MRP Implementation: Summary of Market and System Operations

In order to facilitate the implementation of the Market Renewal Program (MRP), changes are required to both *market rules* and *market manuals*. Due to the volume and complexity of changes anticipated in MRP, the *IESO* is releasing changes in 'batches'. This document describes the changes in the Market and System Operations batch.

Market and System Operations Changes

Changes to Market Rules

Chapter 5 – Power System Reliability

Amendments to Chapter 5 of the *market rules* are relatively minor in nature, and include edits to include new MRP defined terms (e.g. *resource*), changes related to *operating reserve*, and consequential changes to timelines related to *outages* in order to align with the timing of the *day-ahead market*.

Chapter 7 – System Operations and Physical Markets

Amendments to the body of Chapter 7 of the *market rules* are extensive, and include comprehensive rewrites of section 3 – Data Submissions for the Day-Ahead Market and the Real-Time Markets. New sections 4 – The Day-Ahead Market, 5- The Pre-Dispatch Process, and 6 – The Real-Time Market specify the scheduling processes, administration and publication requirements for the three respective market timeframes. Other notable new sections include section 10 – Instructions for Generator Offer Guarantee Eligible Resources.

Chapter 7 - Appendices

Amendments to the Chapter 7 Appendices include:

- 1. Appendix 7.1 Energy Offer, Schedule or Forecast Information additional submission requirements where applicable, minor edits for clarity, and addition of *resource* specific submission requirements;
- 2. Appendix 7.2 Energy Bid Information additional submission requirements where applicable, minor edits for clarity, and addition of *resource* specific submission requirements;
- 3. Appendix 7.3 Operating Reserve Offer Information additional submission requirements where applicable and minor edits for clarity;



- 4. Appendix 7.4 Transmission Information Required for Scheduling and Dispatching minor edit to include reference to the *DAM calculation engine*, *pre-dispatch calculation engine* and *real-time calculation engine*;
- 5. Appendix 7.7 Scheduling and Scheduling Approval edits to incorporate the defined term "resource" and modifications related to segregated mode of operations;
- 6. Appendix 7.8 Economic Operating Points (new) appendix to define the variables and calculations used for economic operating point.

Chapter 11 – Definitions

A series of new definitions were added to Chapter 11 of the *market rules* to facilitate the new procedures related to Market and System Operations. Some existing definitions were modified to align with market design under MRP. Some existing definitions were deleted as they were associated with procedures that are being superseded.

Summary of Market Rule Changes: July 2023

Chapter	Section	Торіс	Type of Change	Description
Chapter 5	Throughout	General Changes Throughout Chapter 5	Modified	 The following changes have been made throughout Chapter 5: Minor, stylistic wording changes; Replaced "facility" related defined terms with "resource" related defined terms, where required; As a matter of clean-up, deleted certain instances of "intentionally left blank – section deleted"; Replaced EST with EPT where applicable - EPT is used for activities occurring to run and publish information for the day-ahead market.
Chapter 5	4.5	Operating Reserve	Modified New Deleted	 Modified the following: Section 4.5.2A (new) - New section enables the <i>IESO</i> to apply voltage reductions and/or reduce the 30-min <i>operating reserve</i> requirement under <i>operating reserve</i> deficiency conditions; Existing section 4.5.6A – Deleted as control action <i>operating reserve</i> (CAOR) will no longer be represented as standing offers in the <i>operating reserve market</i> - CAOR will no longer be scheduled to meet <i>operating reserve</i> requirements.
Chapter 5	6.2	Outage Planning	Modified	Modified the following: • Section 6.2.3 – clarified the obligation to include all <i>planned outages</i> as part of

