June 2020 Capacity Auction Market Trial

IESO

March 11, 2020



Purpose

To walk prospective capacity auction participants through pre-auction, auction, and post-auction related tasks and activities in the IESO's Sandbox testing environment in Online IESO, prior to participation in the June 2020 Capacity Auction.



Agenda

- CA Process Overview
- Market Trial Activities
- Online IESO Live Demonstration
- Market Trial Test Plan
- Questions



Capacity Auction Overview

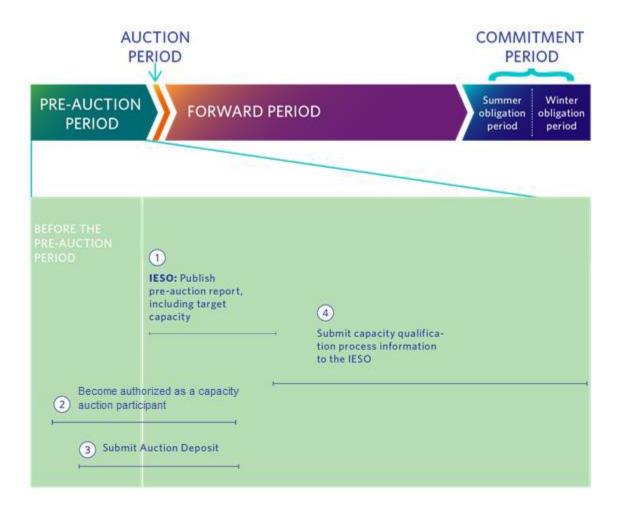
- On a high level, the CA's objective is to secure capacity to meet Ontario's future resource adequacy needs;
- Auction participants will set the amount of capacity they wish to offer into the auction for each Obligation Period (Summer/Winter);
- Committed resources will be required to make the full amount of their cleared capacity available during the obligation period;
- Eligible Resources for June 2020 Demand Response Resources, Capacity Generation Resources, Capacity Storage Resources and System-backed Import Resources.



CA Process Overview

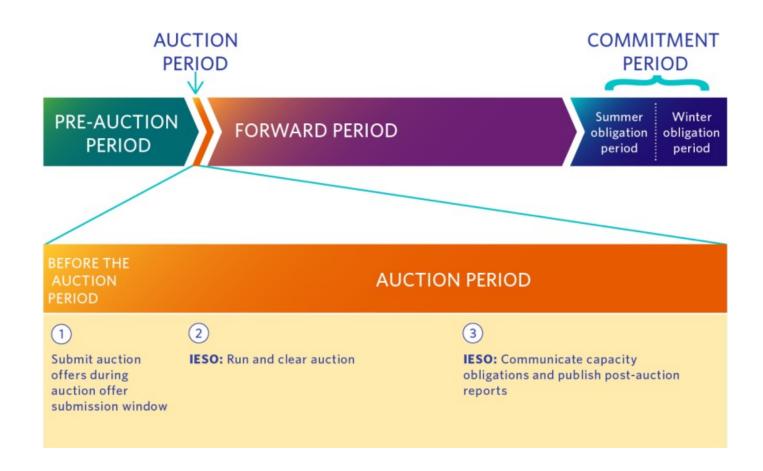
PRE-AUCTION **AUCTION FORWARD** COMMITMENT PERIOD PERIOD PERIOD PERIOD At least **Approximately Approximately** 1 year 2 months prior 1 week 11 and 17 months to auction Summer Winter Winter Summer obligation obligation obligation obligation period period period period (4) · Successful capacity auction · Auction parameters are · Capacity auction participants participants authorize as as · Period that cleared resources published submit offers at start of offer capacity market participants must meet capacity obligations submission window by participating in the · Organizations authorize as · Successful capacity auction energy market capacity auction · Auction selects cleared participants post prudential participants capacity using the support Performance assessed to demand curve determine payments and · Capacity auction partici · Successful capacity auction non-performance charges pants enroll potential · Auction results are published participants may transfer or capacity auction resources buy out their capacity and their capacities obligation

