Memorandum

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To: **Technical Panel**

From: Adam Cumming

Date: April 12, 2022

Re: MR-00469-R00 – 2022 Capacity Auction Enhancements

The IESO's Capacity Auction helps to meet Ontario's reliability needs in a cost effective manner while allowing the IESO to adjust to changing system needs.
Additional information on the Capacity Auction can be found on the IESO's Capacity Auction webpage.
The IESO is proposing to make a series of enhancements to the Capacity Auction.

Enhancement #1: Capacity Qualification

The IESO is proposing to introduce a capacity qualification process. During the pre-auction period, resources that intend to participate in an upcoming Capacity Auction will be required to submit an installed capacity (ICAP) value for qualification of each resource. The IESO will apply the resource-specific capacity qualification methodologies to derive a unforced capacity (UCAP) value which will represent the maximum quantity that the resource may offer into the auction.

Enhancement #2: Performance Assessment Modifications

In order to enhance the reliability and market performance of acquired capacity resources, the IESO conducted a review of current performance obligation and assessment criteria to identify improvements. The IESO is proposing to make modifications to the performance obligation assessment framework seeking to achieve the objectives of:

- Incenting proper behaviour from acquired resources during the obligation period, including a resource's availability during hours of system need, and their bid and offer obligations in the energy market;

- Reducing the risk of underperformance, especially during hours of system need;
- Improving confidence in and addressing concerns related to the reliability value provided by resources secured in the auction; and
- Ensuring alignment, balance and fairness between capacity qualification and performance assessment for different resource types.

Some of the enhancements proposed to meet these objectives include:

- More predictable and consistent capacity testing and performance assessments
- Stronger availability performance requirements to incent resources to be available and reliable at times of need
- An availability charge true-up to compensate resources for some of the availability charges incurred if, on average, the resource availability is equal to or greater than the capacity obligation over the obligation period, and;

Enhancement #3: Expand Participation to Generator-Backed Capacity Imports

As indicated in the 2021 Annual Acquisition Report, the Capacity Auction will serve as a flexible mechanism to meet short-term Resource Adequacy needs over the next several years with targets that will be growing in future years. One of the objectives of the proposed Capacity Auction enhancements is to increase competition by expanding participation in the auction to generator-backed capacity imports.

All enhancements were further described in the Technical Panel education presentation found here. For additional information, the 2022 Capacity Auction Enhancement Design Document is available on the Resource Adequacy Engagement webpage.

Stakeholder Feedback

As part of the Resource Adequacy Engagement the IESO held a series of stakeholder sessions to discuss the evolution of the Capacity Auction. Materials from these sessions including presentations and stakeholder feedback is available on the Resource Adequacy Engagement webpage.

As part of the proposed enhancements, the IESO has issued responses to stakeholder feedback and has also made a number of revisions to the initial proposals based on stakeholder feedback. These changes include updating the proposed testing framework to allow capacity auction participants to self-schedule their own capacity auction capacity tests within a five business day testing window determined by the IESO. This will allow auction participants greater flexibility to

schedule their tests when they are best able to demonstrate their ability to deliver their capacity obligation, or more specifically their cleared ICAP.

Moving to an Auction framework which secures qualified capacity on the basis of historic availability during peak is a cornerstone of the proposed 2022 enhancements. For most resource types this involves looking at the historic forced outage and/or production during peak times and applying availability de-rates accordingly. For one resource type, hourly demand response (HDR), no such historic availability data is available. In lieu of an availability de-rate during qualification, and to ensure fair treatment between different resources, the IESO will need to rely on higher availability charges during the obligation period to more strongly incent HDR resources to 'self-qualify' and only offer MWs into the auction which they expect to be available during times of need. The higher charges would apply whenever a HDR resource has been placed on standby. The charge would apply for the portion of the capacity obligation not made available in the real-time energy markets.

A true-up has also been added which will cap the total capacity related charges that a capacity market participant can accrue in a single obligation period to the total capacity payments for that obligation period.

Panel Action and Next Steps

The IESO recommends that the Technical Panel vote to post the proposed market rule amendment MR-00469-R00 for stakeholder review and comment for a period of two weeks, ending on June 3, 2022.

Accompanying Materials

- Market Rule Amendment Proposal Form - MR-00469-R00 – Version 3
- Market Manual 4.2 - Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets
- Market Manual 4.3 - Real Time Scheduling of the Physical Markets
- Market Manual 5.5 - Physical Markets Settlement Statements
- Market Manual 12.0 - Capacity Auctions
- Market Manual 7.2 - Near-Term Assessments and Reports
- Market Manual 7.3 - Outage Management
- IESO Charge Types and Equations

Adam Cumming