Market Renewal Program Quarterly Project Status Report

Quarterly Report on the Market Renewal Program Status

As of September 30, 2023 (Q3 2023)

This report provides a quarterly update on the Market Renewal Program (MRP) schedule and cost, covering:

1. Schedule Performance Index[i] and Cost Performance Index[ii] relative to the in-effect baseline schedule and budget.

2. Schedule against baseline 4[iii] and the in-effect baseline schedule[iv].

3. Year-to-date actual spend vs annual budget, and total actual spend vs total budget, using the cost categories from Table 2 of the MRP Cost Report for baseline 4 and the in-effect baseline budget.

4. Any changes to cost forecast, schedule forecast, or changes to project scope.

5. An up-to-date public version of the MRP Strategic Risk Review.

6. A report on the IESO's MRP milestone progress at the end of each quarter.

---

[i]The Schedule Performance Index (SPI) is a measure of the conformance of actual (earned) progress to the planned progress and is calculated as: SPI = earned value / planned value.

[ii]The Cost Performance Index (CPI) calculates the cost efficiency of the project through the following formula: CPI = earned value / actual cost.

[iii]Previous baseline (BL4) is the MRP project schedule which estimated a go-live date of November 2023. As 2023 was the last year of the program the BL4 annual budget column is no longer being reported.

[iv]The in-effect baseline schedule, also referred to as current baseline 5 (BL5), estimates a May 2025 go-live date.

#1, #2: As of September 30, 2023: project performance

	Schedule Performance Index (Current BL5)	Cost Performance Index (Current BL5)	Actual Progress (Calculated as earned value/total value)	Planned Progress (Current BL5) (Calculated as planned value/total value)	Planned Progress (Previous BL4) (Calculated as planned value/total value)
Q3 2023	1.00	1.17	75%	75%	98%

#3: As of September 30, 2023: project spend

Q3 2023 - for Current BL5 (In $ Millions)	Year-To-Date Actual[v] Spend	Annual Budget (Current BL5)	Total Actual[vi] Spend	Total Budget (Current BL5)	Total Budget (Previous BL4)
Operating: Compensation & Benefits	2.9	3.8	19.8	25.7	19.6
Operating: Professional & Consulting	0.5	1.4	7.2	10.3	8.6
Operating: Operating & Administration	0.0	0.1	1.1	1.4	1.2
Total Operating Expenses	**3.4**	**5.3**	**28.1**	**37.4**	**29.4**

---

[v] Year-to-date actual spend values are unlikely to change, but may be subject to year-end auditing and financial procedures.

[vi] Total actual spend values are unlikely to change, but may be subject to year-end auditing and financial procedures.

Q3 2023 - for Current BL5 (In $ Millions)	Year-To-Date Actual[v] Spend	Annual Budget (Current BL5)	Total Actual[vi] Spend	Total Budget (Current BL5)	Total Budget (Previous BL4)
Capital: Compensation & Benefits	8.8	15.8	49.7	79.2	57.1
Capital: Professional & Consulting	1.4	3.7	9.6	15.6	18.7
Capital: Operating & Administration	15.0	22.7	58.6	78.0	55.5
Capital: Interest	2.2	1.7	3.9	8.1	7.0
Capital: Contingency	-	-	-	15.0	10.0
Total Capital Expenses	**27.4**	**43.9**	**121.8**	**195.9**	**148.3**
Total MRP Expenses	**30.8**	**49.2**	**149.9**	**233.3**	**177.7**

#4: Update – September 2023

No changes to cost forecast, schedule forecast, or changes to project scope this quarter.

