APRIL 8, 2025

Capacity Auction Enhancements

Capacity Auction Team



Territory Acknowledgement

The IESO acknowledges the land we are delivering today's webinar from is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit First Nation.

As we have attendees from across Ontario, the IESO would also like to acknowledge all of the traditional territories across the province, which includes those of the Algonquin, Anishnawbe, Cree, Oji-Cree, Huron-Wendat, Haudenosaunee and Métis peoples.



MRP Readiness

- The IESO is continuing to move forward with launching the renewed market on May 1, 2025
- Thank you to those Market Participants who have participated in End-to-End Testing and cutover testing
- Market Participants are reminded to review the <u>MRP Readiness Plan</u> for Market Renewal Launch, and ensure all required steps are completed
- Please contact <u>IESOCustomerRelations@ieso.ca</u> with any questions



Today's Discussion

- Overview of 2024 Capacity Auction results
- 2025 Capacity Auction Enhancements status update
- Stakeholder feedback from November 18, 2024 engagement
- 2025 Capacity Auction Enhancements
 - Commitment Management Options
 - Administrative Updates
 - Timelines for market rule (MR) and market manual (MM) amendments
 - Hourly Demand Response (HDR) Standby Notice Price Trigger
- Summary and next steps



2024 Capacity Auction Results

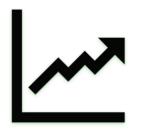


2024 Capacity Auction Results

- The 2024 Capacity Auction secured more capacity than ever before from a larger pool of participants.
- These results show the IESO's efforts and engagement with stakeholders to grow the auction and make it more competitive are helping to achieve ratepayer value and ensure system reliability.
- With electricity demand increasing coupled with tighter supply conditions due to nuclear refurbishments and the retirement of the "A" units at Pickering Nuclear Generating Station at the end of 2024 – the annual auction will continue to be a valuable tool in the Resource Adequacy Framework to support reliability in Ontario.



2024 Capacity Auction Results Overview



2024 Capacity Auction cleared:

- 2,122.2 MW at \$332.39/MW-day for the summer 2025 obligation period
- 1,524.6 MW at \$139.00/MW-day for the winter 2025/2026 obligation period

Compared to 2023 Auction results:

- 14% more summer capacity
- 16% more winter capacity

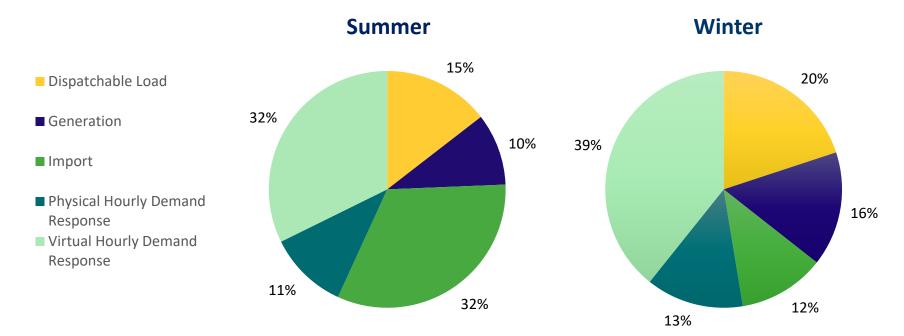


2024 Capacity Auction Results – Key Insights

- Virtual hourly demand response resources and imports make up the largest share of capacity cleared by resource type.
- Dispatchable loads saw the largest growth in cleared capacity, with a 47% increase compared to 2023.
- The overall resource mix stayed relatively static compared to the 2023 auction
- This year was the first in which a performance adjustment factor (PAF) was applied in the capacity qualification process, for the summer obligation period. The performance adjustment factor was designed to ensure the IESO procures capacity that has been confirmed to be available via the capacity test.
 - Due to positive summer 2024 test results, the PAF de-rated a modest number of resources' qualified capacity



Capacity Cleared by Resource Type





Year-Over-Year Comparison: Summer





Year-Over-Year Comparison: Winter





2025 Capacity Auction Enhancements Status Update



2025 Capacity Auction Enhancement Status Update

- The IESO is undergoing detailed implementation planning for the 2025
 Capacity Auction Enhancements. After assessing the Enhancement designs
 and previous feedback that implementation timelines should include additional
 time for participants and the IESO to identify any issues with a new rule set,
 the IESO will be taking a staggered approach to implementation to ensure it
 can successfully deliver on a portion of the enhancements for the 2025
 Capacity Auction
- For the 2025 Capacity Auction the IESO will be moving forward with the following enhancements based on their ease of implementation.
 - Commitment Management Options
 - Administrative Updates



