

MAY 8, 2024

Transmission Rights Market Enhancement and Platform Refresh Project

E-Learning Module and Market Trials - Kick-Off Meeting/Q&A for June Release

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Welcome and Introduction

- This session is being conducted to provide participants an opportunity to ask questions on the E-Learning Module as well as providing information on the Market Trials.
- Today's session will be recorded and available for viewing online following the session.
- This presentation and all other information can be found on the Transmission Rights Market Enhancement and Platform Refresh engagement page.

Participation

- For questions and comments click on the "raise hand" icon (hand symbol) at the top of the application window. This will indicate to the host you would like to speak.
- To unmute audio, click on the microphone icon at the top of the application window. Audio should be muted when not asking a question.

Agenda

1. Project Details
2. Project Schedule
3. E-Learning Module
4. Market Trials – Schedule, Access, Reporting Bugs, Progress Reporting



Project Details

Current TR Auction Application – Need for Project

- TR Market was implemented in 2002 and is currently operating largely based on its original design.
- Ontario Energy Board's Market Surveillance Panel provided recommendations and feedback regarding potential inefficiencies with TR market. The IESO conducted a [TR Market Review](#) (completed June 2021) in response.
- The TR auction platform is based on 15+ year old technology that is due for a refresh.
 - Risk of increased cost to support the current application as it is run on a different platform than other technology the IESO is currently utilizing.
 - The current application has limited functionality for improvements to security and design.

Project Scope/Purpose

1. Updated TR auction platform to align with current IESO software

- Required change given the aging system/technology it was built upon.
- Modern platform improves functionality for TR auction participants (i.e. User can represent multiple accounts, etc.).
- Eliminates additional costs by leveraging existing investments such as infrastructure, security, databases, etc.

2. Enhanced market by introducing multiple bid laminations

- A high-value opportunity that received unanimous stakeholder support during the TR Market Review that improves flexibility for traders and encourage more active and competitive bidding.
- Allows traders to express different price sensitivities when bidding.
- This improvement leveraged the TR auction platform refresh without impacting MRP implementation.

Upgraded TR Auction Platform

Home Transmission Rights Auction

Hello, TRA.
Select an Auction to begin.

Hide TRA Helpful Links
 IESO TRA Calendar
 IESO Market Rules & Manuals Library
 Public TRA Reports

Auction Name	Validity Period
Test Auction 5	April 1 - 30, 2023
Test Auction 6	June 1 - July 31, 2023
LT ab auction	-
ST_20230701	March 1 - April 30, 2023
Auction_20230327_2	March 1 - 2023
Test Auction 7	March 1 - 31, 2023
Test Auction 10	March 1 - 31, 2023

Home Transmission Rights Auction

Auction Test Auction 6

<< Return to Auction List

Test Auction 6

Auction Type Long Term (LT)
Validity Period June 1 - July 31, 2023

Organization Limit Information

Organization: TR PARTICIPANT CHARLIE

Bid Limit \$300,000
Total Bids \$4,130
Remaining Limit \$295,870

Round 1

Start 2023-06-06 13:20 EST
End 2023-06-13 14:53 EST

Round 2

Start 2023-06-20 01:00 EST
End 2023-06-25 10:00 EST

Round 2 (ACTIVE)

Path	Auction Quantity (MW)	Round Quantity (MW)*	Transmission Type	Bids Submitted?
ON-NY	97	42	EXPORT	●
ON-MAN	97	97	EXPORT	○
ON-MICH	97	75	EXPORT	○
QBEAU-ON	97	97	IMPORT	○
NY-ON	97	97	IMPORT	○

Home Transmission Rights Auction

Auction Test Auction 6

Test Auction 6

Auction Type Long Term (LT)
Validity Period June 1 - July 31, 2023

Organization Limit Information

Organization: TR PARTICIPANT CHARLIE

Bid Limit \$300,000
Total Bids \$4,130
Remaining Limit \$295,870

Round 1

Start 2023-06-06 13:20 EST
End 2023-06-13 14:53 EST
Round Fraction 0.25
Status CLOSED

Round 2

Start 2023-06-20 01:00 EST
End 2023-06-25 10:00 EST
Round Fraction 1
Status ACTIVE