Pre-Auction Period



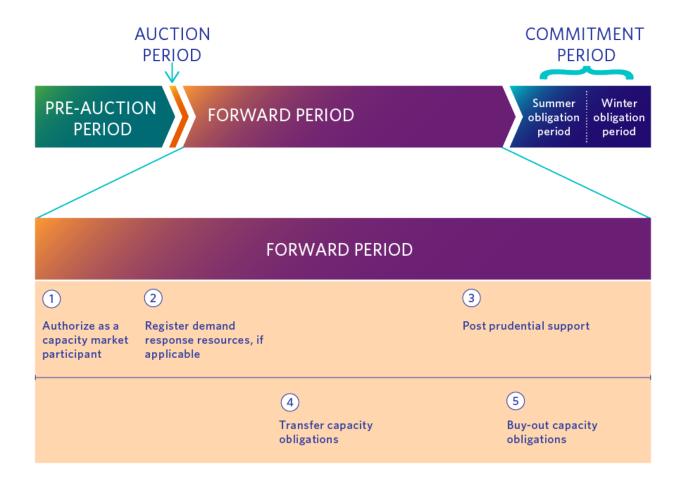


Auction Period





Forward Period



Commitment Period





Market Trial Schedule – Overview

Timeframe	Activity	Responsibility	Dates
	Publish Pre-Auction Report in Sandbox	IESO	March 10
Pre-Auction	- Authorize as Capacity Auction Participant (if not already authorized)-Submit Capacity Auction Enrollment Request and Capacity Auction Deposit	Market Trial Participants	March 11-17
Auction	- Submit Capacity Auction Offers		March 18 (8:00 AM to 4:00 PM EST)
	Generate Capacity Obligations	IESO	March 19
Post-Auction	 - Authorize as Capacity Market Participant (if not already authorized) - Manage Resources -Assign Resource to Capacity Auction Obligations 	Market Trial Participants	March 20-24



Market Trial Schedule - Details

Activity	Responsibility	Dates	Instructions
Post-Auction Registration - Authorize as Capacity Market Participant (CMP) - Manage Resources - Assign Resource to Capacity Auction Obligations	Market Trial Participants	March 20- 24	Starting March 20th, Market Trial Participants should initiate the required steps for CMP authorization (if applicable) and be aware of an overnight IT system update required to capture the assignment of new Market Participant Roles for your organization.



Market Trial – Out of Scope Activities

The following activities are not in scope for Market Trial:

Activity		
Submission of Virtual Demand Response Measurement Data		
Public & Private Post-Auction Reports		
Settlement processes, including metering audits of demand response resources		
Obligation transfers, buy-outs and real time operations		

• Activities in Online IESO are enabled for the interested Market Trial participants to test in the Online IESO Sandbox environment.

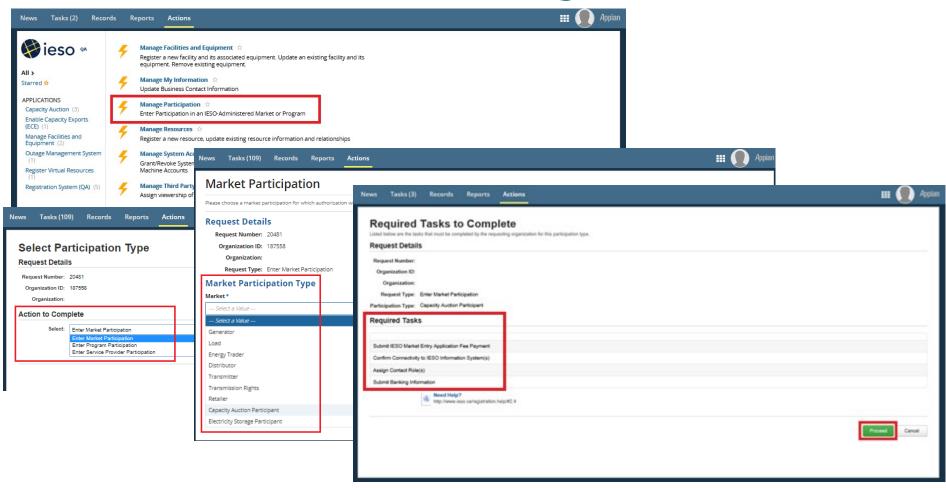
Online IESO Demonstration

Details of the respective activities that should be completed for each resource type can be found in the Market Trial Test Plan. For the purposes of this webinar, the following workflow will be discussed through the use of screenshots and/or a live demonstration in Online IESO:

- 1. Initiate and complete CAP authorization;
- 2. View Pre-Auction report;
- 3. Submit Capacity Enrollment request and Capacity Auction Deposit;
- 4. Submit Capacity Auction Offers;
- 5. Initiate and complete CMP authorization;
- 6. Register/Update Resources for Virtual/Physical Capacity;
- 7. Assign Resource to Capacity Auction Obligation;
- 8. Add Contributors to Virtual/Physical Capacity Obligation;
- 9. Verify assignment of Resource(s) to Capacity Obligation.



