MRP Implementation Working Group Market Participant Testing

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Purpose

- Outline the proposed approach for Market Participant (MP) acceptance testing

- Solicit input to inform the draft test plan

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Testing Objectives

- Identify and resolve defects prior to MRP Go-Live, especially those related to compatibility with MP systems

- Provide an opportunity for MPs to gain hands-on experience using new and modified tools

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Scope of Testing

Changes to the following tools/interfaces:

- Online IESO

- Energy Market Interface (EMI) / Market Information Management (MIM) API

- Dispatch Service User Interface (UI) / APIs

- Reports Site / API

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Scope of Testing – Online IESO

Updates to existing Online IESO applications:

- Registration System – virtual trader, market control entity

- Manage Facilities and Equipment – price responsive load election, new resource parameters (hydro cascade, forebay, etc.), reference level/quantity

- Prudential System – virtual trader prudential support obligations, trading limit

- Online Settlement Forms – new charge types

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Scope of Testing – Online IESO (Cont'd)

New Online IESO application:

- Application to support MPM framework

  - Alternate fuel cost request and evidence submission

  - Supplemental information submission for ex-post MPM assessment

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Scope of Testing – EMI/MIM API

Changes to dispatch data:

- Virtual transaction offers and bids in the Day-Ahead Market (DAM)

- Price Responsive Load (PRL) bids in the DAM

- Daily Dispatch Data

  - New for NQS: thermal states, lead time for 3 thermal states, minimum generation block run time for 3 thermal states

  - New for Hydroelectric: minimum daily energy limit, maximum daily energy limit, maximum number of starts per day

Scope of Testing – EMI/MIM API (Cont'd)

Changes to dispatch data (Cont'd):

- Hourly Dispatch data (i.e., hourly bids and offers)
  - New for NQS: start-up costs & speed-no-load for 3 thermal states
  - New for Hydroelectric: minimum hourly output, hourly must-run
  - New for Intertie Traders: capacity export indicator
  - New for Variable Generators: own forecast quantity (for DAM)
- Day-ahead Physical Bilateral Contracts

Scope of Testing – Dispatch Service UI/API

New commitment notifications for NQS generators:

- Binding Start-Up Notification

- Commitment Extension Notification

- De-Commitment Notification

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Scope of Testing – Reports Site / API

- No change to how reports are accessed or file formats

- New and updated reports

- New charge types for Settlement Statements

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Technical Specifications

Interface	Specification	Timeline
MIM API	XSD file WSDL file Sample request and response files	February 2023
	MIM Web Services Toolkit	Q4 2023
Dispatch Service APIs	Dispatch Notification Service Web Service Design Specifications (SPEC-155) Dispatch Service Web Service Design Specifications (SPEC-154)	March 2023
Reports API	Schema and sample files	Q3 2023 to Q2 2024
Settlement Statements	Format specifications and data files	Q2 2024

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Test Phases

Phase	Description	Example
Connectivity Testing	Confirm all existing test accounts and access rights are correct and up-to-date; confirm all IESO-MP communications channels are functioning	Authorized representative can log in to EMI
Market Trials	Confirm individual tools and interfaces are functioning as intended	Virtual traders can submit virtual bids and offers through EMI
End-to-End Testing	Confirm integration and data flow between tools	MP can be authorized as a virtual trader through Online IESO, then submit virtual bids and offers through EMI
Exploratory Testing	Opportunity for MPs to run their own test scenarios	

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Testing Needs Assessment

MP Segment	Online IESO	EMI/MIM API	Dispatch Service UI/API	Reports Site / API
Generators	x	x	x	x
Dispatchable Loads	x	x	x	x
Non-Dispatchable Loads	x			x
LDCs	x			x
Demand Response	x	x	x	x
Energy Traders	x	x		x
Virtual Traders	x	x		x