Round 2 (ACTIVE)

Path	Auction Quantity (MW)	Round Quantity (MW)*	Transmission Type	Bids Submitted?
ON-NY	97	42	EXPORT	●
ON-MAN	97	97	EXPORT	○
ON-MICH	97	75	EXPORT	○
QBEAU-ON	97	97	IMPORT	○
NY-ON	97	97	IMPORT	○

TR PARTICIPANT CHARLIE bids for ON-MAN
Transmission Path from Ontario to Manitoba

Lamination	Price (\$)	Quantity (MW)	Lamination Value	Delete
1				✖

● Add Lamination

CANCEL SUBMIT BID

Consolidation of Accounts

- Currently some users have multiple accounts to facilitate their participation representing different organizations. Users will now be able to represent multiple organizations from a single account.
- For market trials and implementation the IESO has consolidated organizations for users that currently represent multiple organizations. All organizations have been consolidated to the user's primary account.
- Organizations will be visible within the auction and the user can toggle between them to submit, edit, delete, or view bids.

Updates to TR Reports

- In addition to the application being updated, some report updates were required to integrate multi-lamination functionality.
- Minor improvements/adjustments were made to simplify reports or provide information requested by stakeholders.

Summary of TR Report Changes

Pre-Auction TTC - Added Outage IDs Column; Replaced Time Structure with Validity Period.

Post-Auction MCP - Header fields removed/replaced (Time Structure, Earliest Date and Last Date); Removed section at bottom of report listing hours excluded from validity period.

TRA Bid History - Including multiple laminations; Merged cells as result of multiple laminations.

Participant Notification - Header fields removed/replaced (Time Structure, Earliest Date and Last Date); Removed section at bottom of report listing hours excluded from validity period.

Governing Documents Updates

- Market Rules, Manuals and other supporting documents were updated to facilitate this change. These will be finalized prior to launch and will replace information that is on our existing web pages.
- To participate in the Market Trials, participants should be aware of the new bidding and lamination requirements applicable. This information is referenced in the draft Market Rules, Manuals, Participant Guide, and TR workbook.
- Drafts of the manuals and participant guide are available for the purpose of the trials and these pending revisions will be finalized and enforceable for launch of the upgraded application. These can be accessed through [Pending Changes](#) webpage. Amended Market Rules are available on the [TR engagement page](#).



Project Schedule

Project Schedule – Key Dates

April 17: E-Learning is available

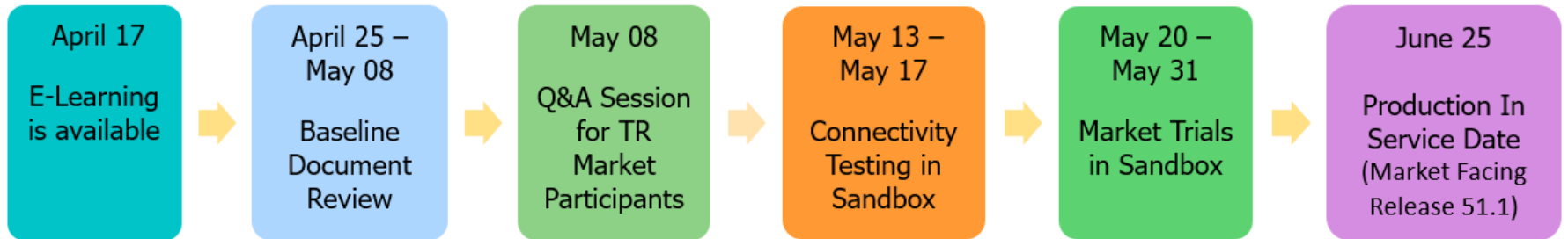
April 25 – May 8: Baseline Document Review

May 8: Q&A Session for TR Market Participants – Today's Session

May 13 – 17: Connectivity Testing in Sandbox

May 20 – 31: Market Trials in Sandbox

June 25: Production In Service Date (Market Facing Release 51.1)





E-Learning Module

E-Learning Module

- An E-Learning Module was developed to provide a walkthrough of the TRA Application, highlighting the basic functions of the application and facilitating participation in the TRA.
- It was made available on April 17th and can be helpful to facilitate your participation in the Market Trials: [Sign in to IESO E-Learning Module \(reach360.com\)](#).
- The IESO solicited questions participants may have on the functionality of the application that are not addressed in the module.



