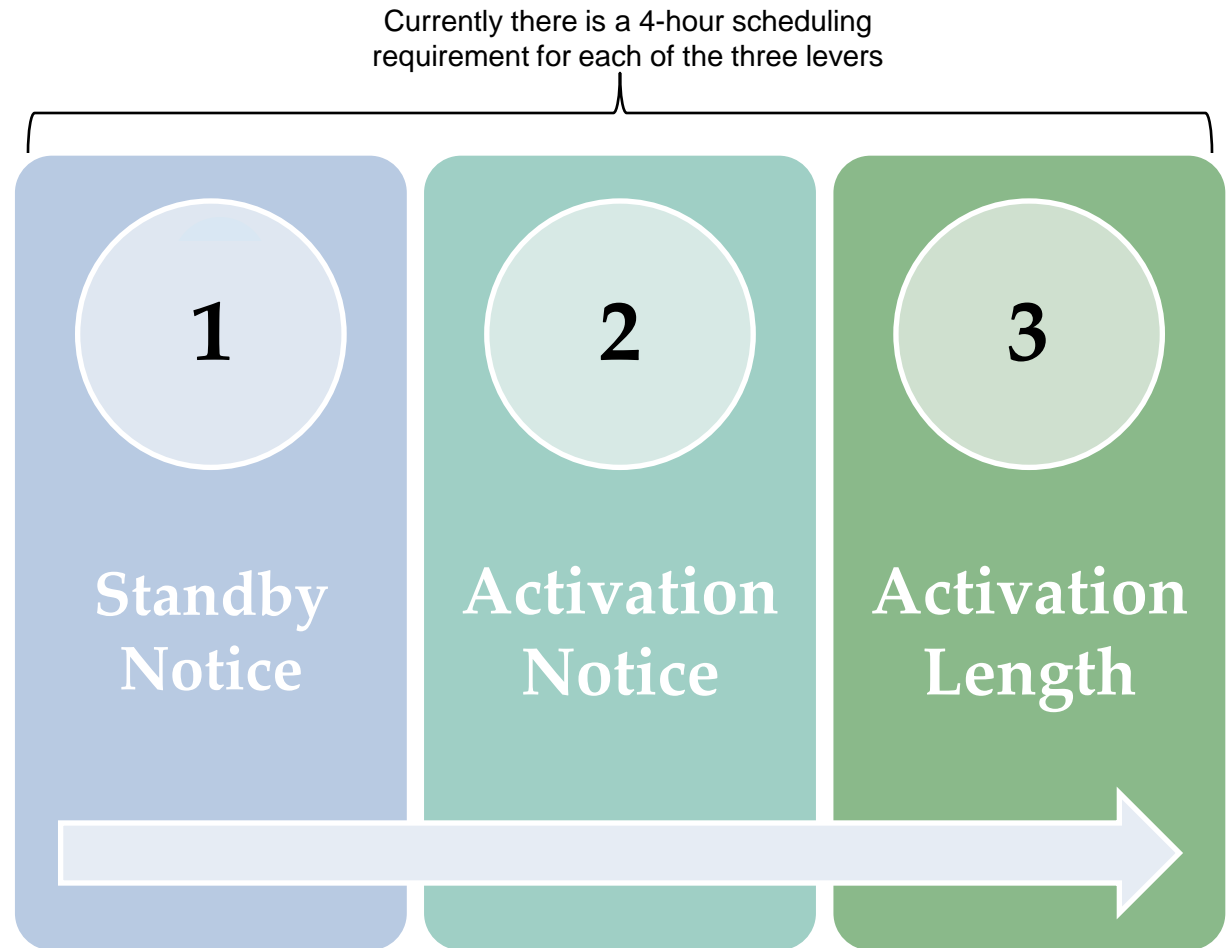
- The Improved Utilization of DR was included as an information item at the Technical Panel meeting. The panel were informed that redline Market Rule changes at the August 15 session

# Re-cap from May 30<sup>th</sup> DRWG

- At the May 30<sup>th</sup> DRWG, the IESO presented analysis on the range of options that were being considered to improve the utilization of HDR
- The IESO proposed “Option 4” to improve HDR utilization and invited stakeholders to provide feedback
- Option 4 changes include:
  1. Standby trigger changed to price-based from current schedule-based
  2. Shorten activation trigger from 4 hours to *at least* 1 hour
  3. Shorten activation duration from 4 hour block to up-to 4 hour block

# Increasing the Economic Dispatch of HDR

Within the Auction design there are three levers which can change the degree and likelihood of economic dispatch