Chapter	Section	Topic	Type of	Description
Chapter	Section	ТОРІС	Change	Description
			Citatige	published daily assessments. Updated the time horizon (replaced 33 calendar days with 34 calendar days) to align with section 7.3.1.4.
Chapter 5	6.4	Submission of Outage Schedules and IESO Approval of Outage Schedules	Modified	Modified sections 6.4.1E and 6.4.4.5A to reflect changes to the timelines in the <i>one-day advance approval process</i> . These changes will align with the timing of the <i>day-ahead market</i> .
Chapter 5	7.3	Forecast and Assessments	Modified	Section 7.3.1.4 – deadline to issue advance assessments on a daily basis has been changed from 17:00 to 20:30 EST.
Chapter 5	8.4	Responsibilities of Market Participants Whose Facilities Form Part of an RAS	Modified	Section 8.4.1 – modified the conditions for compensation that is permitted to a <i>market participant</i> should their <i>resource</i> be activated as a result of a <i>remedial action scheme</i> (<i>RAS</i>).
Chapter 5	10	Demand Control	Modified	 Modified the following: Section 10.1.1 – replaced "load" with the defined term "demand"; Section 10.2.2 – minor clarification of language; Sections 10.2.3, 10.2.4 – updated notification timelines to EPT from EST – EPT is used for activities occurring to run and publish information for the day-ahead market; Section 10.3.7 – clarified that the obligation for the IESO is to publish the aggregate load curtailed.
Chapter 7	Throughout	General Changes Throughout Chapter 7	Modified	 The following changes have been made throughout Chapter 7: Minor, stylistic wording changes; Replaced "facility" related defined terms with "resource" related defined terms, where required; Incorporated the day-ahead market where applicable; As a matter of clean-up, deleted certain instances of "intentionally left blank – section deleted"; Renumbered sections/subsections and updated cross-references accordingly; Expanded acronyms;

Chapter	Section	Topic	Type of	Description
Chapter	Section	Торіс	Change	Description
				 Replaced EST with EPT, where applicable - EPT is used for activities occurring to run and publish information for the day-ahead market; Revised market rules section numbering convention – new convention will be uniform throughout the market rules and market manuals; For consistency with prior batches, amended references to "real-time market" and "day-ahead market" in their singular forms.
Chapter 7	Former 1.1	Introductory Rules - Purpose	Deleted	Deleted section 1.1 – "Purpose", which summarizes the purpose of the chapter. This section is redundant and unnecessary.
Chapter 7	1.1	Application	Deleted	Deleted section 1.2.2 which specifies that "the rules in this Chapter apply to both the 60 Hz and the 25 Hz portions of the <i>electricity system"</i> – 25Hz is no longer applicable, and this section is no longer required.
Chapter 7	1.2	Scope of the Physical Markets	Modified	 Modified the following: Section 1.2.1, 1.2.2 – Expanded the scope of physical markets to be inclusive of the dayahead market.
Chapter 7	1.6	IESO Authorities and Obligations Regarding the Operation of the IESO- Administered Markets	Modified New Deleted	 Former sections 1.7.1 to 1.7.5 - Deleted all sections pertaining to the day-ahead commitment process; Section 1.6.1 (move) - Inserted section obligating the <i>IESO Board</i> to specify parameters of the <i>day-ahead market calculation engine</i>, <i>pre-dispatch calculation engine</i>. This obligation currently exists in section 4.4.6 of Chapter 7 of the <i>market rules</i> and has been relocated here. Language has been updated to incorporate MRP defined terms and the <i>settlement floor price</i> for <i>energy</i> has been added to the list; Section 1.6.2 (move) - Inserted section obligating the <i>IESO Board</i> to establish floor prices for <i>variable generation resources</i> and <i>flexible nuclear generation</i>. This obligation currently exists in section 3.5.4A of Chapter 7 of the <i>market rules</i> and has been relocated here. Language has been updated to incorporate MRP defined terms and simplified;