Stakeholder Questions on TRA Application

To be updated if questions provided



Market Trials

TRA Market Trial Test Plan

- Detailed Test Schedule
- Test case Scenarios
- Sandbox Access
- Issue/Bug Log Template
- Communication Plan/Progress Reporting

TRA Market Trial Readiness

Please ensure that you have:

- ✓ Registered in Sandbox environment
- ✓ Have activated gateway access, if new users
- ✓ Have taken the E-Learning module
- ✓ Completed connectivity testing in Sandbox
 - [IESO Sandbox TRA Application](#)
- ✓ **TRA Bidders/Users can only access the application using their primary account. If representing multiple organizations, each of these organizations are now available under their primary account. All other accounts are no longer required.**

Market Trial – High Level Schedule

Week	Activity
Week 1 – Preparing for Market Trial (May 13 – 17)	Unstructured Testing Structured Testing <ul style="list-style-type: none">• Connectivity Testing• ST Pre-Auction Report Testing
Week 2 – Market Trial (May 21 – 24)	Structured Testing <ul style="list-style-type: none">• Bid on ST Auction• Review ST Auction Results/Post-Auction Reports• LT Pre-Auction Report Testing
Week 3 - Market Trial (May 27 – 31)	Structured Testing <ul style="list-style-type: none">• Bid on LT Auction• Review LT Auction Results/Post-Auction Reports
Week 4 – Market Trial (if needed)	Structured Testing <ul style="list-style-type: none">• Re-testing if needed

Market Trial Testing -Week 1 Test Plan

Week 1	Timing	Performed By	Activities
Day 1	All Day	Market Participant	<ul style="list-style-type: none"> Review E-Learning Module (if haven't done so). Complete Connectivity Testing – For TRA application and reports site.
Day 1-Day 5	All Day	Market Participant	<ul style="list-style-type: none"> Perform unstructured testing in active auction (only an unstructured auction will be available as a week 1 auction). View posted ST auction (week 2 auction). Review pre-auction reports for posted ST auction (week 2 auction - TTC report, monthly financial report, pre-auction MCP report). Log defects or send questions at the end of the day to customer.relations@ieso.ca with subject "TRA Market Trials" (always use this email and subject line when sending in defects, questions, or status updates).
Day 5	Will be scheduled	Market Participant, IESO	<ul style="list-style-type: none"> IESO conducts assessment of defects. Q&A session with Market Participants. <ul style="list-style-type: none"> Meeting to be scheduled to discuss execution and defects. Prepare for next week's ST auction test.

Market Trial Testing – Week 2 Test Plan

Week 2	Timing	Performed By	Activities
Day 1	Statutory Holiday		
Day 2	All Day	Market Participant	<ul style="list-style-type: none"> • Participate in the short-term auction. • Log defects or send questions at the end of the day to customer.relations@ieso.ca with subject line "TRA Market Trials" (always use this email and subject line when sending in defects, questions, or status updates).
Day 3	AM/PM (until 5 PM EST)	Market Participant	<ul style="list-style-type: none"> • Continue to participate in the short-term auction. • Log defects or send questions at the end of the day to customer.relations@ieso.ca.
Day 4	All Day	Market Participant	<ul style="list-style-type: none"> • Participants can review Post Auction reports and Auction Results. • Review Participant Notification Report; Bid History Report and Post-Auction MCP Report. • View posted auction (week 3 LT auction). • Review pre-auction reports for posted auction (i.e. week 3 LT auction - TTC report, pre-auction MCP report). • Log defects or send questions at the end of the day to customer.relations@ieso.ca.
Day 5	Will be scheduled	Market Participant, IESO	<ul style="list-style-type: none"> • IESO conducts assessment of Defects (as necessary) Q&A. • Q&A session with Market Participants. <ul style="list-style-type: none"> ○ Meeting to be scheduled to discuss execution and defects. ○ Prepare for next week's LT auction test.