# Stakeholder feedback

- Majority of stakeholders supported transitioning from the current 4-hour standby schedule to 1 hour, and from the 4-hour activation schedule to 1-up-to-4 hours
- Stakeholders expressed concern in changing standby notice trigger from a schedule-based trigger to a fixed price threshold trigger. Concerns include:
  - A low price trigger could lead to many standby notices issued without increase in actual activations reducing the value of the notice
  - Lack of consensus on the appropriate threshold price for a standby notice price trigger

# Proposed changes to dispatch criteria

After considering stakeholder feedback, the IESO is now proposing to implement “**Option 6**” instead of “**Option 4**”. The IESO may initiate discussion on standby triggers for future auctions through the DRWG.

## Proposal:

### 1. Standby notice

Standby if at least 1hr scheduled

- Reduce the 4-hour scheduling requirement to 1 hour, standby notice is sent when 1 hour in the Availability Window is scheduled for DR in predispatch by 7am

### 2. Activation notice

PD-3  $\geq$  \$ Bid for a min of 1-hour

- Reduce the 4-hour scheduling requirement and send an Activation notice when **at least 1 hour** is scheduled in the predispatch

### 3. Activation length

1-up-to-4 hours

- The length and hours activated are determined by how many consecutive hours are scheduled at PD-3 for the first scheduled hour, with 1 hour as the min schedule and 4-hours as the max



# Proposed changes to dispatch criteria

## What's not changing:

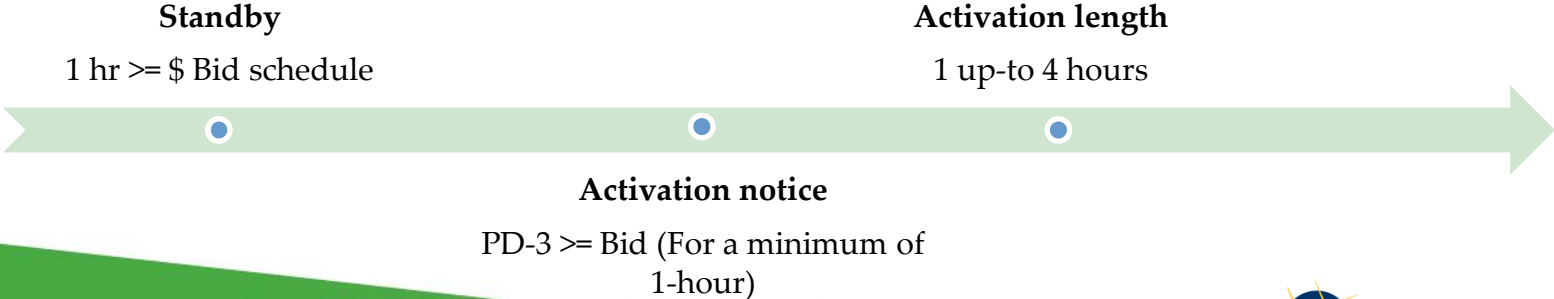
- Maintain a maximum of 1 DR activation per HDR resource during a dispatch day
- The IESO will continue to activate an HDR resource based on the first hour/block of hours within the availability window that DR is scheduled in PD-3

# Proposed changes to dispatch criteria

*The analytical results below are modelled on data from May 2016 to June 2017 at DR specific locations, and assume a participant bid price of \$1999*

- 9 • Days on standby
- 6 • Days with standby and Activations

Reducing the 4-hour scheduling requirement to up-to-4 hours suggests that we are more likely to improve utilization of DR resources. Furthermore, this was the consensus option for the majority of stakeholders, and takes into account the goal to implement in time for the December auction

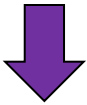


# Current and proposed DR protocol 1/2

## 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 protocol: *Example of a 1-hour block activation*

### 1. Standby Notice:

Min 1-hour schedule required for a standby



### 2. Activation:

1 hour where PD-3  $\geq$  Bid



### 3. Duration:

DR activated for 1 hour



# Current and proposed DR protocol 2/2

## Proposed protocol: *Example of a 2-hour block activation*

### 1. Standby Notice:

Min 1-hour schedule required for a standby



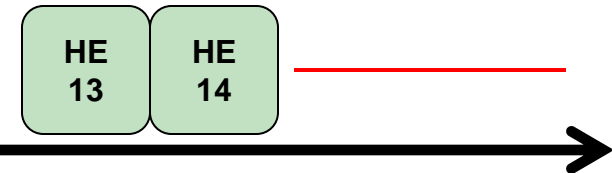
### 2. Activation:

