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2023 Capacity Auction Enhancements

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Today's Discussion

- Proposed enhancements are at various stages of development:

- Implementation stage (Stream 1)

Discuss stakeholder feedback received, and status updates for proposed amendments to the Market Rules and Market Manuals reflecting the Stream 1 enhancements, posted [March 2023](#)

- Design stage (Stream 2)

Present final Performance Adjustment Factor (PAF) design and review implementation timelines

Enhancement Objectives

- Enhancements are needed to drive competition, improve resource performance, maintain a reliable electricity system, and contribute to ratepayer value as auction targets increase
- Working with stakeholders better positions the capacity auction for success
- Evolving the capacity auction includes attracting a variety of resources and increasing competition



Stream 1 – Market Rule and Manual Amendment Feedback and Status Updates

Key Stakeholder Feedback and IESO Response

- The IESO invited feedback on items presented at the [March 2023 engagement meeting](#)
- IESO responses to stakeholder feedback are:
 - Summarized in the following slides
 - Posted to the [Capacity Auction Enhancements](#) engagement webpage with the respective March 30 engagement and April 13 stakeholder feedback. Topics include: In-period cleared UCAP adjustment, Audit, Contributor outage, Dispatch charge
- Feedback on proposed amendments to the Market Rules and Market Manuals has been considered and integrated as noted in the following slides

In-Period Cleared UCAP Adjustment (1 of 3)

Feedback: In-period cleared UCAP adjustment should be based on the final settlement statement to allow for time to process a notice of disagreement (NOD) if one is filed.

Response: The IESO agrees this timing must be considered in the implementation of the in-period adjustment and has made the following clarifications in the amendments to the Market Rules and Market Manuals.

In-Period Cleared UCAP Adjustment (2 of 3)

Market Rule and Manual Updates: The in-period cleared UCAP adjustment will apply effective 7 business days following the issuance of the preliminary settlement statement if a NOD is not filed. The associated in-period UCAP adjustment charge will apply effective the first day of the obligation period until the effective date of the in-period adjustment.

If a NOD is filed, the capacity obligation will not be adjusted downward while the NOD is being processed, which could be near the end of the obligation period. While the NOD is being processed, the in-period cleared UCAP adjustment charge will be applied effective the first day of the obligation period to the end of the obligation period. If the NOD results in a change to the capacity test result, then the in-period cleared UCAP adjustment charge will be recalculated if necessary.

In-Period Cleared UCAP Adjustment (3 of 3)

Clarification: Where the NOD is filed, and the capacity obligation is not adjusted downwards, the participant will continue to be responsible for meeting their capacity obligation and will be subject to any applicable non-performance charges for failure to do so.

If at any time during the obligation period, either before or after the capacity test, a resource does not have the capacity to meet its obligation they are expected to update their bids to reflect their actual capability or perform a capacity buy-out if necessary.

A reminder that availability charges incurred for the adjusted amount of capacity in an in-period adjustment are considered in the calculation of the in-period cleared UCAP adjustment charge.

Audit

Feedback: No changes should be made to the audit provision until audits can be reviewed holistically.

Response and Market Rule Impact: No changes will be made to the audit provision in section 4.7J.4 of Ch. 9. The audit framework will be reviewed holistically.

The IESO has removed the proposed amendments to section 4.7J.4 of Ch. 9. In addition, it is now specified in Market Manual 12 and Market Manual 5.5 that the in-period cleared UCAP adjustment will not be reassessed as a result of a measurement data audit.

Contributor Outage Solution

Feedback: Stakeholders indicate changes to audit-related provisions in Market Manual 12 relating to contributor outages are out of scope for this engagement.

Response: Any change or impact to HDR measurement data submissions will inherently need to be considered in the audit, since the purpose of the audit is to validate the integrity of HDR measurement data submissions. If the contributor outage solution is not used, the audit process will be conducted as it is currently. In order to verify the contributor outage solution was used appropriately, the IESO must evaluate the contributor's interval data, which is only available at the time of an audit.

Dispatch Charge

Feedback: Stakeholders requested clarification on whether the 15% deadband on the dispatch charge assessment is an upper or lower deadband, or both.

Response: The 15% deadband in the assessment of the dispatch charge is a lower deadband.

Market Rule and Manual Impact: The terminology used in Market Manual 5.5 will be adjusted from 'deadband' to 'threshold'. This will be updated as part of the Stream 2 market rule and manual amendments.

Summary

The table below summarizes amendments made to the Market Rules and Manuals because of stakeholder feedback received. Amendments included in stream 1 will be reflected in amended documents posted as part of the Technical Panel meeting seeking a Vote to Post (May 16), and amendments made under stream 2 will be reflected in amended documents posted for the May stakeholder engagement session.

