

JULY 31, 2024

Renewed Market Launch Plan Update

Cutover and Rollback Sequence Overview

Przemek Tomczak

Transitioning to the Renewed Market

- Transitioning from the current market to the renewed market is a significant undertaking requiring a number of coordinated steps to ensure:
 - The IESO can continue to reliably operate the grid and settle the market
 - Market Participants, at all times, have clarity on their obligations and can effectively participate in the market
- This transition will require staging-in relevant processes, tools, and market rules across a period of multiple months

Feedback Received on the Cutover Plan

Stakeholders provided the following feedback regarding the draft cutover plan that was presented at the April 25, 2024 webinar:

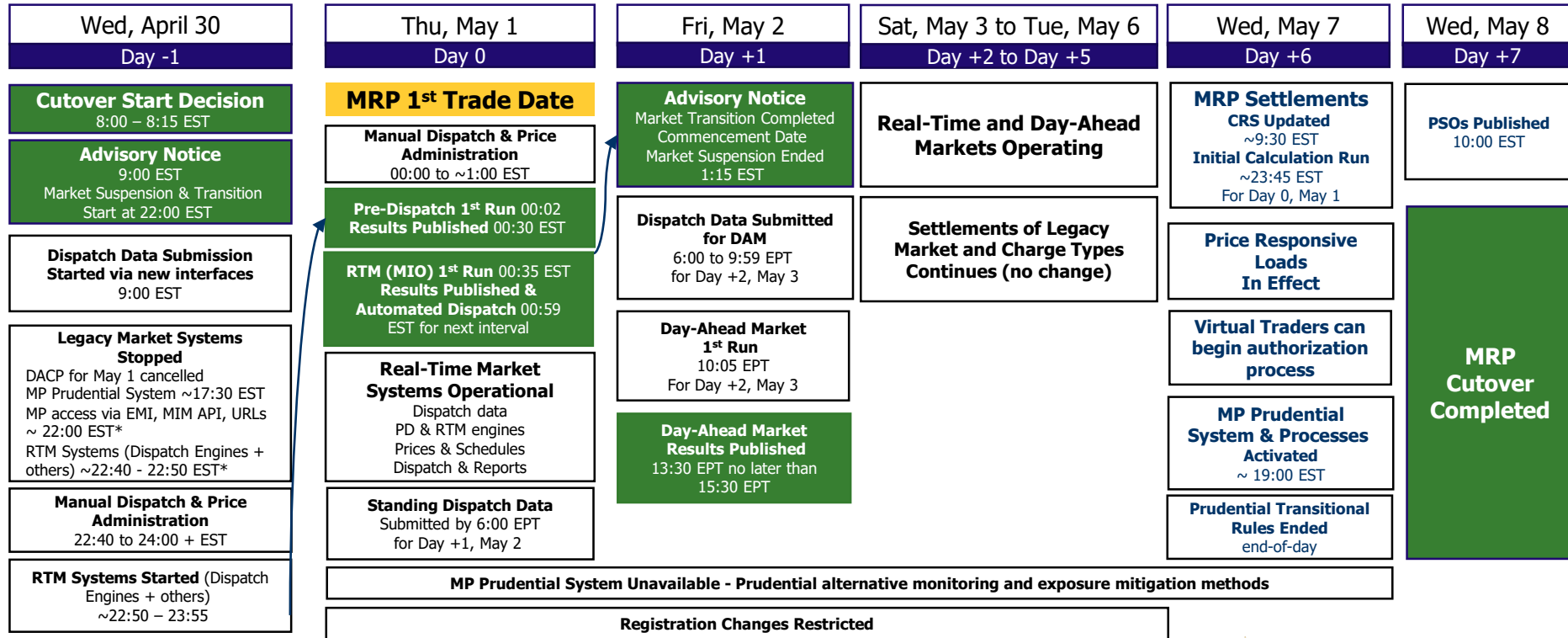
- MPs have requested guidance from the IESO on establishing the Availability Declaration Envelope and Standing Data for the first day of the renewed market
- MPs may need additional time to submit dispatch data and resolve validation issues prior to the real-time market mandatory window (22:00 to 23:50 EST)

Based on this feedback and further internal engagement, the IESO has modified the cutover plan