Test Scenarios / Test Cases

- The IESO will draft test scenarios and test cases for each phase of testing

- MPs will have an opportunity to create and execute their own test cases during Exploratory Testing
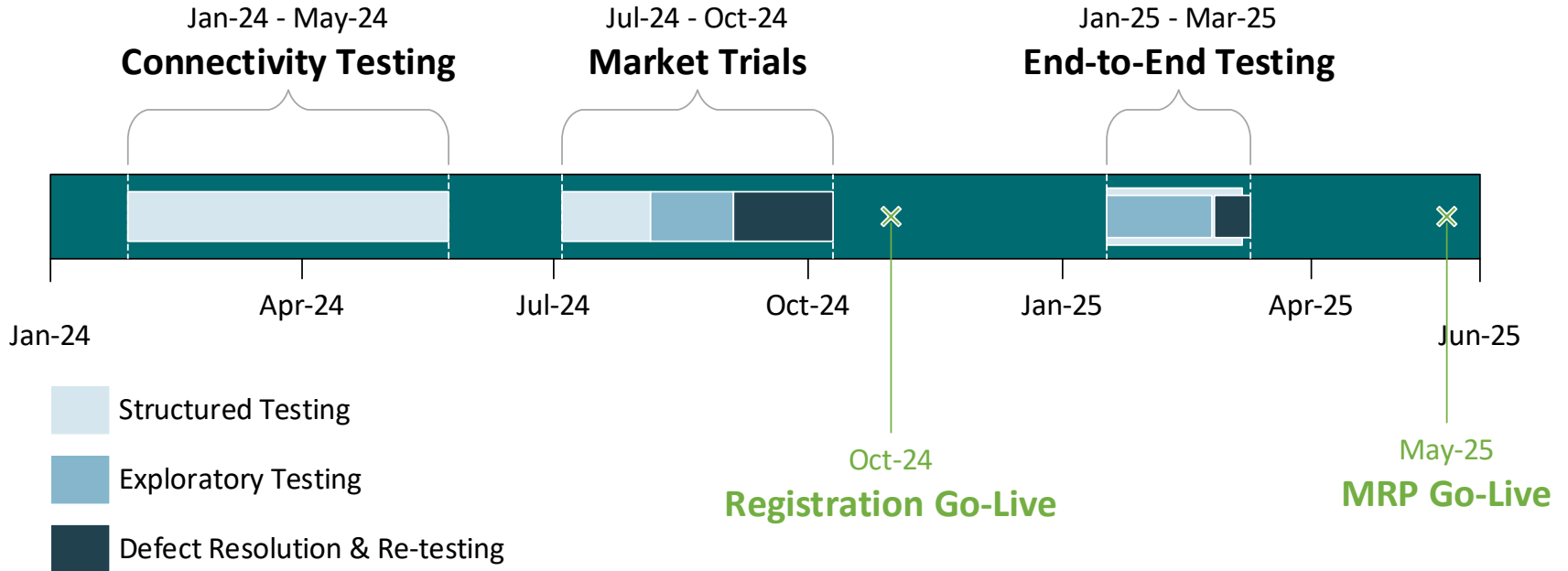
Test Case Management & Defect Reporting

- Test cases will be loaded into qTest for execution and defect reporting

  - Replaces manual process using spreadsheets

- qTest training will be provided prior to testing

- All testers will require a qTest user account – MPs need to sign license agreement

- Access through IESO Gateway (OKTA)

Support & Communication

- Walkthrough prior to each test phase to highlight:
  - Test scenarios / test cases
  - Pre-requisite training
  - Timelines
  - Any known defects and workarounds
- Account management model, with dedicated Business Advisors to provide support during testing
- Reporting on defect resolution

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Timeline

Jan-24 - May-24
Connectivity Testing

Jul-24 - Oct-24
Market Trials

Jan-25 - Mar-25
End-to-End Testing

Jan-24 — Apr-24 — Jul-24 — Oct-24 — Jan-25 — Apr-25 — Jun-25

Structured Testing

Exploratory Testing

Defect Resolution & Re-testing

Oct-24
Registration Go-Live

May-25
MRP Go-Live

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Thank You

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