1. Authorize as a CAP using Online IESO

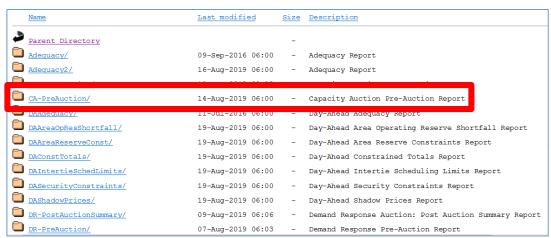


• Link to Online IESO Sandbox: https://onlinesandbox.ieso.ca/suite/





2. Pre-Auction Report



- Link to Pre-Auction Report in Sandbox: <u>http://reports-sandbox.ieso.ca/public/</u>;
- Confirm access to the Pre-Auction report;
- View content.





Milestone	Due Date
CAP to start and complete capacity qualification (including posting auction deposit)	Mar 11, 2019 - Mar 17, 2019
CAP to submit Capacity Auction offers	Mar 18, 2019
IESO to publish Capacity Auction results	Mar 19, 2019

Demand Curve Elements	Summer Obligation Period	Winter Obligation Period
Target Capacity (MW)	675	675
Capacity Auction Reference Price (\$/MW-day)	413	413
Minimum Capacity Auction Clearing Price (\$/MW-day)	0	0
Maximum Capacity Auction Clearing Price (\$/MW-day)	516	516
Minimum Auction Capacity Limit (MW)	0	0
Maximum Auction Capacity Limit (MW)	1215	1215
Maximum Auction Capacity at the Maximum Capacity Auction Clearing Price (MW)	540	540

IESO Electrical Zones Mapping IESO Zonal Map Tool

Zonal/Import Constraints

	Zone	Summer Obligation Period	Winter Obligation Period
BRUCE		Not Applicable	Not Applicable
EAST		Not Applicable	Not Applicable
ESSA		Not Applicable	Not Applicable
NIAGARA		Not Applicable	Not Applicable
NORTHEAST		Not Applicable	Not Applicable
NORTHWEST		Not Applicable	Not Applicable
OTTAWA		Not Applicable	Not Applicable
SOUTHWEST		Not Applicable	Not Applicable
TORONTO		Not Applicable	Not Applicable
WEST		Not Applicable	Not Applicable

Zone	Summer Obligation Period	Winter Obligation Period
BRUCE	100	100
EAST	Not Applicable	Not Applicable
ESSA .	Not Applicable	Not Applicable
NIAGARA	35.1	35.1
NORTHEAST	66.2	66.2
NORTHWEST	56.1	56.1
OTTAWA	Not Applicable	Not Applicable
SOUTHWEST	Not Applicable	Not Applicable
TORONTO	Not Applicable	Not Applicable
WEST	69.8	69.8

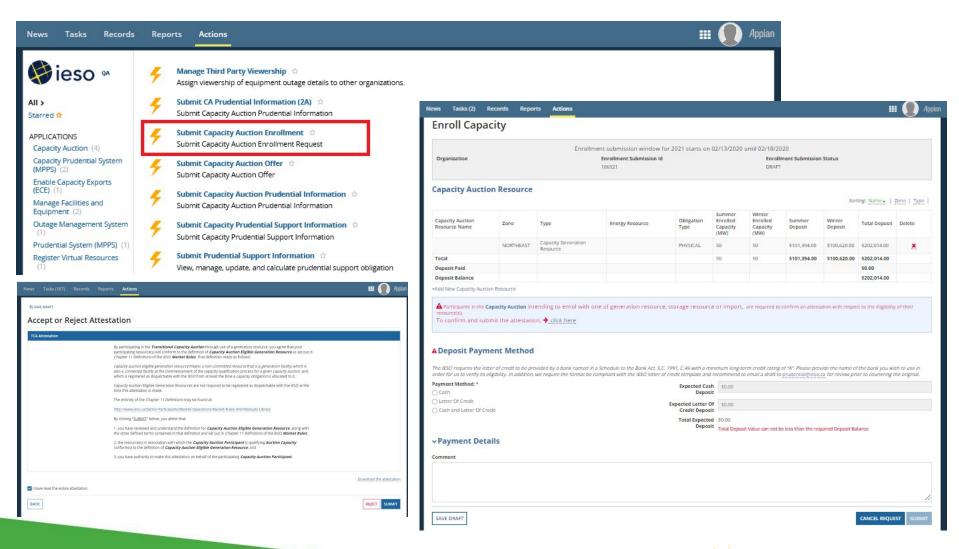
	Zone	Summer Obligation Period	Winter Obligation Period
BRUCE		100	100
EAST		305	305
ESSA		100	100
NIAGARA		20.2	20.2
NOR THEAST		63.2	63.2
NORTHWEST		2.1	2.1
OTTAWA		126.9	126.9
SOUTHWEST		287	287
TORONTO		383.2	383.2
WEST		69.8	69.8