#5: MRP Strategic Risk Update

Expected Timing of Risk Score Reductions

Risk#	Risk Event Description	2023				2024				2025	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Market Participants are unprepared for technology and market operation at go-live date.	High	High	High	High	Medium	Medium	Medium	Low	Low	Low
2	A challenge to a MRP market rule amendment that has a material impact on project benefits or schedule.	High	High	High	High	High	High	High	High	High	Medium
3	Market systems and related processes produce materially unexpected or unacceptable results pre go-live.	High	High	High	High	High	Medium	Medium	Medium	Low	Low
4	IESO is unable to effectively integrate technical solutions given complexity and volume.	High	High	High	High	High	Medium	Medium	Medium	Low	Low

Risk #	Timing of key Mitigation and Milestones to Reduce Risk Score
1	Risk level will be re-assessed following: Q3/Q4 2023: Response from first of multiple formal assessments to gauge readiness of high priority participants Q4 2024: Completion of Market Participant Testing for registration, operational tools and settlements
2	Risk level will be re-assessed following: Q2/Q3 2024: Availability of a more complete view of outstanding market participant issues as provisional board approval of the Market & System Operations batch of MRP market rules approaches Q4 2024/Q1 2025: Ontario Energy Board (OEB) Market Rule review period if challenge is filed
3	Risk level will be re-assessed following completion of: Q3 2023: Dispatch Scheduling Optimization (DSO) Phase 2 System Acceptance Testing Q2 2024: Demand Forecast Systems (DFS) Soft Launch Q3 2024: Last phase of User Acceptance Testing (UAT) Q4 2024: Market Registration Go-live
4	Risk level will be re-assessed following completion of: Q1 2024: System Integration Testing (SIT) of operational tools Q3 2024: All solutions System Integration Testing and completion of all User Acceptance Testing (UAT) Q4 2024: Market Participant Testing for registration, operational tools and settlements

Residual Risk Score Scale:

Insignificant	Low	Medium	High	Critical

Expected Timing of Risk Score Reductions Continued

Risk#	Risk Event Description	2023				2024				2025	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
5	IESO is unable to implement MRP Energy on time and on budget due to unexpected deliverable delays, uncertainties in forecasting task details and time estimates.	🟥	🟧	🟧	🟧	🟨	🟨	🟨	🟨	🟨	🟩
6	Internal IESO is unprepared to use technology solutions and operate the market.	🟧	🟧	🟧	🟨	🟨	🟨	🟨	🟨	🟩	🟩

Risk #	Timing of key Mitigation and Milestones to Reduce Risk Score
5	Risk level will be re-assessed following: Q3 2023: Established track record of delivering on key milestones Q4 2023: Completion of the last critical MRP solution's functional testing (i.e. Market Information Management)
6	Risk level will be re-assessed following completion of: Q4 2023: Line of Business (LOB) training plan Q4 2023: Delivery of foundational MRP concepts Q3 2024: User Acceptance Testing (UAT) Q1 2025: Delivery of process and tool training

Residual Risk Score Scale:

Insignificant	Low	Medium	High	Critical

#6: Quarterly MRP Milestones Progress

Key Milestones Completed as of Q3 2023	Status
Factory Acceptance Testing: Dispatch Scheduling & Optimization	Completed 7-Dec-22
Site Acceptance Testing: Economic Operating Site	Completed 5-Jan-23
System Integration Testing: Demand Forecast & Weather Provider	Completed 15-Mar-23
Business Requirement Documents - Market Power Mitigation	Completed 22-Mar-23
Go-live Activities - Change Impact Assessments (Internal & External)	Completed 31-Mar-23
User Acceptance Testing: Market Registration Process (Online IESO)	Completed 27-Apr-23
Solution Development - Market Information Management Infrastructure - Release 1	Completed 4-May-23
Solution Development - Dispatch Data Management System	Completed 26-May-23
Site Acceptance Testing: Dispatch Scheduling & Optimization - Release 1	Completed 29-May-23
Market Rules & Market Manuals - Interim Alignment	Completed 28-Jun-23
Solution Development - Energy Market Administration Tool	Completed 30-Jun-23
Solution Development - Energy Market Interface	Completed 30-Jun-23
Solution Development - Market Power Information System - Phase 1 - Vendor	Completed 30-Jun-23
Factory Acceptance Testing: Market Information Management Infrastructure - Release 1	Completed 30-Jun-23
Site Acceptance Testing: Dispatch Data Management System	Completed 26-Jul-23
Market Rules & Market Manuals - Settlements, Metering & Billing	Completed 17-Aug-23
Internal Manuals - Series 4: Finance/Prudentials	Completed 13-Sep-23