Feedback Topic	Market Rule Update	Stream	Market Manual Update
In-period cleared UCAP adjustment	Ch. 7, s. 19.4.18 Ch. 9, s. 4.7J.2.9	1	Market Manual 5.5: Physical Markets Settlement Statements, s. 1.6.26.3.8 Market Manual 12: Capacity Auctions, s. 5.3.4
Audit	Ch. 9, s. 4.7J.4	1	Market Manual 5.5: Physical Markets Settlement Statements, s. 1.6.26.3.8 Market Manual 12: Capacity Auctions, s. 5.3.4
Dispatch Charge	-	2	Market Manual 5.5: Physical Markets Settlement Statements, s. 1.6.26.3.4



Stream 2 – Performance Adjustment Factor Final Design Updates

Stream 2 – PAF Final Design Updates (1 of 4)

- The IESO has updated the design of the PAF based on suggestions from stakeholders provided in March 2023
- The revised PAF design will encourage participants to submit accurate ICAP values that are supported by historical performance data, while applying a de-rating factor based on historical data for ICAP values that exceed previously demonstrated performance
- The final design has been reflected in the following documents, posted to the engagement webpage in advance of the April engagement session:
 - Design Memo 10.1 - Performance Adjustment Factor Final Design
 - Illustrative Examples – Capacity Qualification

Stream 2 – PAF Final Design Updates (2 of 4)

- The PAF will be calculated and applied to the capacity qualification methodology based on three main data inputs:
 - A. The cleared ICAP the resource was required to deliver to during the previous seasonal obligation period's capacity auction test
 - B. The capacity the resource was assessed by the IESO to have delivered during the previous seasonal obligation period's capacity auction test
 - C. The submitted ICAP for the seasonal obligation period for which the resource's capacity is being qualified.

Stream 2 – PAF Final Design Updates (3 of 4)

- The IESO will use capacity test activation data from the previous summer obligation period to determine a PAF for the summer obligation period
- Capacity test activation data to determine a PAF for winter obligation periods will have to be sourced from the most recently completed winter obligation period

Stream 2 – PAF Final Design Calculation Method (4 of 4)

The PAF will be calculated and applied based on the following three scenarios:

1. If submitted ICAP is less than or equal to capacity delivered during the most recent applicable seasonal capacity test, then PAF is equal to one
2. If submitted ICAP is greater than or equal to the ICAP cleared in the last capacity auction, then a PAF is applied and calculated as follows, based on data from the previous seasonal obligation period capacity test:

$$\text{PAF} = \text{Delivered Capacity} / \text{Cleared ICAP in previous obligation period}$$

3. If submitted ICAP is less than the ICAP cleared in the last auction, and greater than the capacity delivered during the most recent seasonal capacity test, then a PAF is applied and calculated as follows:

$$\text{PAF} = \text{Delivered Capacity in previous test} / \text{Submitted ICAP in current obligation period}$$

Stream 2 – PAF Design Completed

- These updates represent the complete PAF design
- Design changes will be added to existing qualification methodology

Complete Capacity Qualification Methodology

- Beginning with the 2023 Capacity Auction, each resource will undergo a pre-auction capacity qualification process to determine an unforced capacity (UCAP) value that can be offered into the auction
- The approach to qualifying capacity, with the PAF, for all resources is generalized as follows:

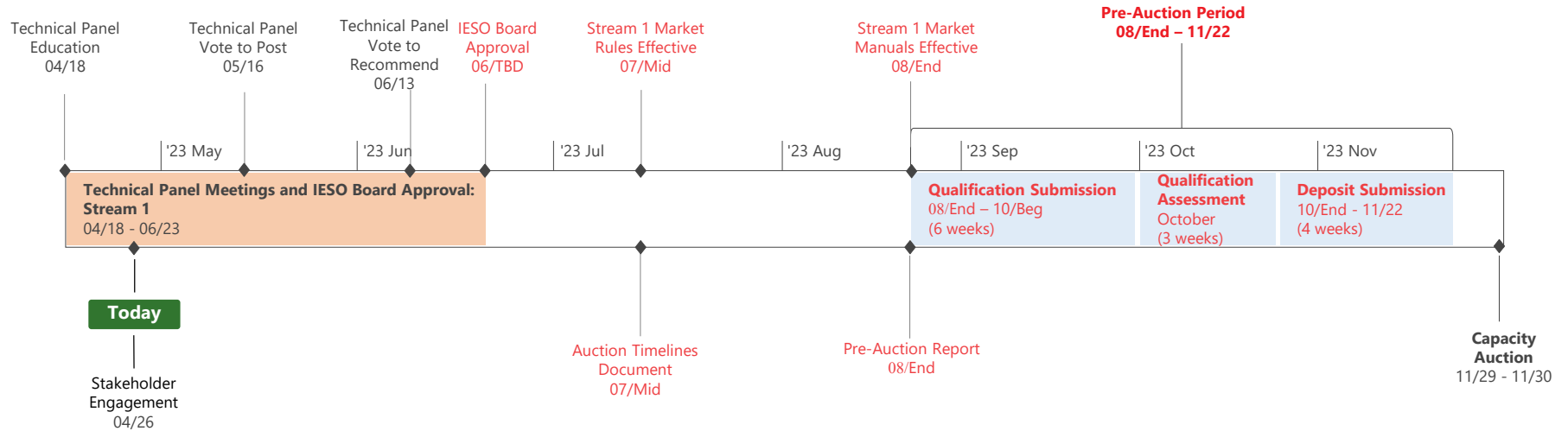
$$\text{UCAP (MW)} = \text{ICAP (MW)} \times \text{Availability De-Rating Factor} \times \text{PAF}$$