Launch Plan Overview

Wed, April 30 Day -1	Thu, May 1 Day 0	Fri, May 2 Day +1	Sat, May 3 to Tue, May 6 Day +2 to Day +5	Wed, May 7 Day +6	Wed, May 8 Day +7
<p>Cutover start decision made - MP's notified</p> <p>MPs enter dispatch data</p> <p>Legacy market stopped</p> <p>Manual dispatch and price administration during cutover</p> <p>MRP real-time market systems activated</p>	<p>MRP 1st Trade Date</p> <p>MRP real-time market in operation</p>	<p>Advisory Notice sent confirming market transition completed</p> <p>MPs submit DAM dispatch data</p>	<p>Real-Time and Day-Ahead Markets operating</p>	<p>MRP settlements initial calculations for Day 0, May 1</p>	<p>PSOs Published</p> <p>MRP Cutover Completed</p>
				<p>Price Responsive Loads in effect</p>	
				<p>Virtual Traders can begin authorization process</p>	
				<p>Prudential system & processes launch</p>	
<p>Legacy market continues to be settled</p>					
<p>Registration Changes Restricted</p>					
<p>MP Prudential System Unavailable Prudential alternative monitoring and exposure mitigation methods</p>					

Launch Plan (Tentative – Subject to Change)



Recap of Changes from April 25, 2024

- MPs will now be able to submit dispatch data for May 1 earlier on April 30
- MPs to submit dispatch data for May 1 for both legacy and renewed markets concurrently
- Real-time market sequences start early on May 1, rather than late on April 30
- Clarified how Availability Declaration Envelope (ADE) and Standing Dispatch Data will be established for May 1 and May 2
- Provided details of proposed cutover and rollback sequences

Dispatch Data Submissions

- MPs must submit bids or offers for their dispatchable resources for May 1 for the legacy and renewed market
 - New systems need this data
 - Legacy systems need this data to be available so that they can be reactivated quickly in the unlikely event of a rollback
- The IESO will not copy or migrate any dispatch data from the legacy Market Information Management (MIM) system to the new MIM
- New timelines for Segregated Mode of Operation (SMO) requests will apply for requests related to May 1 and 2. SMO requests requiring an outage to a critical transmission element must be submitted by 8:00 EPT on the day prior to the dispatch day, while requests not requiring an outage to a critical transmission element may be submitted by 10:00 EPT.

Dispatch Data Submissions

- The IESO will enable MPs to submit dispatch data for the renewed market starting from 9:00 EST on April 30
- IESO will restrict access for MPs to submit, change or access dispatch data submissions to/from the legacy market (using legacy MIM) at 22:00 EST on April 30
 - This data will be used by the legacy dispatch engines until 22:40 EST on April 30
- IESO will provide enhanced support to help MPs diagnose and resolve data submission and validation issues from the start of the renewed market submission window at 9:00 EST until 22:00 EST

Availability Declaration Envelope (ADE)

- The ADE is used to determine the eligibility of dispatchable resources for participation in the real-time energy market. It obligates these resources to submit offers and/or bids in a timeframe that provides advance visibility of available capacity to the IESO, allowing for planning related to resource adequacy, promoting reliability and stability in the market operations
- To support cutover, the ADE will be established as the most recent maximum quantity of energy in the bid or offer submitted before 23:50 EST on April 30 for May 1
- Until the IESO publishes results of the Day-Ahead Market, the ADE for each day after May 1st will temporarily be established based on dispatch data submissions prior to 10:00 EPT of the previous day

Standing Dispatch Data

- The renewed market will start with no standing dispatch data; any standing dispatch data submitted into the legacy market systems will not apply
- Standing Dispatch Data submitted by 06:00 EPT May 1 will be effective for May 2

Planned Outage Schedule

Application or Service	Outage	Available	Activity
DACP	April 30, 13:10	N/A	DACP for May 1 cancelled
MP Prudential System	April 30, 17:30	May 7, 19:00	
Market Interfaces (legacy) URL, MIM API, EMI	April 30, 22:00	N/A	MPs blocked from submitting dispatch data to legacy market
Market Interfaces (new) URL, MIM API, EMI		April 30, 9:00	MPs start submitting dispatch data for renewed market
Dispatch Engines	April 30, 22:40	April 30, 23:55 – May 1, 0:55	Legacy dispatch engines stopped, and new engines activated
Dispatch Services	April 30, 22:40	May 1, 0:54	Dispatch services stopped and activated together with the dispatch engines

Cutover Sequence – April 30

Date	Time (EST)	Activity
April 30	08:15	Cutover Start Decision
April 30	09:00	Advisory Notice by 9:00 EST of Market Suspension & Transition Start at 22:00 EST
April 30	09:00	MPs start submitting dispatch data for the renewed market via new EMI, MIM API, and URLs MPs continue to submit dispatch data to legacy market tools until 22:00 EST
April 30	10:00	DACP for May 1 cancelled. DACP results will not be published or will not be fed into the dispatch engines
April 30	17:30	Legacy MP Prudential System stopped. Alternative monitoring procedures in effect.
April 30	22:00	MP access to legacy EMI, MIM API, URLs stopped
April 30	22:40 - 22:50	Manual Dispatch & Price Administration started. Legacy Dispatch Engines stopped.
April 30	22:50 - 23:30	New Dispatch Engines activated and available for the first Pre-dispatch engine run.
April 30	23:49 - 23:50	Availability Declaration Envelope established for May 1 based on dispatch data submitted before 23:50 EST
April 30	23:55	New Dispatch Engine sequence started