2025 Enhancements Implementation Timeline

- The IESO will continue to assess the remaining identified enhancements for implementation as part of future Capacity Auctions and will engage with participants accordingly. This includes the following enhancements discussed with participants
 - Revised Tie-Break Methodology
 - Expand Participation
- Engagement on future enhancements will begin later in 2025



Summary of Stakeholder Feedback: November 2024 Session



November Stakeholder Feedback

- The IESO requested participant feedback following the November stakeholder engagement session and three responses were received.
- The IESO's response to stakeholder feedback is posted to the <u>Capacity</u> <u>Auction Enhancements</u> engagement webpage.
- The following slides focus on stakeholder feedback related to the enhancements discussed in today's presentation.



Expand Participation to Variable Generation (VG) 1/3

Feedback:

 Stakeholders have concerns about VG resources not being subject to the capacity test.

Response:

 The IESO has revised the design for VG resources to achieve greater consistency in qualification requirements for all resource types. The design now requires that a VG resource's ICAP must be verified by actual production (AQEI) data from the first two months of the summer obligation period (and within the availability window hours).



Expand Participation to Variable Generation (VG) 2/3

Feedback:

 Stakeholders had concerns about VG resources not being able to provide incremental capacity when dispatched by the IESO.

- The Capacity Auction is designed to ensure sufficient capacity is available at times of need (i.e., during availability window hours); the proposed VG participation model is consistent with this design objective.
- There is no requirement that resources may only be manually dispatched by the IESO. Like all other resources, VG resources that have submitted offers and are scheduled to provide energy during the availability window would be considered to have met the availability must-offer requirement.



Expand Participation to Variable Generation (VG) 3/3

Feedback:

 Stakeholders have concerns about the ability of VGs to deliver in all availability hours, even after considering the availability de-rating factor (ADF).

- VG resources are generally capable of delivering in all availability hours, including during the shoulder months. Like other Capacity Auction resources, VG resources' day-to-day capability can deviate from their UCAP value.
- The proposed qualification methodology for VG resources will only reflect their actual historical production from the previous applicable seasonal period.



Commitment Management Options:

Feedback:

 Stakeholders supported increasing the buy-out charge and also encouraged the IESO to consider including in-period obligation transfers to enhance flexibility and encourage broader auction participation.

- The IESO appreciates stakeholder support to increase the buy-out charge.
- The IESO will consider the feedback related to in-period obligation transfers when investigating post-2025 enhancement priorities.



Auction Tie-Break Mechanism

Feedback:

 Stakeholders believe that the current proposal provides too great of an incentive to register multiple subsidiaries for auction participation.

- The IESO believes that the tie-break enhancement improves on the current tie-break mechanism.
- The proposed tie-break enhancement design will allocate capacity more equitably and support robust competition.
- The IESO will consider the feedback about the impact of multiple subsidiaries as part of post-2025 enhancement discussions.



2025 Capacity Auction Enhancements – Draft Market Rule and Manual Amendments



2025 Draft Market Rule and Manual Amendments

- With engagement on the 2025 enhancement designs now completed, stakeholders are invited to review and provide feedback on the draft market rule and manual amendments for the enhancements targeted for 2025 implementation
- The following slides summarize how the IESO has translated design details into draft market rule and manual amendments
- These amendments were made using the <u>Renewed Market Rules and Manuals</u> Issue 1.0



Commitment Management Options 2025: Update

 After reviewing the latest stakeholder feedback on the final designs, no further changes were made to the four design elements included in the Commitment Management Options enhancement package proposed in November as part of *Capacity Auction Design Memo 1.0.*