- Where: PAF is the Performance Adjustment Factor, applicable to an individual resource, as based on assessed performance during a previous seasonal capacity auction capacity test



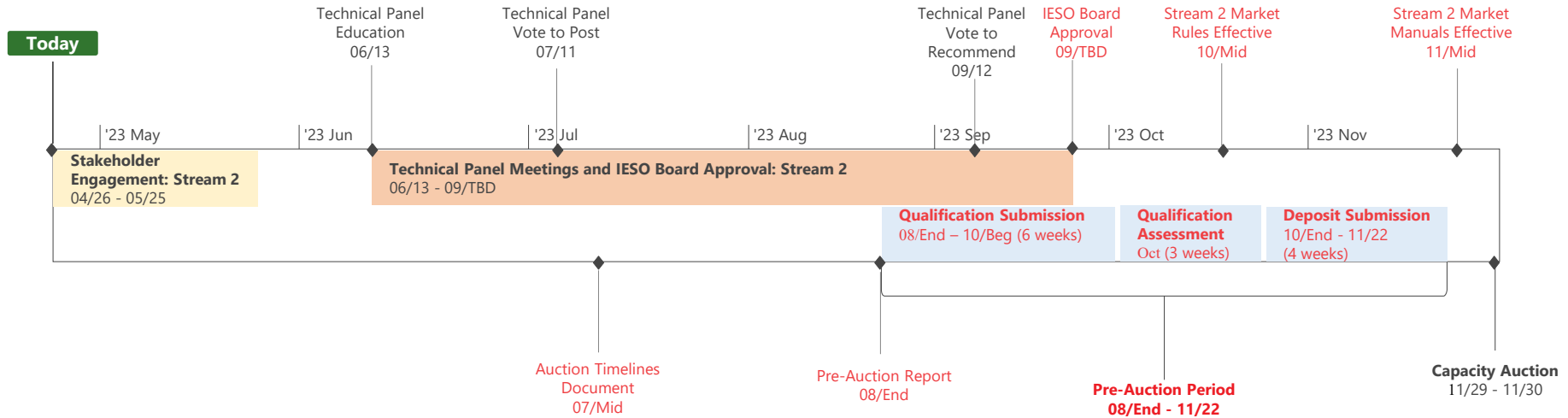
Wrap-up and Next Steps

Timeline: Stream 1



*Activities shown in red are estimates and will be finalized in the Auction Timelines document.

Timeline: Stream 2




*Activities shown in red are estimates and will be finalized in the Auction Timelines document.

Summary

- Input from stakeholders better positions the capacity auction for success, contributing to maintaining a reliable electricity system
- Stream 1 enhancements are at the implementation stage; amendments to Market Rules and Market Manuals have been updated based on stakeholder feedback
- The Stream 2 final PAF design stage is complete

Next Steps

- You are welcome to provide feedback on items anytime
- **Stream 2** draft MR/MMs will be available in May for stakeholder review and comment
- **Stream 1** draft MR/MM amendments will be presented to the Technical Panel on the following dates:
 - April 18 – Education 
 - May 16 – Vote to Post
 - June 13 – Vote to Recommend

Thank You

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APPENDIX

Stream 2 – PAF Final Design Updates Example

To illustrate revisions to the PAF design, let us look at a non-HDR resource that submits an ICAP value of 90MW during qualification process. Cleared ICAP from the previous auction is 100MW and delivered capacity is 80MW. Availability de-rate of 7% is applied to the resource.

Since submitted ICAP is greater than the delivered capacity but less than cleared ICAP, the resource falls under Scenario 3 of the proposed design as described in design memo 10.1. PAF and UCAP will be calculated as follows:

- $PAF = 80/90 = 0.889$
- $UCAP = 90 * (1 - 0.07) * (0.889) = 74.4 \text{ MW}$