Market Trial Testing – Week 3 Test Plan

Week 3	Timing	Performed By	Activities
Day 1	All Day until 5PM	Market Participant	<ul style="list-style-type: none"> • Participate in LT auction - Round 1. • Auction closes at 5 PM and IESO send out results and reports. • Log defects or send questions at the end of the day to customer.relations@ieso.ca with subject line "TRA Market Trials" (always use this email and subject line when sending in defects, questions, or status updates).
Day 2	All Day	Market Participant	<ul style="list-style-type: none"> • Participants can review post auction reports/results. • Review Participant Notification Report, Bid History Report and Post-Auction MCP Report. • Log defects or send questions at the end of the day to customer.relations@ieso.ca.
Day 3	All Day until 5PM	Market Participant	<ul style="list-style-type: none"> • Participate in LT auction - Round 2. • Auction closes and IESO sends out results and reports. • Log defects or send questions at the end of the day to customer.relations@ieso.ca.
Day 4	All Day	Market Participant	<ul style="list-style-type: none"> • Participants can review post auction reports/results. • Review Participant Notification Report, Bid History Report and Post-Auction MCP. • Log defects or send questions at the end of the day to customer.relations@ieso.ca.

Day 5 is included on next slide

Market Trial Testing – Week 3 cont. and 4 Test Plan

Week 3/4	Start	Performed By	Activities
Week 3 - Day 5	Will be scheduled	Market Participant, IESO	<ul style="list-style-type: none">• IESO conducts assessment of Defects (as necessary) Q&A.• Q&A session with Market Participants.<ul style="list-style-type: none">○ Meeting to be scheduled to discuss execution and defects.○ Discuss re-testing.• Wrap up Market Trial.
Week 4 - Day 1	All Day	Market Participant	<ul style="list-style-type: none">• Re-testing defects if needed.• Log defects or send questions at the end of the day to customer.relations@ieso.ca with subject line "TRA Market Trials" (always use this email and subject line when sending in defects, questions, or status updates).

Overview of Test Case Scenarios

1. Validate access to TRA application and to the reports site (public and private). Conducted during the week leading up to market trials.
2. Validate that users or TRA bidders can switch between their respective organisations, if applicable. Conducted during the week leading to up to market trials.
3. Validate pre-auction reports that are relevant to market participant.
4. Validate that help links work as expected.
5. Validate auction displays correct status at the right time (Active, between rounds, Posted, Closed).

Overview of Test Case Scenarios cont.

6. Validate user can submit, edit and delete bid laminations for Short Term (ST) and Long Term (LT) auctions.
 - Bidding limits are adjusted accordingly based on the bids submitted.
 - Validate other functions associated with bid submission are updated.
 - Validate bid validations are working as expected.
 - Validate user can bid on different paths.
 - Validate user can submit multiple laminations on any path available.
 - Validate user is able to switch between organisations and submit /edit/delete bids
7. Validate if multiple users are present for the same organisation, they can submit /edit/delete the bids interchangeably.
8. Validate if post-auction reports (public and private) are generated as expected and data is correctly. Information displayed is based on the final bids submitted.

Communications Plan/Progress Reporting

- At the end of each week a status update email on testing progress is required by those participating in the Market Trials. Email should be sent to customer.relations@ieso.ca with subject line "TRA Market Trials" and should include "Test Scenario Tracker" sheet from Defect Tracker template.
- At the end of each day of testing an email with the issues/bugs encountered must be sent to customer.relations@ieso.ca with subject line "TRA Market Trials" - send "Defect Template" and "Defect Screenshots" sheets from Defect Tracker template.
- Market Trial participants must attend IESO scheduled meetings to resolve defects/issues. If required, meetings will be scheduled for the end of each week.

Market Trial Test Plan – Issue/Bug Log Template

The "Defect Template" will be used to send status updates and log issues/bugs that must be emailed to customer.relations@ieso.ca with the subject line "TRA Market Trials" at the end of each day of testing. This will be emailed out to Market Trial Participants and is also available online on the [TR Project Page](#).

Questions, please!



Thank You

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