

Memorandum

To: Technical Panel
From: Adam Cumming
Date: July 4, 2023
Re: MR-00477-R00 – 2023 Capacity Auction Enhancements – Stream 2

In the IESO’s Resource Adequacy Framework (the “Framework”), the Capacity Auction serves as the short term balancing mechanism, helping to secure capacity needed to meet Ontario’s resource adequacy needs. The Capacity Auction enables participation from a diverse range of resources that compete annually to be available for two six-month obligation periods (summer and winter). Additional information on the Capacity Auction can be found on the IESO’s Capacity Auction [webpage](#).

A collaborative approach to stakeholder engagement on the 2023 Capacity Auction Enhancements has resulted in a robust set of rules that will achieve the IESO’s objectives for the enhancements while incorporating numerous stakeholder proposals.

Objectives of the 2023 Capacity Auction Enhancements

The Capacity Auction is an important component of the Framework with auction targets projected to rise in the upcoming years. Consequently, the reliability of Capacity Auction resources is critical to the IESO and we must have confidence that capacity auction resources are able to perform to their obligations. With that in mind, the 2023 Capacity Auction Enhancements are intended to help improve resource performance as well as further enhance competition in order to provide ratepayer value.

In addition to the Stream 1 enhancements to the 2023 Capacity Auction that were previously recommended for approval by the Technical Panel at the June 2023 meeting, the following items are proposed for implementation in advance of the 2023 Capacity Auction as part of the second stream of enhancements (Stream 2):

Performance Adjustment Factor (PAF)

Beginning with the 2023 Capacity Auction, the IESO will be using a pre-auction capacity qualification process to determine an unforced capacity (UCAP) value that can be offered into the auction from each resource. Capacity qualification methodologies have been determined based on industry best practices and stakeholder input for each resource type eligible to participate in the auction. As part of capacity qualification, a resource's UCAP value, which represents the MW quantity, that each resource is expected to be able to contribute to the resource adequacy of the system, will be calculated using resource-specific performance and availability data. This calculation will include the use of a seasonal PAF that will be incorporate capacity test performance data from the most recent applicable seasonal obligation period's capacity test.

The approach to qualifying capacity for all resources is generalized as follows:

$$\text{UCAP (MW)} = \text{ICAP (MW)} \times \text{Availability De-Rating Factor} \times \text{PAF}$$

A PAF will only impact a resource's capacity qualification if that resource did not pass its previous applicable capacity auction capacity test. If a resource passed the capacity auction capacity test or was not subject to a capacity auction capacity test in the relevant obligation period being used to assess the PAF, the PAF will have no impact on the UCAP calculation. The final PAF design encourages participants to submit accurate values into the Capacity Auction that can be reliably provided when needed.

Further detailed information on the PAF is available online: [Memo 10.1 – Performance Adjustment Factor](#)

Administrative clean up

The IESO is proposing to amend the portion of chapter 9 associated with the Capacity Auction. This is being done to consolidate settlement rules, formulas, and associated variables into the Market Rules. Consolidating this information, which is currently spread across the Market Rules, Market Manuals, and Charge Types and Equations documents, is being done in response to stakeholder and technical panel member requests, and will improve clarity and the presentation of content for participants.

This work is also being done to ensure the portion of chapter 9 that is related to the Capacity Auction uses a style and formatting structure that is in line with the style and formatting structure that is being implemented throughout chapter 9 as part of the Market Renewal Program.

Stakeholder Feedback

Over the past year, 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 Capacity Auction Enhancements [webpage](#). In January 2023, the IESO extended engagement timelines to allow further discussion with stakeholders on the PAF which led to revisions to the final design based on stakeholder input. For example, the final PAF design will not impact a participant's UCAP value if the participant fails the previous applicable capacity test and chooses to submit a capacity value in capacity qualification that is equal to the delivered capacity in the previous test. It was also proposed by stakeholders to shift to using the most recently available test data. In response to this, the IESO will use capacity test data from the previous summer obligation period to determine a PAF for the summer obligation period of the current auction. Similarly, capacity test data to determine PAFs for winter obligation periods will be sourced from the most recently completed winter obligation period. These proposed market rule amendments were posted for stakeholder review through the Capacity Auction Enhancements stakeholder engagement and no stakeholder feedback was received.

Panel Action and Next Steps

The IESO recommends that the Technical Panel vote to post the proposed market rules amendment MR-00477-R00 for stakeholder review and comment for a period of two weeks, ending on July 25, 2023.

Accompanying Materials

- Market Rules Amendment Proposal Form - MR-00477-R00
- Market Manual 5.5 - Physical Markets Settlement Statements
- Market Manual 12.0 - Capacity Auctions
- IESO Charge Types and Equations