Commitment Management Options 2025: Market Rule and Manual Amendments (1 of 2)

| Enhancement | Summary | Market Rule or Market Manual |
|---|---|--|
| Physical-to-Virtual Obligation Transfers | Removed obligation transfer criteria found in Ch. 0.7 that limits transfers to the same resource type (i.e., physical or virtual) No changes to market manuals | Ch. 0.7 s18.9.1.3 |
| Review of Buy-out Charge | Revised buy-out charge formula found in Ch. 0.9 and Charge Types & Equations document (CT1319) No changes to market manuals | Ch. 0.9 s4.13.9, Charge Types & Equations (CT1319) |
| Review of Forfeiture Rules | Removed forfeiture of obligation and capacity auction deposit criteria found in Ch. 0.7 and replaced it with a buy-out will be automatically applied Included that the capacity auction deposit can be returned once the applicable buy-out charge has been paid Clarified what the effective date of the buy-out will be under this scenario | Ch. 0.7 s18.4.4, MM 0.12 s3.4.2, MM 0.12 s7 |



Commitment Management Options 2025: Market Rule and Manual Amendments (2 of 2)

| Enhancement | Summary | Market Rule or Market Manual |
|---------------------------------------|---|--|
| New Dispatchable Load Registration | No changes to market rules Included information about qualifying a new dispatchable load resource in addition to a physical hourly demand response resource, which could be used to fulfill an obligation if the new resources registration requirements are not met Included that any applicable performance adjustment factor from the physical hourly demand response resource will be carried over to the new dispatchable load resource during qualification Included that only a single deposit will be required when qualifying the two resources, deposit calculations based on the physical hourly demand response resource Included that the participant should not offer into the auction using the new dispatchable load resource Included that the participant must complete the market registration of the resource they intend to fulfill the obligation with | MM 0.12 s3.3.1, MM 0.12 s3.3.2, MM 0.12 s3.4, MM 0.12 s4.1, MM 0.12 s5.2 |



2025 Administrative Updates

- Standard annual review process to provide clarity on rules and procedures and consider design changes that can improve the efficiency of existing Capacity Auction processes
- Administrative updates typically require amendments to Market Rules and/or Market Manuals, and, in some cases, may require IT changes
- Since the November engagement, the list of 2025 auction administrative updates has been updated



Administrative Updates to be Deferred

| Item | Description | Reason for Deferment |
|--|--|--|
| Review GBI UCAP Methodology | Determine if any updates to IESO's methodology are required based on lessons learned, capacity accreditation developments in other jurisdictions | After initial investigation, this change requires more comprehensive investigation and engagement with stakeholders |
| Implement Ability to Submit Capacity Test Info via Online IESO | Add user interface to Online IESO for ease of data submission | The addition of this user interface is not critical for administering the auction and can be considered in future implementation plans |



Updated Test Procedure for System-backed Imports

Current: As part of the capacity auction capacity test procedure, SBI resources receive a schedule from IESO to import energy

Change: Align the procedure for SBIs with all other resources under the self-scheduled capacity test

Benefit: Greater alignment of capacity test requirements across eligible Capacity Auction resources. Participants can schedule SBI resource test activation during the testing and availability window.



Enable Beauharnois Intertie

Current: Current public-facing documentation (market manual and preauction report) lists only one intertie that can accept Capacity Auction offers from Quebec (Outaouais). Other interties between Ontario and Quebec are capable of supporting system-backed imports but are not currently included in Capacity Auction documentation.

Change: Add the Beauharnois intertie to the list of eligible Capacity Auction system-backed import interties.

Benefit: Formalize current public-facing documentation to reflect existing intertie capability



2025 Administrative Updates: MR & MM Amendments

| Enhancement | Detail | Market Rule / Market Manual |
|---------------------------------------|---|--|
| Update SBI Capacity Test Procedure | Removed section about IESO providing test notification as SBIs will now self-schedule their capacity tests To align with other resources' testing requirements: Updated number of capacity tests per obligation period Updated testing timeframe to a 5-day window Updated data submission requirements | MR Ch. 0.7, s.19.9 MM 0.12, s.5.3.5 |
| *New* Enable Beauharnois intertie | Update market manuals and pre-auction report to enable this intertie for use in the Capacity Auction. The market manual update will include adding PQ.BEAUHARNOIS.SOURCE.SBACK.01 to Appendix C: Boundary Entity Resources. | MM 0.4.1 |



Timelines for Market Rule and Manual Amendments



Market Rule and Manual Feedback

- The IESO is requesting stakeholder feedback to ensure that the proposed amendments to the Market Rules and Market Manuals accurately reflect the design of 2025 enhancements and administrative updates that were previously presented and discussed with stakeholders.
- Please submit feedback <u>using the feedback form provided</u> by April 22, 2025



