

Stakeholder Feedback and IESO Response

Capacity Auction Enhancements

Following the [July 25, 2024, Capacity Auction Enhancements engagement](#), the IESO invited stakeholders to provide comments and feedback on the materials presented.

The presentation materials and stakeholder feedback submissions have been posted on the IESO stakeholder engagement webpage for this engagement. Please reference the material for specific feedback as the below information provides excerpts and/or a summary only.

Winter Testing Results

Stakeholder Feedback	IESO Response
<p>Do you have any comments regarding the winter 2023-2024 testing results?</p> <ul style="list-style-type: none">- Stakeholders disagreed with the IESO's presentation of the winter 2023-2024 capacity testing results and the statement that 57% of HDR resources that were tested passed.- The IESO should strongly consider allowing the option for aggregators and CMP to declare a contributor outage during a testing week, if the contributor meets the market rules or makes adjustments to better capture and notify the IESO of outages during the testing week.	<p>The statement that 57% of HDR resources that were tested in the winter 2023-24 obligation period passed the test is accurate. This means that out of the total number of HDR resources tested, 57% of resources passed the test based on the previous capacity testing assessment criteria, which compared delivered demand response capacity to the resource's obligation. One stakeholder noted that the HDR resource fleet's overall MW delivery during the winter 2023-24 capacity tests was 57% of the fleet's total day-ahead bid quantity. This is a coincidence that did not impact the resource-specific test assessments the IESO completed.</p> <p>The IESO's current capacity testing framework was designed to allow participants to complete the capacity test anytime during the availability window within a five-business day testing window. In addition, the IESO has publicly indicated the test is likely to occur in the first two</p>

Stakeholder Feedback	IESO Response
	<p>months of an obligation period. This design allows participants with sufficient flexibility and ample time to prepare their resources to complete the capacity testing requirements, including managing contributor outages.</p> <p>Finally, the allowable exception process, described in Market Manual 12, s5.3.4, may be used in specific circumstances that prevents any resource from completing the capacity test.</p>

2024 Enhancement Updates

Stakeholder Feedback	IESO Response
<p>Do you have any feedback regarding the enhancement updates for 2024?</p> <ul style="list-style-type: none"> - Stakeholders expressed concern that the virtual zonal limits in the West zone were not increased for this year's auction, as virtual capacity exists there but is not allowed to participate in the auction due to the current limits. A stakeholder also stated that providing the review's outcomes after the July meeting did not allow for their comment. - A stakeholder has commented on the tight approval schedule for the 2024 Capacity Auction market rule and manual amendments which leaves little time for MPs to identify any issues for the IESO to correct with the current set of rules. They claim more time is necessary to help avoid issues that were experienced with operationalizing the current rules, which has resulted in partial curtailments of physical resources, incorrect issuances, recall of some DR-activation notices and the delay to the release of the summer 2024 test results—leaving no time to discuss any errors, questions or clarifications before the 2024 activities. 	<p>Thank you for your comments. The IESO understands and is generally aligned with stakeholders' desire to investigate how virtual zonal limits can be modified or eliminated for future auctions to allow more capacity to participate in those zones.</p> <p>The virtual zonal limits review for the 2024 auction aimed to determine the amount of additional virtual capacity that can be accepted in the Niagara and West zones without a material increased risk to reliability. While the assessment determined that an increase of 30 MW to the virtual zonal limit for the Niagara zone could be accommodated and no increase to the West zone virtual zonal limits could be accommodated, the IESO intends to begin investigations into a long-term solution to the virtual zonal limits.</p> <p>The IESO kept stakeholders informed throughout the review process and remains open to discussion/questions. We look forward to continuing discussions on a long-term solution to virtual zonal limits in the coming months.</p> <ul style="list-style-type: none"> - The IESO is in agreement that new Capacity Auction processes, rules and requirements