2 consecutive hours where  $PD-3 \geq Bid$



### 3. Duration:

DR activated for 2 consecutive hours



## Proposed protocol: *Example of a 3-hour block activation*

### 1. Standby Notice:

Min 1-hour schedule required for a standby



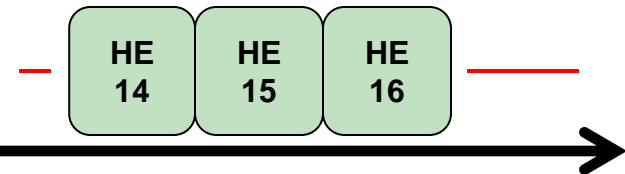
### 2. Activation:

3 consecutive hours where  $PD-3 \geq Bid$



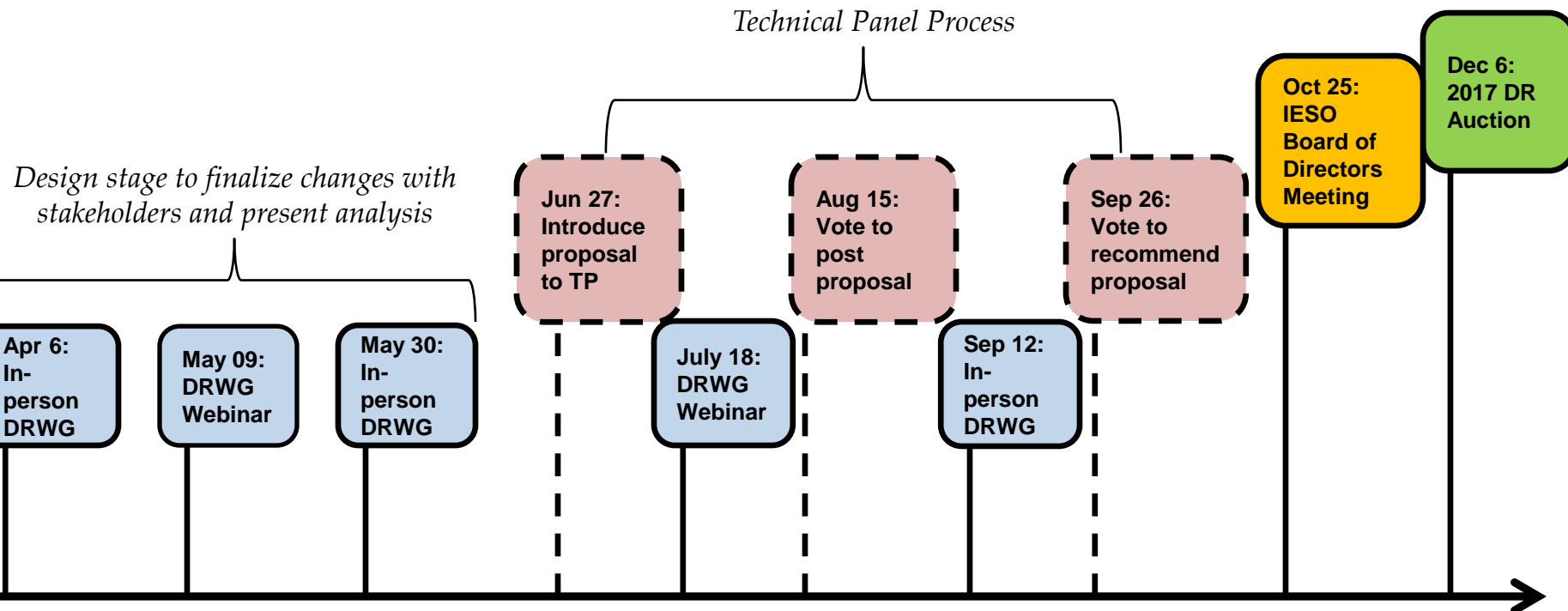
### 3. Duration:

DR activated for 3 consecutive hours



# Timeline for change

The IESO plans on presenting the draft amendment proposal (redlined market rules) at the August TP meeting.



# Market Manual Changes

- Market Manual changes will be aligned with today's presentation to implement the proposed change from a 4-hour block activation to an up-to-4 hour block activation
  - MM4.3 and MM5.5 will be updated
- Market Manual changes are required to be effective prior to the start of the Summer 2018 commitment period

# Next steps

- The IESO will present the proposal and the associated draft Market Rule changes at the next **Technical Panel** on **August 15<sup>th</sup>**
- If you have additional feedback, please submit it to the IESO by July 28 through [engagement@ieso.ca](mailto:engagement@ieso.ca)