

DECEMBER 15, 2021

2022 Capacity Auction Enhancements - Implementation

Disclaimer

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Purpose

- The IESO has completed a first draft of the Market Rules and Market Manuals reflecting the 2022 capacity auction enhancements for stakeholder review and comment
- This meeting is to provide a high level overview of the mapping of the design to the rules and manuals and highlight some key areas of clarification captured in the draft documents to help capture stakeholder feedback

Capacity Auction Implementation Timeline

DRAFT AND STAKEHOLDER

APPROVE AND IMPLEMENT

Oct 21 SE
Introduce
Implementation
Timeline

Nov 23 SE
Discuss zonal
group limits,
point in time

Dec 15 SE
Present 1st draft
Market Rules
(MR) & Market
Manuals (MM)

Q1 2022
Jan SE
Present draft MR
and MM based on
feedback from Nov

Q2 2022
Feb SE
Present final draft
of MR and MM
before Technical
Panel

Q1/Q2 2022
March-June
Technical Panel
and Board
Approval

Q2 2022
Market Trial

Q3 2022
July
MR and MM
final and
baselined

Q3 2022
Pre-Auction
Period
begins

Design Proposal Update – Implementation of PAF

- The IESO sent out a communication on November 29 that future performance adjustment factors (PAFs) for all resources would be determined based on assessed performance starting with obligation periods of the **December 2022 Auction**
- This proposal is in response to stakeholder concerns and to ensure the assessments are completed within the new performance assessment framework proposed for the 2022 Auction
- The revised implementation has been reflected in redlined rules and manuals and will be reflected in the Final CA Enhancements Design Document – to be communicated in February 2022 and aligned with the implementation stakeholder engagement plan



Areas of Clarification: Market Rules and Manuals

UCAP Formula: Availability De-rate

Clarifications have been made and details added to the formula for the availability de-rating factor in the UCAP calculation for some resources. In general, where 'average' has been used it has been replaced with 'median'. Additional clarifications for dispatchable hydro and dispatchable loads are outlined, below:

Dispatchable Hydro

Design Document

Availability De-rating Factor = Average[(AQEI(MWh) + Scheduled Operating Reserve (MWh))/ICAP(MWh) in top 200 hours of Ontario demand for the last 5 years

Market Manual

Availability De-rating Factor = Median[(AQEI(MWh) + Scheduled Operating Reserve (MWh))/MAPC(MW)] in top 200 hours of Ontario demand **per season per year over** the last 5 years

Where MAPC means the Maximum Active Power Capability, in MW, under any conditions without station service being supplied by the unit.

Dispatchable Load

Design Document

Availability De-Rating Factor = (Average hourly bids in top 200 hours of Ontario demand/ICAP)

Market Manual

Availability De-Rating Factor = Median(hourly bids **quantity /maximum seasonal energy bid quantity**) in top 200 hours of Ontario demand **per season**

Rationale

Median: To be consistent with existing IESO planning methodologies where we use median to calculate the capacity contribution of resource.

Availability de-rating factor: Should be assessed independently of a resource's submitted ICAP.

Hydro: The factor should be based on past performance normalized against the registered MAPC*

DL: The factor should be based on past performance (through hourly energy bids) normalized against the maximum seasonal energy bid quantity

* Market Participants provide this MAPC via the IESO resource registration process

Generator-backed Import Resource Participation

- A successful participant with a generator-backed capacity import will have an import obligation. The import market participation framework differs in some important aspects compared to internal resources
 - Imports transactions are offered and scheduled using boundary entity resources (rather than being modelled to an individual external facility)
 - Imports are scheduled in the 1-hour-ahead pre-dispatch and fixed for an hour
 - Imports are subject to unique tagging requirements to facilitate interchange between jurisdictions
 - Imports are subject to congestion price risk and failure charges in some circumstances

Continued

- To align the capacity obligation with the underlying import participation framework, participants with a generator-backed import resource will receive a single capacity obligation, which may be backed by multiple generating units
- Each generation unit under the generator-backed capacity import resource will be qualified separately, and the qualified amounts of all units identified will be summed into a single UCAP value for the participant
- This single value can be offered into the auction
- All performance will be evaluated on the single import obligation (i.e. availability assessment at the intertie), but data submissions (i.e. for tests) must be made for each applicable generation unit