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	<p>should be closely monitored following implementation to determine if adjustments must be made to achieve the intended design or correct any issues, and remains open to discussions and suggestions on the 2023 Capacity Auction enhancements.</p> <p>Regarding engagement on the 2024 Capacity Auction market rule and manual amendments, the IESO engaged with stakeholders since March 2024 on these items, which included various opportunities for stakeholder input. Any recommended modifications to those amendments that were put forth by stakeholders were considered or incorporated by the IESO. The IESO is currently investigating the issues identified by this stakeholder; these cannot be directly attributed to issues with the market rule/manual set that was implemented to enable the 2023 Capacity Auction enhancements or even the enhancements themselves, nor would an extended market rule review timeline prevent any issues from occurring in the future. Unfortunately, IESO processes may, at times, not act in the expected manner. In these cases, the IESO works to notify affected parties and troubleshoot as soon as possible.</p> <p>Regarding the release of the summer capacity testing results, which were issued approximately two weeks prior to the opening of the 2024 capacity qualification submission window, any disputes on the testing results will be addressed as quickly as possible through the settlement Notice of Disagreement process, as intended. This means that most resources that did not disagree with their capacity test assessments had clarity about their test results in advance of the opening of the qualification submission window, and well in advance of the closing of the qualification submission window.</p>

Commitment Management Options – Physical-Virtual Obligation Transfers

Stakeholder Feedback	IESO Response
<p>The Capacity Auction team proposes enabling transfers between physical and virtual resource types. (1) Is this something that would be of benefit to participants? (2) To what extent would this reduce the need to buy-out of commitments?</p> <p>(1) Stakeholders agree that transfers between physical and virtual resource types should reduce the need for buy-outs, as it will increase the number of parties that could conduct transfers.</p> <p>(2) Stakeholders have stated that enabling transfers between physical and virtual resource types would be beneficial, as it would increase the pool of transferees, allowing participants to be more adaptive, and improve liquidity as this pool expands. They request that the IESO also considers removing the transfer deadline to allow transfers within the capacity season. One stakeholder requested a review into transfers between internal and import resources.</p>	<p>The IESO appreciates stakeholders' general support on this proposal and has included this in the September 2024 draft commitment management options high-level design.</p> <p>For clarity, physical resources encompass generation, storage, system-backed import, generator-backed import, dispatchable load or physical hourly demand response resources. Virtual resource types include: virtual hourly demand response (residential or commercial and industrial) resources. There is currently no limitation on the transfer of capacity between physical resources, i.e., an obligation for a physical resource type may be transferred fully or partially to another eligible physical resource type as long as the transfer meets the criteria outlined in Chapter 7, Section 18.9 of the market rules.</p> <p>The IESO had previously engaged with stakeholders on in-period obligation transfers and recognizes the potential benefits this proposed enhancement could provide. In-period obligation transfers were not prioritized as part of the 2025 enhancements work plan due to the complexity associated with more frequent changes to an obligation and the various downstream activities and processes it could impact, e.g., settlements, capacity testing, etc. The Capacity Auction team will consider investigating this enhancement as part of the post-2025 enhancements priorities.</p>

Commitment Management Options – New Dispatchable Load Registration

Stakeholder Feedback	IESO Response
<p>The IESO proposes to formalize an existing solution that can be used by participants to avoid having to buy-out of their obligation.</p> <p>At the time of capacity qualification, a participant would submit two qualification requests and two auction deposits: one for the existing non-dispatchable load resource participating as a physical HDR, and one for the future dispatchable load resource.</p> <p>(1) Is this something that would be of benefit to participants? (2) To what extent would this reduce the need to buy-out of commitments?</p> <p>Stakeholders acknowledge the flexibility that the proposed solution would provide but believe that submitting two auction deposits would be a considerable barrier. As IESO is considering enabling capacity transfers between different resource characteristics, IESO should also enable a resource with a capacity obligation to change its characteristics, between physical and virtual, or between dispatchable and HDR, to ensure that a single resource is not required to place two deposits to enable its participation.</p>	<p>The general deposit rules require an aggregated deposit amount to be provided for all capacity auction resources under a capacity qualification request. The purpose of this is to establish the creditworthiness of the participant for auction activities and to ensure that the capacity auction participant fulfills any post-auction and forward period obligations.</p> <p>Once the necessary forward period activities have been completed and eligibility requirements have been met (i.e., the new dispatchable load resource has been fully registered, and the obligation has been transferred from the non-dispatchable load resource participating as a physical HDR to the dispatchable load resource) the deposit amount pertaining to the secondary capacity auction resource will be returned upon request. The Capacity Auction team sees the posting of this additional deposit amount as a temporary cost in support of avoiding greater risks, which may include having to buy-out of the obligation. With that said, the IESO will consider this feedback and determine if an alternative to the current requirements can be considered for this specific scenario.</p> <p>More details on the high-level design of this enhancement will be shared at September's engagement session.</p>