Cutover Sequence – May 1

Date	Time (EST)	Activity
May 1	00:02 - 00:54	Dispatch Engine sequences started and results validated. Once results are validated by the IESO they will be published to MPs The time to validate results may be extended by the IESO
May 1	00:55	Automated dispatch started
May 1	01:00	Manual dispatch and price administration ended
May 1	01:00 - 2:00	Filter activated to only send changes to dispatch instructions to MPs
May 1	05:00	Standing Dispatch Data submitted by 06:00 EPT May 1 will be effective for May 2

Cutover Sequence – May 2

Date	Time (EST)	Activity
May 2	01:15	Decision and Market Advisory Notice issued: Market Transition Completed, Commencement Date, Market Suspension Ended. MPs advised to submit DAM dispatch data
May 2	08:00	Reminder, prior to DAM run the following changes to outage submission and assessment deadlines will apply: <ul style="list-style-type: none">• Change outage submission deadline changing from 16:00 EST two business days prior to the outage start date to 10:00 EST two business days prior to the outage start date.• Change outage assessment deadline changing from 14:00 EST on the previous business day to 08:00 EST on the previous business day.
May 2	05:00 - 09:00	MPs submit DAM dispatch data for Day +2, May 3
May 2	09:00 - 10:30	Day-Ahead Market engine run and results validated
May 2	11:30 - 14:30	Day-Ahead Market results published

Cutover Sequence – May 7 and May 8

Date	Time (EST)	Activity
May 7	09:00 - 09:30	Commercial Reconciliation System updated with MRP changes. Settlement statements, data files, and invoices will continue to be issued as per existing schedule.
May 7	18:00 -19:00	New MP Prudential System activated and available for MPs via Online IESO Transitional alternative monitoring and exposure mitigation methods ended
May 8	10:00	Updated Prudential Support Obligations published as per regular schedule

Rollback

- The decision whether to "rollback" to the legacy market (i.e., market rules, market interface tools, etc.) will be made no later than May 2, 2025
- A rollback will be determined by the IESO considering a variety of factors including:
 - the software, hardware, communication systems or business processes that support normal market operations have experienced a critical failure;
 - this failure prevents the IESO from dispatching the IESO-controlled grid or administering the IESO-administered markets in a manner consistent with normal market operations or reliability; and
 - the IESO is unable to resolve the failure within a reasonable time

Rollback - Actions

- MPs will be notified promptly via Advisory Notice if a rollback is required
- Rollback involves reverting to legacy systems, market rules and processes
- Market Participants, depending on participation type, would be required to:
 - i. Revert systems and data to connect and operate with IESO legacy systems and interfaces; e.g.,
 - Connect MP systems to legacy interfaces (EMI, MIM API, URLs)
 - Submit dispatch data (bids, offers, self-schedules) to legacy MIM
 - Receive and process reports and instructions, including pre-dispatch reports, DACP, and dispatch services

Rollback - Actions *(cont'd)*

- ii. Disregard reports produced by the renewed market
 - iii. Receive and follow manual dispatch instructions until notified that normal dispatch has resumed
 - iv. Reconcile market settlement statements and data files according to legacy market rules
- In the event of rollback, prices will be administered as per market rules to determine applicable Hourly Ontario Energy Price and other needed prices; seamless and continuous market settlement will be ensured

Rollback Sequence (Tentative Subject To Change)

Time (relative to rollback decision "T")	Activity
T (by May 2, 1:15 EST)	Decision made to rollback according to the Market Rules definition of "Transition Error"
T+ 00:01 - 0:05	Rollback decision communicated to the Market Access to new URLs, EMI, MIM API, and Dispatch Services disabled Access to legacy URLs, EMI, MIM API, and Dispatch Services enabled
T+ 00:06 - 00:10	MPs advised to begin submitting dispatch data to legacy MIM and to prepare to receive dispatch instructions from legacy systems (in 1 to 2 hours)
T+ 00:01 - 0:13	Manual dispatch of resources started (if not already). New dispatch engines stopped Legacy dispatch data filter turned off (to be turned on after automated dispatch is activated)
T+ 00:15 - 1:02	Legacy dispatch engines reactivated, and pre-dispatch sequence started
T+ 01:15 - 02:24	Dispatch engine results validated and published. Automated dispatching of resources started, legacy dispatch data filter enabled
T+ 02:30 - 03:00	Rollback completed and communicated
Prior to 10:00 EST	DACP started prior to the next dispatch day