

**JUNE 23, 2021**

# Resource Adequacy Engagement

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# Resource Adequacy Engagement Update

# Resource Adequacy Engagement General Update

- 11 stakeholder feedback submissions received following the April 22 Resource Adequacy engagement webinar
  - A document that summarizes this feedback with an IESO response has been posted to the [engagement webpage](#)
- Stakeholder feedback on the May 28 Resource Adequacy engagement webinar due by June 18
  - IESO will aim to review and respond in advance of the June engagement days

# Resource Adequacy Upcoming Engagement Activities

## July 20-22 Engagement Days

- Capacity Auction
  - Discussion of proposals to expanding participation to resource-backed imports
  - Tentative: Revised resource-specific UCAP proposals for further discussion and feedback
- Stakeholder engagement plans following publication of 2021 AAR, including upcoming engagement activities for the medium-term RFP



# Final scope and method for hourly demand response baseline methodology review

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# Purpose

- Present stakeholder feedback on the April 22 Resource Adequacy engagement materials and provide IESO responses to that feedback
- Present changes to the Commercial & Industrial (C&I) Hourly Demand Response (HDR) baseline methodology review based on stakeholder feedback

## Recap: Analysis Objective

- To assess the performance of the current “High 15 of 20 with in-day adjustment” baseline method for C&I HDR resources relative to alternative methods, in order to:
  1. Respond to strong stakeholder interest for a review of the effectiveness of the current C&I HDR baseline method;
  2. Ensure assessment of DR resources participating in the IESO-Administered Markets (IAMs) is reflective of performance; and
  3. Inform future discussions on HDR resource design and capacity market enhancements as applicable

# Recap: Proposed Analysis Approach

- Two years of historical HDR consumption data will be used to predict load on proxy event days<sup>1</sup> for a range of baseline methodologies
- IESO will leverage the definition of a Suitable Business Day, as part of the baseline determination, to construct the set of proxy event days
- Estimated load and actual load on each proxy event day will be used to construct performance metrics that will enable a comparison of the relative accuracy of each baseline
- Baselines will also be qualitatively assessed for simplicity and integrity

<sup>1</sup> Proxy event days are days on which no DR curtailment occurs and load is known, meaning estimated load can be compared to actual load in order to assess baseline performance.

## Recap: Proposed Analysis Approach (cont'd)

- 25 baselines will be assessed in total (5 “High X of Y” baseline approaches x in-day adjustment factor (IDAF) variations including a no IDAF variation)
- See the April 22 meeting materials posted on the Resource Adequacy engagement page for further details on the proposed analysis approach, including the list of specific baselines and IDAF variations, performance metrics, and guiding principles

## Recap: Stakeholder Feedback on HDR Baseline Review

- Following the April 22 Resource Adequacy engagement webinar, 4 stakeholders provided comments on the draft HDR baseline review
- The IESO appreciates these stakeholder perspectives and has provided detailed responses to this feedback in a document posted to the Resource Adequacy [engagement webpage](#)
- The following slides summarize some of the key pieces of feedback and the IESO's response for discussion

# Feedback Theme: Alternative Baselines

## Stakeholder Feedback

- Recommendations to consider more than one type of baseline in the HDR baseline methodology review so that HDR resources can choose alternative baselines based on the contributors in the aggregation

## Feedback Theme: Alternative Baselines (2)

### **IESO Response**

- The type of baseline methodology used to measure DR resources is largely dependent on the type of service the resource is providing
- “High X of Y” is the standard baseline type used across North America to measure the performance of resources providing an HDR product with an energy market must-offer obligation

# Feedback Theme: Alternative Baselines (3)

## **IESO Response**

- In some other jurisdictions an alternative or custom baseline is applied only if the market participant can demonstrate the standard baseline is not appropriate via an accuracy test
- As part of the review, IESO will seek to better understand the extent to which resources within the broader HDR fleet may be more accurately modelled by different 'High X of Y' baselines by segmenting resources by underlying load characteristics, to the extent possible based on existing data

# Feedback Theme: In-Day Adjustment Factor

## Stakeholder Feedback

- Questions raised regarding the need for the IDAF in the HDR baseline methodology
- Stakeholders encouraged the IESO to consider allowing resources to opt-out of it if the analysis results in proceeding with a single baseline method

# Feedback Theme: In-Day Adjustment Factor (cont'd)

## **IESO Response**

- As proposed, the review includes an assessment of how the unadjusted “High X of Y” type baselines perform (i.e. performance without an IDAF)
- In-day adjustments are standard practice in order to accurately capture day-of activation operational characteristics in the baseline calculation
- If the analysis shows that an unadjusted baseline is a materially more accurate measure of performance for certain load types, the IESO will consider the potential implications of providing an option to opt-out of the IDAF, and conditions for eligibility to opt-out

# Feedback Theme: Detailed Changes to Scope

## Stakeholder Feedback

- Consider weather patterns and other impacts in proposed timeframe when assessing accuracy of methodologies (e.g. May/June 2020 heat waves, mild winters)

## IESO Response

- IESO does not have consumption data for the HDR resource fleet for May and June 2020, given changes to data submission requirements
- The analysis will use two years of proxy event days covering a range of weather conditions

# Feedback Theme: Detailed Changes to Scope (2)

## Stakeholder Feedback

- While the principle of simplicity is important, the analysis should emphasize baseline accuracy

## IESO Response

- While IESO agrees accuracy is the most important principle of baseline development, transparency and simplicity must also be assessed in part to limit gaming opportunities and ensure market participants are able to estimate C&I HDR baselines in real-time in order to comply with dispatch instructions

## Revised Scope

- In response to stakeholder feedback, the IESO is proposing to expand the analysis to further segment the HDR fleet based on load characteristics to the extent possible based on existing data
- This will enable an additional assessment of the benefits of having multiple baseline methods available (vs. only assessing the relative performance of each baseline method at the fleet-level) and provide insight into the accuracy impacts of in-day adjustments

## Next Steps

- **Q3 2021:** Present preliminary review results for discussion and feedback
- **Q4 2021:** Present final review results and discuss next steps
- If the findings of this review suggest that changes to the existing HDR baseline methodology should be made, a proposal for implementation of these changes will need to go through the IESO's internal project assessment process. The outcomes of this assessment process will determine the next steps for the changes.

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# Thank You

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