Timing of Amendment Approvals

The 2025 Capacity Auction Enhancements draft amendments will follow two separate approval timelines:

- The market manual amendments to implement the New Dispatchable Load Registration process will proceed with an accelerated timeline to bring the amendments into effect by the opening of the qualification window
- The remainder of the amendments will follow a timeline that brings the amendments into effect by the opening of the auction submission window



Timeline #1: New DL Registration and Enable Beauharnois (Market Manual)



Present Market Manual amendments to stakeholders



Late Summer 2025

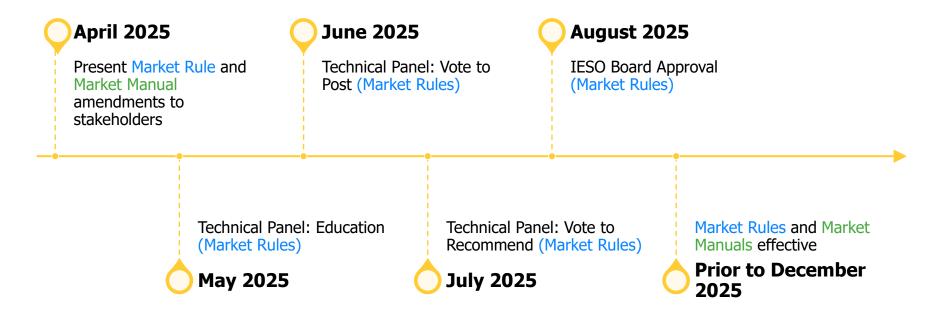
Market Manuals effective

Post draft Market Manuals for review as part of baseline process





TL #2: Other Amendments (Market Manual and Rules)



Amendments: Commitment management transfers, buy-out charge, forfeiture; SBI self-scheduled test



Hourly Demand Response (HDR) Standby Notice Price Trigger



HDR Standby Notice Price Trigger 2025 (1 of 2)

Overview: As part of Capacity Auction Design Memo 4.0 issued in September 2022, the IESO committed to an annual review of the HDR standby notice price trigger.

The standby price trigger was set at \$200 for the 2022 auction and has been maintained at \$200 for the 2023 and 2024 auctions.



HDR Standby Notice Price Trigger 2025 (2 of 2)

Update: Locational Marginal Pricing (LMPs) will be introduced on May 1, 2025, as part of the Market Renewal Program (MRP). As noted at the May 2024 engagement session, LMPs will be analyzed in comparison to existing pre-dispatch shadow prices to determine if any changes are required to the HDR standby notice price trigger.

- Given that LMPs only take effect on May 1, 2025, there will not be a sufficient dataset of LMPs available to complete this analysis prior to the 2025 auction.
- The IESO proposes to maintain the standby price trigger at \$200 for the 2025
 Capacity Auction;
- The HDR standby notice price trigger will be revisited prior to the 2026 auction.

E-Learning Module and Upcoming Q&A Sessions



E-Learning Module and Upcoming Q&A Sessions

- Updated E-Learning module covering the forward and commitment period is now available to participants.
- IESO will also be holding two Q&A sessions for participants who cleared an obligation during the 2024 Capacity Auction.
- The Q&A dates are as follows:
 - Q&A Session #1 (April 17, 2025)
 - Q&A Session #2 (April 24, 2025)



Summary and Next Steps



Next Steps for 2025 Capacity Auction Enhancements

- Any final feedback for IESO to consider while amending the market rules and manuals for 2025 enhancements and administrative updates can be submitted by April 22, 2025
- IESO will consider feedback before finalizing market rule and manual amendments
- Any design element details that materially deviate from final designs will be brought to stakeholders for input before market rule and manual amendments are submitted for Technical Panel review and approval



Next Steps

- IESO to resume future enhancement discussions at an engagement session later in 2025.
- Using the <u>feedback form provided</u>, stakeholders are invited to submit questions and comments by April 22, 2025 on the following items:
 - Draft amendments to the market rules and market manuals for the 2025 Commitment Management Options enhancements and Administrative Updates



Thank You

ieso.ca

1.888.448.7777

customer.relations@ieso.ca

engagement@ieso.ca



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