Commitment Management Options – Review of Current Buy-out Charge

Stakeholder Feedback	IESO Response
<p>The IESO proposes to re-assess and modify the buy-out charge to more accurately reflect the cost of procuring capacity in the auction.</p> <p>The proposal is to revise the buy-out charge to match the availability payment that would have been earned by the participant for the obligation amount that is being bought out.</p> <p>Do you have any feedback on how this might impact future Capacity Auction participation?</p> <p>Stakeholders are mixed on supporting an increase of the buyout charge.</p> <p>One stakeholder suggests that a buy-out charge should be high enough to incentivize good behavior and discourage gaming but should not be unduly punitive (where the participant is incentivized to commit to its obligation even though they genuinely cannot deliver thus triggering non-performance charges and compliance investigations). The IESO could also take additional steps at the authorization and qualification stages of the auction to screen a participant's ability to deliver.</p> <p>Other stakeholders feel that the current buyout level is sufficient and should not be increased as there is an array of reasons for why a buyout may be required. To avoid the use of buyouts, the IESO can focus on transfers to provide more flexibility instead. Other suggestions include enabling monthly capacity transfers or partial buy-outs, buy-downs or buy-ups that allow resources to better reflect capability and flexibility across a season.</p> <p>Another idea is to allow for incremental capacity in excess of an obligation to be offered for incremental standby and activation, and subject to associated revenue adjustments.</p>	<p>Thank you for these comments and suggestions. The IESO maintains that a change to the current buy-out charge is needed to ensure it continues to serve its purpose as a penalty for participants who are unable to fulfill their obligation. The IESO agrees that, as with all penalties, it is important to find the right level of penalty to incentivize the desired behaviour while not simultaneously creating an incentive for participants to avoid the penalty through other means.</p>

Finally, stakeholders note that the buy-out charge assessment that other jurisdictions use, as referenced by IESO, is inaccurate and is less costly than stated.	
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Commitment Management Options – Review Deposit and Forfeiture Rules

Stakeholder Feedback	IESO Response
<p>Regarding the proposed revisions to the deposit calculation and forfeiture rule, do stakeholders have any feedback on the following: How might the proposed changes outlined on slide 47 of the July engagement presentation impact future Capacity Auction participation?</p> <p>- Stakeholders would like the IESO to confirm the order in which the suggested changes on slide 47 would be applied, and the conditions under which these proposed changes would be activated.</p> <p>- A stakeholder suggested that this proposed solution be pursued after the other Commitment Management items have been assessed and implemented (such as physical-virtual transfers), one reason being that the solution's administrative effort may discourage smaller capacity auction parties from participating.</p>	<p>The forfeiture process exists today and is a repercussion for those participants that have a) not satisfied the applicable eligibility requirements prior to the start of the obligation period, including but not limited to capacity market participant (CMP) authorization, resource registration, etc., and b) not initiated the buy-out process.</p> <p>For greater clarity, it is not a consequence of failing to register sufficient contributors.</p> <p>By changing the forfeiture rules, the IESO is looking to standardize the enforcement of the buy-out charge for a participant's failure to meet its commitments prior to the start of the obligation period.</p> <p>More details on the high-level design of this enhancement will be shared at September's engagement session.</p>

Expanding Participation – Purpose and Overview

Stakeholder Feedback	IESO Response
<p>Do you have any feedback regarding the purpose and/or overview of this enhancement?</p> <p>- Stakeholders are concerned about the inclusion of variable generation in the Capacity Auction. Given the Capacity Auction’s current prices and the other procurement mechanisms available, it seems unlikely that VGs would be re-contracted or built using the Capacity Auction. They ask if the IESO could reconsider this proposal and focus on other priority areas of auction given the effort required.</p> <p>- A stakeholder notes that incrementally raising import constraints and allowing additional import interfaces would contribute to expanding participation in the Capacity Auction.</p>	<p>The “Expanding Participation” enhancement is in the spirit of this engagement’s objective statement: “Future Capacity Auction enhancements should help ensure the Capacity Auction can adapt to evolving market conditions and continue to be a competitive, transparent and accessible marketplace for a diverse range of capacity resources”. Previous expansions to resource eligibility in the Capacity Auction have proven to meet this objective statement.</p> <p>As greater amounts of wind and solar resources approach the end of their contracts, the IESO is considering the inclusion of these resources in the Capacity Auction for several important reasons. Among those listed above, this enhancement will serve as a bridging mechanism for existing VGs, allowing them to continue providing system value as they navigate the upcoming procurements as part of the IESO’s Resource Adequacy Framework.</p> <p>Regarding import limits, the IESO reviews previous import and intertie limits alongside auction parameters in preparation for each annual auction. This review also considers the potential quantity of contributions and the risks associated with over-reliance on external and internal resources. These limits will continue to evolve to reflect current market conditions and reliability needs.</p>

