Discussion Brief 2.0: HDR Performance Thresholds

Overview

Under the existing auction design, HDR resources are required to provide at least 80% of their energy bid when assessed for capacity delivered during an activation test. Other capacity auction resources have no allowance during the test. HDR resources are assessed for performance during a test using a calculated baseline, unlike other resources which are directly metered by IESO.

Market Surveillance Panel Recommendation

The Market Surveillance Panel (MSP) monitors, investigates and reports on activities and behaviour in the IESO-administered markets in Ontario's electricity sector. The MSP prepares semi-annual monitoring reports on the IESO-administered markets. In Report 35, published August 2021, **Recommendation 3-2** states:

For all Capacity Auction resources, the IESO should adjust penalties and payments such that there are no financial incentives to submit Capacity Auction offers that exceed expected capabilities.

The proposal below seeks to address this recommendation by increasing the stringency of performance thresholds for HDR resources, in order to more closely align it with that of other capacity auction resource types.

IESO Proposal

Under the enhanced framework, IESO proposed to adjust the capacity test performance assessment threshold for HDR resources from 80% to 90% of Installed Capacity (ICAP), while other resources will be required to demonstrate their ability to deliver 95% of ICAP during a capacity test. The leniency for HDR resources is due to the fact that these resources are not directly metered by the IESO, meaning their performance is assessed using a calculated baseline which estimates what the resource would have been consuming in absence of the activation. IESO proposed adjusting the threshold for HDR resources from 20% to 10% of ICAP delivered in order to more closely align with the (5%) deviation from ICAP allowed by other capacity auction resource types.

Stakeholder Feedback

Throughout the 2022 capacity auction engagement, demand response stakeholders raised concerns regarding the accuracy of the baseline, specifically when a large contributor to an HDR resource is on a forced (i.e., unexpected) outage. Stakeholders also continued to raise concerns regarding the in-day adjustment factor portion of the baseline calculation, despite findings of a comprehensive 2021 baseline methodology review determining adjusted baselines result in more accurate prediction of what the resource would have been consuming in absence of the activation.

Forced HDR Contributor Outages

Stakeholders have raised concerns over the potential impact a large contributor experiencing a forced outage on the day of an in-market, test, or emergency activation can have on the overall performance assessment of the HDR resource. Stakeholders assert that the outage can skew the HDR baseline downward, resulting in less capacity measured as delivered than is actually delivered. IESO found that in most cases, the in-day adjustment portion of the baseline calculation accurately accounts for the outage, however, there may be edge cases where an outage can impact assessed performance, including leading to an over-crediting of capacity delivered.

There is no existing mechanism that addresses the potential impact a forced HDR contributor outage can have on the baseline calculation, and subsequently HDR resource performance assessment and settlement. IESO is proposing to address stakeholder concerns by offering a solution that would involve removing the contributor on forced outage from the baseline calculation. The HDR resource would still be required to update bids if the forced outage resulted in less capacity available for dispatch in the energy market, and the resource would still be assessed against its full obligation.

The proposed solution considers the following two components:

1. Market participants update bids to reflect reduction in resource capacity, as necessary.

2. Meter data of contributor on forced outage excluded from baseline calculation, performance assessment and settlement.

The solution will be designed to address a specific scenario where a contributor is on forced outage during certain hours on an activation day. Forced and/or planned outages that started before the actual activation day will continue to be managed based on current processes. The solution will not change the existing process to the established baseline.

Discussion Questions

- Do stakeholders support the IESO further pursuing this proposed solution?
- Will the proposed solution alleviate stakeholder concerns regarding the impact of a forced contributor outage on measured performance?

- Do stakeholders have any initial feedback regarding the high-level proposed solution?

Baseline with In-Day Adjustment

A comprehensive stakeholder engagement was conducted throughout 2021 to assess the performance of the current "High 15-of-20 with in-day adjustment" baseline methodology for HDR resources relative to a set of alternative methodologies, including a High 15-of-20 baseline with no in-day adjustment. The baseline review did not find any empirical evidence to suggest that introducing a baseline with no in-day adjustment would improve the accuracy of HDR measurement.

IESO remains committed to exploring solutions to the contributor outage issue outlined in the previous section as a separate engagement topic, however, absent any new information or evidence from stakeholders to empirically and conclusively demonstrate a negative impact of the in-day adjustment on assessed performance, there is no basis to support a change to the current HDR baseline methodology.

A document summarizing the HDR baseline methodology review will be published ahead of the September engagement session. The report will provide an overview of the engagement, including scope, objectives, approach, findings, and conclusions. At this time, the conclusions of the baseline review do no suggest changes to the baseline are required prior to adjusting the HDR performance assessment threshold from 80% to 90% of ICAP delivered.