Chapter	Section	Topic	Type of Change	Description
				 Section 1.6.3 (new) – Added new section obligating the <i>IESO</i> to establish limits for <i>virtual transactions</i> for any <i>virtual transaction zone</i>; Section 1.6.4 (new) – Added new section specifying the <i>IESO's</i> obligations if the <i>IESO</i> suspends the <i>day-ahead market</i> or <i>real-time market</i> for a given <i>dispatch day</i>; Section 1.6.5 (move) – Inserted section obligating the <i>IESO Board to</i> commission and <i>publish</i> the results of an independent review of the operation and application of the calculation engines and the related <i>dispatch</i> processes. This obligation currently exists in section 4.2.4 of Chapter 7 of the <i>market rules</i> and has been relocated here. Language has been updated for MRP; Section 1.6.6 (move) – inserted section allowing the <i>IESO</i> to limit the release of specific types of information that may facilitate anti-competitive behaviour. This authority currently exists in section 5.5.4 of Chapter 7 of the <i>market rules</i> and has been relocated here. Language has been updated for MRP.
Chapter	2.1	Requirements for Operating on the Grid	Modified	Section 2.1.3 – as a matter of clean-up, deleted cross reference to section 10.2.6.
Chapter 7	2.2	Facility and Associated Resources Registration	Modified	 Modified the following: Section 2.2.0 (new) – Added new section obligating the <i>IESO</i> to establish and maintain boundary entity resources and virtual zonal resources; Sections 2.2.9.2 and 2.2.9A.2 – Deleted sections in their entirety. These deletions are consequential to the amendments to section 2.2A – "Registration of Commissioning Generation Facilities" specifed below; Section 2.2.19.1 – for requests to change resource types from a non-dispatchable load to a dispatchable load, replaced "six months" with "180 calendar days" – these changes were made in MM 1.5 with the Interim Alignment batch – the timing in the market rules have been aligned;

Chapter	Section	Topic	Type of	Description
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				 Section 2.2.19.2 – for requests to change resource types from a non-dispatchable load to a price responsive load, replaced "one month" with "75 calendar days" – these changes were made in MM1.5 with the interim Alignment batch – the timing in the market rules have been aligned; Section 2.2.21 – Replaced "as further specified in Chapter 9" with "required for a GOG-eligible resource" – GOG eligibility components have been specified within the chapter 11 definition for GOG-eligible resource.
Chapter 7	2.2A	Registration of Commissioning Generation Facilities	Modified	To support the registration process for all resource types, market participants will register for the commissioning process based on their intended dispatchability, rather than only as a self-scheduling generation resource. Modified the following: • Deleted references to "as a self-scheduling generation facility"; • Updated language to incorporate the defined term "resource"; • other consequential wording changes.
Chapter 7	2.2D	Registration of Commissioning Electricity Storage Facilities	Modified	Modified this section consistent with the changes made in section 2.2A – Registration of Commissioning Generation Facilities.
Chapter 7	3	Data Submissions for the Day- Ahead Market and Real-Time Market	New Modified	Existing section 3 – "Data Submissions for the Real-Time Markets" has been substantially amended and reorganized. New section 3 has been renamed - "Data Submissions for the Day-Ahead and Real-Time Market".
Chapter 7	3.1			mission Requirements
		Dispatch Data Submission Process	New Modified	Sections 3.1.1 – 3.1.8 – specify the process to submit <i>dispatch data</i> to the <i>IESO</i> and the obligations of the <i>IESO</i> to accept, confirm or reject the submission. A majority of content has been moved from existing <i>market rules</i> with minor revisions, except for sections 3.1.3, 3.1.4A and 3.1.7 which are new:

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Chapter	Section	Topic	Type of	Description
			Change	Costion 2.1.1(vv. a)
				Section 3.1.1(move) – currently section
				3.2.1;
				• Section 3.1.2(move) – currently section
				3.2.2;
				 Section 3.1.3(new) – specify that "dispatch data submitted on a resource
				with the latest time stamp shall replace
				any <i>dispatch data</i> previously submitted on
				the <i>resource</i> for the corresponding
				dispatch day or dispatch hour, subject to
				section 3.1.4".
				Section 3.1.4(move) – currently section
				3.2.3; inserted "or shall be construed as
				an <i>IESO</i> determination under MR Ch.3
				s.6";
				 Section 3.1.4A(new) – specify that "for
				the purposes of this section 3, where the
				IESO has approved the submission of
				dispatch data, such approval shall not be
				construed as the IESO's determination
				that the <i>dispatch data</i> is compliant with
				any applicable obligations under these
				market rules, and shall not prejudice the
				IESO's rights or remedies under MR Ch.3
				s.6";
				Section 3.1.5(move) – currently section 3.2.4:
				3.2.4;
				Section 3.1.6(move) – currently section 3.2.5.
				3.2.5; • Section 3.1.7(new) – sets out that "for
				the purposes of this section 3, dispatch
				data that is submitted to the IESO
				through the electronic information system
				or by other means and that the <i>IESO</i> has
				rejected pursuant to section 3.1.4, or is
				otherwise not valid, shall be deemed not
				to have been submitted to the <i>IESO</i> ';
				Section 3.1.8(move) – currently section
				3.3.7.
		General	New	Sections 3.1.9 – 3.1.10 – obligates the <i>registered</i>
		Submission		market participants to submit dispatch data and
		Requirements		how dispatch data submitted into the day-ahead
				market is converted into dispatch data for the
				real-time market.
		Establishing an	New	Sections 3.1.11 – 3.1.14 –obligates the
		Availability		registered market participant for certain

Chapter	Section	Topic	Type of	Description
			Change	
		Declaration Envelope		dispatchable resources to establish an availability declaration envelope to enable participation in the real-time market
Chapter 7	3.2	Dispatch Data S	ubmissions	in the Day-Ahead Market
		Submissions During the DAM Submission Window	New	Sections 3.2.1 – 3.2.3 – obligates the <i>registered market</i> to submit <i>dispatch data</i> into the <i>day-ahead market submission window</i> .
		Submissions During the Day-Ahead Market Restricted Window	New	Sections 3.2.4 – 3.2.6 – authorizes the <i>IESO</i> to approve the submission of <i>dispatch data</i> during the <i>day-ahead market restricted window</i> and specify which <i>dispatch data</i> will be used in the <i>day-ahead market calculation engine</i> .
Chapter 7	3.3	Dispatch Data Submissions in the Real-Time Market	New	Sections 3.3.1 – 3.3.2 – specify the types of dispatch data used in the determination of the pre-dispatch schedule and which submissions are deemed to constitute a revision of dispatch data.
	3.3.3	Submissions During the RTM Unrestricted Window for Hourly Dispatch Data	New Modified	This section of 3.3.3 authorizes, subject to certain restrictions, a <i>registered market participant</i> to revise hourly <i>dispatch data</i> during the <i>real-time market unrestricted window</i> . Section 3.3.3.1 (move) – currently section 3.3.18.
Chapter 7	3.3.4	Replacement Energy Offers	Modified New	This existing section (currently section 3.3.4B) has been modified to reflect the new defined terms for "resource" and "combined cycle plant". New section 3.3.4.3 specifies that a generation resource utilized for the replacement energy offer is ineligible for the day-ahead market or real-time market generator offer guarantee.
Chapter 7	3.3.5 – 3.3.6	Revisions During the RTM Mandatory Window for Hourly Dispatch Data Parameters	New Modified	These sections authorize, subject to certain restrictions, a <i>registered market participant</i> to submit revised <i>dispatch data</i> during the <i>real-time market mandatory window</i> .
Chapter 7	3.3.7	Revisions During the RTM Restricted Window for	New	This section authorizes a <i>registered market</i> participant to submit revisions to daily <i>dispatch</i> data during the <i>real-time market restricted</i> window.