Import Constraints (MW)						
Import Limit	Summer Obligation Period	Winter Obligation Period				
Maximum Capacity Import Resource Limit	250	250				

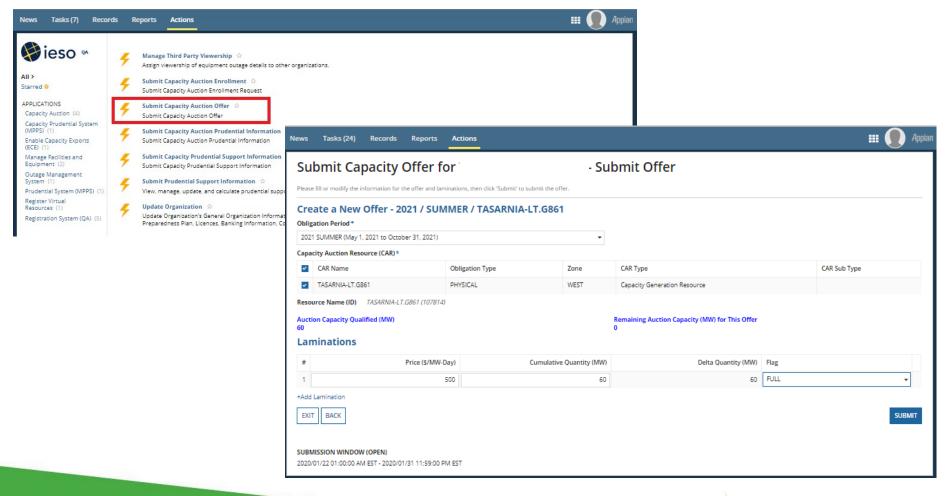
Interface Import Limits (MW)						
Interface	Summer Obligation Period	Winter Obligation Period				
PQ-OTTAWA	1865	1865				
Whiteshell	225	300				



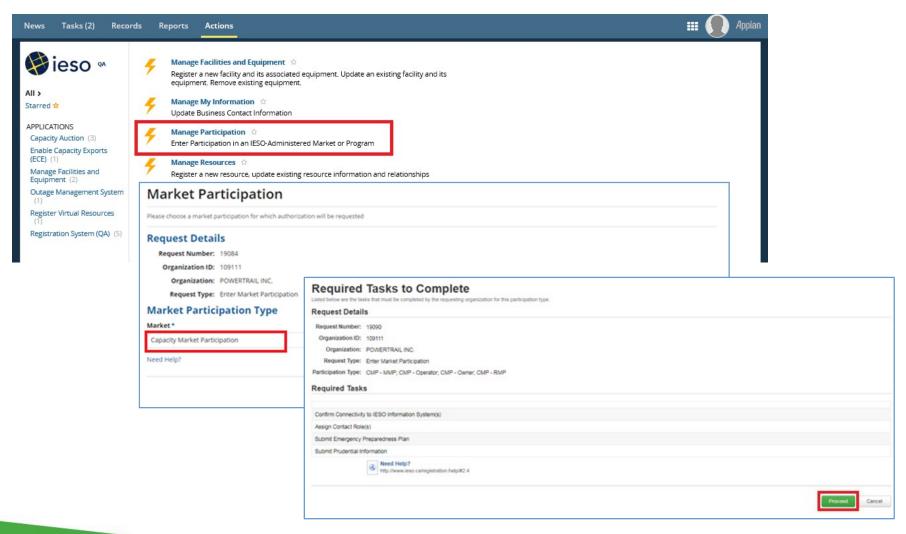
3. Capacity Enrollment using Online IESO