Expanding Participation – Resource Eligibility and Capacity Qualification

Stakeholder Feedback	IESO Response
<p>Does the proposed eligible VG qualification methodology accurately represent the resource adequacy contributions wind and solar resources provide to the system at times of peak?</p> <p>Stakeholders believe that an ELCC qualification process (similar to what is used in PJM) is appropriate. This methodology looks at the average delivery of the variable generation technology in Ontario (i.e. Solar Fixed Panel) and qualifies it accordingly. Alternatively, if available, the resource should be qualified based on its own historic average delivery during the capacity window.</p>	<p>The IESO agrees that historic average performance should be a part of the qualification methodology of VG resources. The Top 200 Hours of Ontario Demand approach achieves this, accounting for VGs' unique nature by assessing a resource's production during times of increased demand on the system to conduct a probabilistic assessment of what that resource could contribute during those times in the future.</p> <p>The IESO also agrees that an ELCC qualification method is a well-established capacity accreditation method for VG resources. However, it is a more complex, computationally-intensive methodology to execute that would be difficult for a participant to replicate. The Capacity Auction team has worked closely with the IESO's Planning team to discuss the benefits of several qualification methodologies. Through these discussions and others, the IESO has determined that the qualification of Capacity Auction VG resources on the basis of UCAP is an effective, transparent, and reliable methodology that aligns with the IESO's system planning processes and the methodology used in recent procurements within the IESO's Resource Adequacy Framework.</p> <p>Updates to the qualification methodology as part of the Expanding Participation draft high-level design will be presented in the upcoming Capacity Auction engagement session, with opportunities to provide additional feedback to the IESO.</p>

Expanding Participation – Capacity Testing and PAF Delivered MWs

Stakeholder Feedback	IESO Response
<p>Are any of the proposed testing requirements incompatible with the performance capabilities of eligible VG resources? If so, please indicate which testing requirements cannot be met and why they are incompatible with eligible VG resources.</p> <p>- A stakeholder has suggested that assessing the NPF-weighted delivery of the resource over the capacity window would be more appropriate than a dispatchable capacity test. The suggested test would allow for a better understanding of how that variable generator did relative to its qualification.</p> <p>- A stakeholder has stated that providing VGs flexibility in scheduling the capacity test, if implemented, should be extended to all resource types.</p>	<p>The IESO will consider these suggestions as part of the Expanding Participation high-level design to be presented in the upcoming Capacity Auction engagement session.</p>

Expanding Participation – Settlement Charges

Stakeholder Feedback	IESO Response
<p>Do you have any feedback regarding the proposal that settlement charge types applicable to Capacity Auction generation resources can also be applicable to eligible VG resources?</p> <p>A stakeholder says that applying the same settlement charge types to eligible variable generation (VG) resources as those used for traditional Capacity Auction generation resources may not fully account for the unique characteristics of wind and solar. VG resources operate differently from conventional generation due to their dependence on environmental factors, which can lead to variability in their output. This variability means that standard settlement charges, which are typically designed for dispatchable and predictable</p>	<p>The IESO agrees that the unique characteristics of VG resources must be captured in the settlement process. Initial reviews of existing settlement charge types for capacity generation resources indicate that these charge types will be applicable to Capacity Auction VG resources. It should be noted that although no new charge types are anticipated, small changes could be made to existing charge type equations to ensure full compatibility with VG resources.</p>

resources, may not accurately reflect the operational realities of VG resources.	
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General Comments/Feedback

Stakeholder Feedback:

Stakeholders asked the IESO to expand its procurement targets in the capacity auction and to look for ways of expanding participation of virtual and physical demand resources in constrained territories.

IESO Response:

Thank you for your comments. The IESO understands and is generally aligned with stakeholders' desire to investigate how virtual zonal limits can be modified or eliminated for future auctions to allow more capacity to participate in those zones.