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Chapter	Section	Topic	Type of Change	Description
		Daily Dispatch	Change	
		Data		
Chapter 7	3.3.8	Obligation to Revise Dispatch Data	Modified	This existing section has been modified to reflect the new defined term "resource," and a minor clarification to specify that the difference being assessed are "in the dispatch hour." Section 3.3.8.1 - replaced "market schedule" with "schedule".
Chapter 7	3.3.9	Standing Dispatch Data	Modified	This existing section has been modified to specify that the standing <i>dispatch data market rules</i> are inclusive of hourly and daily <i>dispatch data</i> . The language in this section has also been simplified.
Chapter 7	3.3.10 – 3.3.18	IESO Authorities to Direct Submission or Revision of Dispatch Data	Modified	This existing section has been modified to incorporate the new defined terms "resource" and "day-ahead schedule". Existing section 3.3.18 has been relocated to new section 3.3.3.1.
Chapter 7	3.3A	Dispatch Data Submissions for the Day- Ahead Commitment Process	Deleted	Section 3.3A has been deleted in its entirety. Required content has been incorporated into section 3.3.3 as amended.
Chapter 7	3.4	The Form of Dispatch Data	New Modified	This section specifies the type of <i>dispatch data</i> (<i>offer</i> or <i>bid</i>) submitted by each <i>resource</i> and a description of the service the <i>dispatch data</i> represents. The section has been modified to capture additional <i>resource</i> types, deletes unnecessary descriptive content, and aligns <i>market rule</i> language across <i>resource</i> types. The following sections are largely based on existing <i>market rule</i> section 3.4: Section 3.4.2 – based on existing section 3.4.3; Section 3.4.3 – based on existing section 3.4.4; Section 3.4.4 – based on existing section 3.4.4A; Section 3.4.5 – based on existing section 3.4.4B; Section 3.4.6 – based on existing section 3.4.4C;

Chapter	Section	Topic	Type of	Description
Chapter	Section	Торіс	Change	Description
			J	• Section 3.4.7 – based on existing section 3.4.5.
Chapter 7	3.5	Energy Offer and Energy Bids	Modified	Section 3.5 specifies the content of <i>dispatch data</i> submissions from <i>registered market participants</i> , which include hourly and daily <i>dispatch data</i> parameters and the requirements for the submission of each parameter. Sections 3.5.1 and 3.5.2 – these sections are largely based on existing <i>market rule</i> sections 3.5.1 and 3.5.2, with minor language changes.
Chapter 7	3.5.3 – 3.5.18	Hourly Dispatch Data Parameters	New Modified	These modified and new sections specify the required and optional hourly <i>dispatch data</i> parameters and the related submission requirements for each parameter. The following sections are largely based on existing <i>market rule</i> section 3.5: • Section 3.5.5, 3.5.5.1, 3.5.5.2, 3.5.5.3, 3.5.5.4 - based on existing section 3.5.3; • Section 3.5.5.8 – based on existing section 3.5.4; • Section 3.5.6 – based on existing section 3.5.4; • Section 3.5.7 – based on existing section 3.5.5; • Section 3.5.9 – based on existing section 3.5.6; • Section 3.5.10 – based on existing section 3.5.6A; • Section 3.5.11 – based on existing section 3.5.6B; The following sections are new: • Sections 3.5.3, 3.5.4, 3.5.8, 3.5.12 to 3.5.18.
Chapter 7	3.5.19 – 3.5.20	Linked Wheeling Through Transactions	Modified	These existing sections have been modified to incorporate the new defined terms for " <i>linked wheeling through transactions</i> " and " <i>resource</i> ". The section has been updated to specify that the <i>IESO</i> shall assess <i>linked wheeling through</i>
				transactions together as linked transactions.