4. Submit Capacity Auction Offers using Online IESO



5. Authorize as a CMP using Online IESO

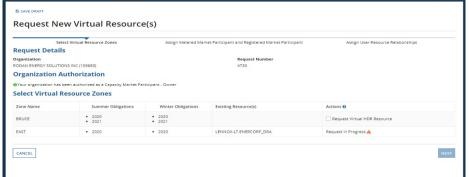


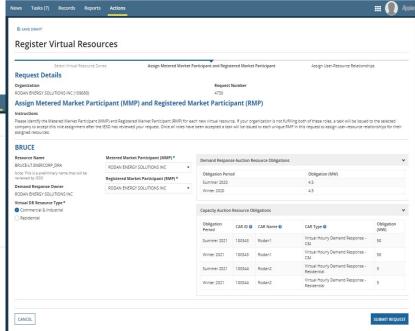


6. Register/Update Resources for Virtual

Capacity Obligations



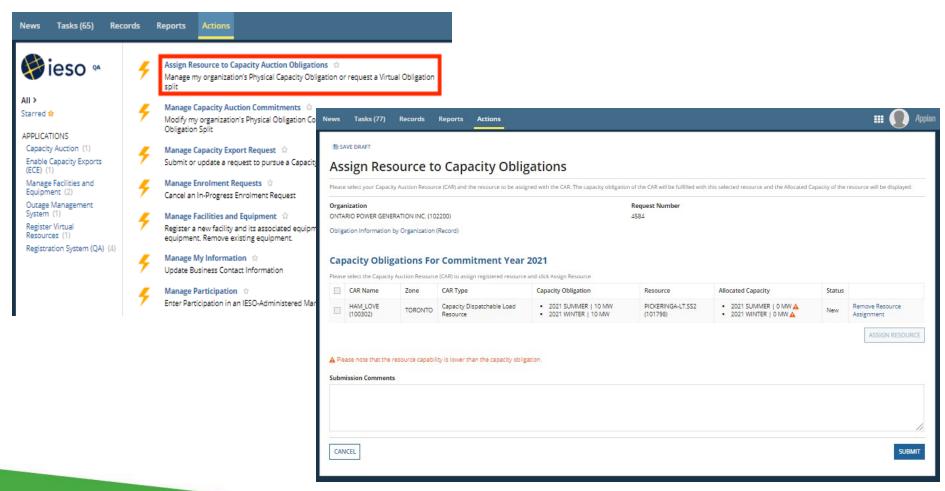




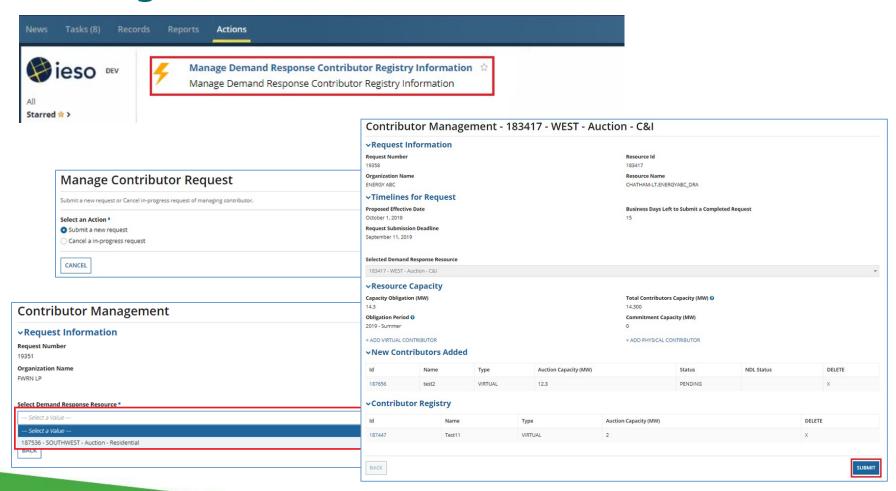
Request Details						
Organization ID: 187556				Request Number:	4183	
Organization Name: YZ AGG COMPANY					Register Resources for Virtual Capacity Obligations	
Facility Name:					8/16/2019 6:36 AM EST	
				Request Status:	In Progress	
Added User/API Resource Rel	ationship					
User/API	T	Resource				
Drap, Amy		CHATHAM-LT.ZYAGO	G_DRA			
Removed User/API Resource	Relationship					
User/API			1	Resource		