Key Milestones Forecast	Status	Expected Completion Date
Site Acceptance Testing: Market Power Information System	In progress	10-Oct-23
Site Acceptance Testing: Market Information Management + Energy Market Administrative Tool - Release 1	In progress	20-Oct-23

Key Milestones Forecast	Status	Expected Completion Date
Site Acceptance Testing: Market Information Management + Energy Market Interface - Release 1	In progress	20-Oct-23
Solution Development - Market Information Management Infrastructure - Release 2	In progress	24-Oct-23
System Integration Testing: Operational Tools - Part 1	In progress	30-Oct-23
Internal Manuals - Series 1: Registration	In progress	6-Nov-23
Business Requirement Documents - External Reports	In progress	30-Nov-23
Factory Acceptance Testing: Market Information Management - Release 2	In progress	21-Dec-23
Market Participant Testing - Market Trials Communications & Support Plan	In progress	29-Dec-23
Internal Manuals - Series 2: Operations	In progress	Jan 2024
Solution Development - Market Power Information System - Phase 2 - IESO	In progress	Feb 2024
Market Participant Testing - Market Participant Connectivity Testing & Data Preparation	Starts Jan 2024	Feb 2024
Solution Development - External Reports	In progress	Feb 2024
User Acceptance Testing: Demand Forecast	Starts Dec 2023	Mar 2024
Site Acceptance Testing: Market Information Management + Energy Market Administrative Tool - Release 2	Starts Jan 2024	Mar 2024
Site Acceptance Testing: Market Information Management + Energy Market Interface - Release 2	Starts Jan 2024	Mar 2024
System Integration Testing: Operational Tools - Part 2	Starts Jan 2024	Mar 2024
Internal Manuals - Series 5: Market Power Mitigation	In progress	Mar 2024
Solution Development - Centralized Alarm Management System	In progress	Mar 2024
Market Participant Testing - Market Participant Test Connectivity	Starts Jan 2024	May 2024
Market Rules & Market Manuals - Market & Systems Operations	In progress	Jun 2024
System Integration Testing: All Solutions	Starts May 2024	Jul 2024
Internal Manuals - Series 3: Settlements	Starts April 2024	Jul 2024

Key Milestones Forecast	Status	Expected Completion Date
Training - Internal Training Delivery: Registration Go-live	Starts May 2024	Aug 2024
User Acceptance Testing: Settlements Systems, Data Aggregators, & Monitors	Starts July 2024	Sep 2024
User Acceptance Testing: Operational Tools	Starts May 2024	Sep 2024
Go-live Activities - Go-live Support Plan (Internal & External)	Starts April 2024	Sep 2024
Market Participant Testing - Registration	Starts July 2024	Oct 2024
Market Participant Testing - Operational Tools	Starts July 2024	Oct 2024
Market Participant Testing - Settlements	Starts July 2024	Oct 2024
Market Rules & Market Manuals - Final Alignment [All Batch Final Approval]	In progress	Oct 2024
Registration Go-live	In progress	Oct 2024
Training - Market Participant Training & Education for Registration Go-live	Starts Oct 2023	Oct 2024
Market Participant Testing - End-to-End Data Preparation	Starts Jan 2025	Jan 2025
Go-live Activities - Go-live Communications Plan (Internal & External)	Starts Oct 2024	Mar 2025
Market Participant Testing - End-to-End	Starts Jan 2025	Mar 2025
Training - Internal Training Delivery for Market Go-live	In progress	Apr 2025
Go-live Acceptance Criteria	In progress	May 2025
Training - Market Participant Training & Education for Market Go-live	Starts Oct 2023	May 2025
MRP Go-live (In Production)	-	May 2025