Market Rule and Manual Drafts

Summary of Drafts

- Draft rule and manual amendments reflect design enhancements presented to stakeholders for the 2022 Capacity Auction
- Zonal groups and point in time amendments will be presented at the January stakeholder engagement
- The new testing framework and enhanced performance assessment presented at the November stakeholder engagement are included in the drafts posted for feedback
- The drafts also include some minor clean up of sections for consistency

Design Enhancement to Document Mapping

Enhancement	Sub-Enhancement	Design Reference	Market Rule Reference	Market Manual Reference
#1: Capacity Qualification	-	-	Design Document (Oct. 21, 2021)	Ch. 7, s. 18 12: Capacity Auctions
#2 Performance Assessment Modifications	Consistent Capacity Tests	Improvement #1: Testing to ICAP	-	Ch. 7, s. 19 12: Capacity Auctions
		Improvement #2: More Similar Performance Assessment Thresholds	Nov. 23 SE, slides 9-16	- 12: Capacity Auctions, 5.5: Physical Market Settlement Statements
	Improve Performance	Improvement #3: Common Test Notification	-	Ch. 7, s. 19 12: Capacity Auctions
		Improvement #4: Application of Future Capability De-Rates	Design Document (Oct. 21, 2021)	- 12: Capacity Auctions
		Improvement #5: Incenting Performance at Time of System Needs	Nov. 23 SE, slides 3-6	Ch. 9, s. 4.7J 5.5: Physical Market Settlement Statements
		Fair Assessments	Improvement #6: Availability Charge True-Up	Design Document (Oct. 21, 2021)

The purpose of this table is to provide a broad overview of the proposed design enhancements as they relate to the market rules and market manuals. Please note that not all relevant design enhancements and corresponding references to the market rules and the market manuals may be captured

Design Enhancement to Document Mapping

Enhancement	Sub-Enhancement	Design Reference	Market Rule Reference	Market Manual Reference	
#3: Expand Participation to Generator-Backed Imports	Eligibility	-	Design Document (Oct. 21, 2021)	Ch. 7, s. 18 12: Capacity Auctions	
	Pre-Auction Requirements	-	Design Document (Oct. 21, 2021)	Ch. 7, s. 18 12: Capacity Auctions	
	Obligation Period Requirements	Capacity Testing/Confirmation of Resource Capability	Design Document (Oct. 21, 2021)	Ch. 7, s. 19	12: Capacity Auctions
		Availability Performance Assessment	Design Document (Oct. 21, 2021)	Ch. 9, s. 4.7J	5.5: Physical Market Settlement Statements
		Capacity Call	Design Document (Oct. 21, 2021)	-	4.3: Real-Time Scheduling of Physical Markets, 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets
		Outage Submission Requirements	Design Document (Oct. 21, 2021)	-	7.3: Outage Management

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Draft Documents

- All draft Market Manuals as well as a summary of the proposed Market Rule Amendments are posted to the Resource Adequacy Engagement page
- Table to the right indicates which sections of the Manuals have been added or contain edits for reference
- Summary of proposed Market Rule amendments contains reference to sections and sub-sections of rules proposed for amendment.

Market Manual	Sections
4.2: Submission of Dispatch Data in the Real Time Energy and Operating Reserve Markets	2.5.1 2.5.3 2.7 (new) Appendix E
4.3: Real Time Scheduling of the Physical Markets	6.8 (new)
5.5: Physical Markets Settlement Statements	1.6.26.3.2A 1.6.26.3.2B 1.6.26.3.3 1.6.26.3.5 1.6.26.3.6 (new) 1.6.26.3.7 (new)
IESO Charge Types and Equations	3.1 (definitions) Equations 1314-1324
7.3: Outage Management	2 3.4 (new) 4.1 4.2.4,
12: Capacity Auctions	Most sections have been edited, with the following sections containing the most substantial edits: 3.3 (Capacity Qualification) 5.3 (Testing of Capacity Auction Resources)

Next Steps

- Stakeholders are invited to submit comments, questions and feedback on the draft Market Rules and Market Manuals to engagement@ieso.ca by **January 7, 2022**
- Note: the two areas of clarification presented here have been included in the draft Market Rules and Manuals

Thank You

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