

**AUGUST, 2020**

# Clarification to July 2019 Demand Response Working Group Presentation

## Context

A July 2019 presentation to the Demand Response Working Group (DRWG) entitled “HDR Out-of-Market Activation Payments” included the following statement regarding the nature of Hourly Demand Response Resource (HDR) utilization:

- “HDR is intended to meet those very rare days when energy is needed to help meet Ontario’s system needs (i.e., typically 1 day in 10-year planning criteria for a broad provincial need)”

## Context – Market Surveillance Panel

The statement raised questions by the Market Surveillance Panel (MSP) regarding whether the IESO was treating HDRs solely as an emergency resource.

The IESO committed to providing clarification on how HDR resources are utilized.

# Clarification on HDR as a Capacity Product

HDR resources are procured by the IESO to provide a capacity product.

- Capacity is provided when a resource is available for dispatch, regardless of whether it is actually dispatched.

# HDR resources availability and participation

HDR resources are made available to be curtailed, (i.e. placed on standby), either through market-based triggers or manually by the control room to help manage an emergency operating state:

- All DR resources have a requirement to participate in the energy market in order to fulfil their capacity obligation, meaning HDR resources are available to be curtailed if economically scheduled to do so.

## HDR resources added for emergencies

HDR resources were also added to the Emergency Operating State Control Action list effective May 1, 2018.

This allows the IESO control room:

- the option to put HDR resources on standby in the lead up to an emergency operating state, and
- to schedule HDR resources to curtail load if a NERC Energy Emergency Alert 1 (EEA-1) is issued.

# Clarification on Economic Activation of HDR

When and how often HDR resources are economically activated is a function of competition and conditions in the energy market.

- In the energy market, IESO tools are designed to schedule the lowest cost mix of supply resources to meet demand.
- There are usually less expensive resources (including imports) available within the supply mix ahead of needing to 'activate' HDR resources.

# Economic Activation of HDR - Enhancements

Enhancements to how HDR resources are made available for dispatch were introduced in recent years, including:

- a price-based trigger for standby notices (\$100 as of May 1, 2020) and
- the ability to activate the HDR resources for less than a 4-hour block (vs. full 4-hours under the previous design)

These changes aimed to improve the capacity value of HDR resources by increasing the scheduling flexibility of the resource to ensure availability during times of system need

# Clarification to July 2019 Statement

The reference in the statement on Slide 2 to “use on very rare days” was intended to characterize the grid conditions under which HDR resources might be expected to be activated to curtail, either:

- in-market,
- based on historical energy bids, or
- to help manage an emergency operating state.

## Clarification on HDR resource bids

Most HDR resource bids into the energy market are high because of the cost of curtailing load.

This means they are rarely dispatched economically to deliver their capacity obligations because generally there are less expensive resources available to meet demand.

## Clarification on activation of HDR resources

In the event that an EEA-1 is issued, the control room may choose to activate HDR resources manually to help manage the emergency operating state.

For example, on July 9, 2020 and July 10, 2020, HDR resources were placed on standby due to market signals, and later activated out-of-market to curtail by the control room after an EEA-1 was issued.