7. Assign Resource to Capacity Auction Obligations

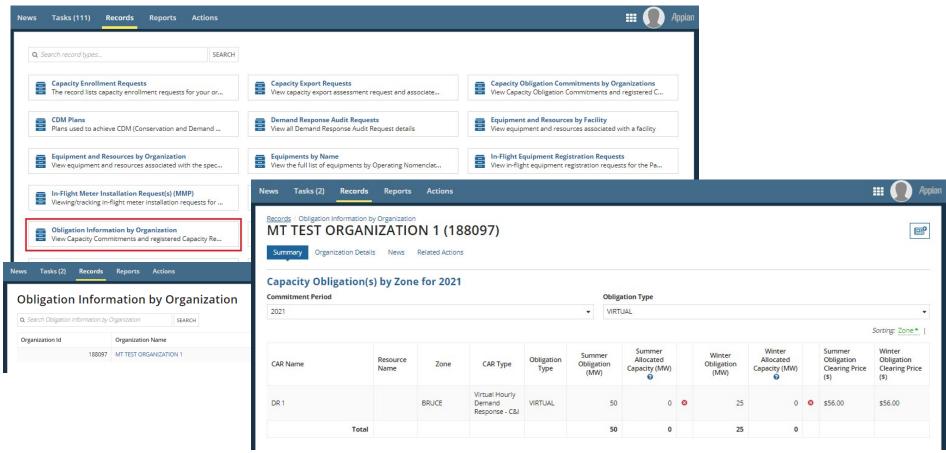


8. Add Contributors to Virtual Capacity Obligation





9. Verify assignment of Resource(s) to Obligation



Post-Auction Report

• The Post-Auction Report is out of scope for Market Trial.



Capacity Auction: Confidential Post-Auction Report

For XXXXXX Created at Feb 19, 2019 14:27:26 <u>Help</u>

SAMPLE

Capacity Auction Periods

Commitment Period	Season	Obligation Period
May 1, 2021 -	Summer	May 01, 2021 - Oct 31, 2021
Apr 30, 2022	Winter	Nov 01, 2021 - Apr 30, 2022

Capacity Obligations

Capacity obligations								
Capacity Obligation ID	CAR Name	Season	Zone	CAR Type	Capacity Obligation (MV)	Capacity Auction Clearing Price (\$ / MW-day)	Capacity Obligation Start Date	Capacity Obligation End Date
7421	CAR1	Summer	EAST	HDR - Physical	29	334.64	May 1, 2021	October 31, 2021
7422	CAR 2	Summer	NIAGARA	Dispatchable Load	11.2	334.64	May 1, 2021	October 31, 2021
7423	CAR3	Summer	TORONTO	Capacity Generation Resource	1	334.64	May 1, 2021	October 31, 2021
7424	CAR4	Summer	ESSA	Capacity Storage Resource	6.5	334.64	May 1, 2021	October 31, 2021
7425	CAR5	Summer	NORTHWEST	HDR - Virtual C&I	21.2	334.64	May 1, 2021	October 31, 2021
7426	CAR6	Summer	EAST	Capacity Import Resource	63.7	334.64	May 1, 2021	October 31, 2021
7427	CAR 7	Summer	OTTAWA	Capacity Storage Resource	5.4	334.64	May 1, 2021	October 31, 2021
7428	CAR8	Winter	NORTHEAST	Capacity Storage Resource	8	300	November 1, 2021	April 30, 2022
7429	CAR9	Winter	WEST	Capacity Generation Resource	5.5	300	November 1, 2021	April 30, 2022



Market Trial Test Plan

- Initiate and complete all of the applicable Market Trial activities in Online IESO for one of the following scenarios (only one will apply to any Market Trial participant):
 - 1. Organization with a Capacity Auction eligible Generation Resource;
 - 2. Organization with a new or existing Virtual Demand Response Resource;
 - 3. Organization with a new or existing Physical Demand Response Resource;
 - 4. Organization with a Capacity Storage Resource;
 - 5. Organization with a System-backed Import Resource.

Market Trial Test Plan – Participant Expectations

- Complete activities by navigating through each of the Online IESO screens (per the steps provided in the Online IESO reference guide);
- Identify and submit any potential defects in the system, or suggest improvements for the IESO's consideration using the template in Appendix B of the Market Trial Test Plan.

Other Information

- On February 25th the IESO posted the Market Trial Test Plan and issues logging template for reporting issues/suggesting enhancements to the Capacity Auction active engagement webpage;
- In an event you encounter any technical issues using Online IESO, please email the IESO immediately at capacity.auction@ieso.ca;
- It is suggested that Market Trial participants conduct testing during business hours (i.e. 8 am to 4 pm) to ensure that the appropriate support is available should any issues arise, and to approve tasks generated as part of the auction process.



Questions