Chapter	Section	Topic	Type of	Description
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Chapter 7	3.5.21 – 3.5.35	Daily Dispatch Data Parameters	New	These new sections sets out the optional and mandatory daily <i>dispatch data</i> parameters and the related submission requirements for each parameter.
Chapter 7	3.6	Operating Reserve Offers	Modified New	This section sets out the requirements for registered market participants to submit operating reserve offers. The section has been modified to clarify the obligations for certain resource types to submit
				operating reserve offers. The section has also added the requirements related to the submission of a reserve loading point for each class of operating reserve offered.
Chapter 7	3.7 – 3.9	Self-Scheduling & Intermittent Resources	Modified Deleted	These sections sets out the requirements for registered market participants for the self-scheduling and intermittent generation resource types to submit dispatch data. The sections have been modified to include the obligation for the resources to submit into the day-ahead market. References to the day-ahead commitment process and dispatch data requirements have been deleted.
				Section 3.8.A for <i>transitional scheduling generators</i> has been deleted in its entirety, as they no longer exist.
Chapter 7	3.10	Virtual Zonal Resources	New	This new section sets out the requirement for virtual traders when submitting energy offers or bids into the day-ahead market.
Chapter 7	3.11	Price Responsive Loads	New	This new section sets out the requirements for registered market participants to submit energy bids for price responsive loads in the day-ahead market.
Chapter 7	3.12	Transmission System Information	Modified	The section specifies the obligations for transmitters to submit information to the IESO. Minor changes have been made to: Update submission timelines from EST to EPT, where applicable; replace "pre-dispatch day" with "the day prior to the relevant dispatch day".
Chapter 7	ЗА	The Scheduling Process	New	This section obligates the <i>IESO</i> to determine certain inputs used to establish schedules and prices, and the <i>IESO's</i> use of the outputs of the

Chapter	Section	Topic	Type of	Description
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				pre-dispatch calculation engine and real-time calculation engine.
Chapter 7	Existing Sections 4, 5 and 6	The Dispatch Algorithm, The Pre-Dispatch Scheduling Process and The Real-Time Scheduling Process	Deleted	Existing Sections 4, 5 and 6 have been deleted in their entirety and replaced with the following new sections further described below: • Section 4 – The Day-Ahead Market; • Section 5 – The Pre-Dispatch Process; and • Section 6 – The Real-Time Market.
Chapter 7	4, 5, 6	The Day- Ahead Market The Pre- Dispatch Process The Real-Time Market	New	These new sections establish the scheduling process of the <i>day-ahead market, pre-dispatch process and real-time market</i> timeframes, and sets out the requirements to issue or <i>publish</i> related scheduling information (e.g. schedules, commitments and prices).
Chapter 7	7	IESO Dispatch Instructions	Modified Deleted	Section 7 – IESO Dispatch Instructions specifies the obligations for the <i>IESO</i> related to the issuance of <i>dispatch instructions</i> and the obligations for <i>market participants</i> to comply with <i>dispatch instructions</i> . Relatively minor modifications have been made throughout section 7, including the incorporation of new MRP related defined terms. Other changes are further specified below.
Chapter 7	7.1	Purpose and Timing of Dispatch Instructions	Modified	Section 7.1.1A has been modified to specify the resources the IESO will send dispatch instructions to. References to section 7.1.1A have been added throughout section 7 to identify these resources. The section has been modified to place the two existing conditions required for the IESO to issue a dispatch instruction as subsections 7.1.1A.1 and 7.1.1A.2.
Chapter 7	7.2	Information Used to Determine Dispatch Instructions	Modified	 Existing section 7.2.1 has been separated into two <i>market rules</i> for clarity: Section 7.2.1 specifies the obligation of the <i>IESO</i> to issue <i>dispatch instructions</i> consistent with the <i>real-time schedule;</i> and new section 7.2.1A adds that in the limited scenarios specified in existing section 7.2.1 of the <i>market rules,</i> that the <i>IESO</i> shall not be required to issue <i>dispatch instructions.</i>

Chapter	Section	Topic	Type of	Description
Chapter	Section	Торіс	Change	Description
			change	 The existing language of "the IESO may, however issue dispatch instructions that depart from the real-time schedule" has been replaced with "in the event that the IESO does issue dispatch instructions, shall not be required to satisfy the requirements of section 7.2.1." Sections 7.2.5 and 7.2.5A, which mirror sections 7.2.1 and 7.2.1A for boundary entity resources and the pre-dispatch schedule, have been amended in a similar manner.
Chapter 7	7.3	The Content of Dispatch Instructions	Modified	Sections 7.3.2.3 and 7.3.5.2 relating to the calculation of congestion management <i>settlement</i> credits, have been deleted. The calculation of make-whole payments and the inputs into the calculation have been specified in Chapter 9 of the <i>market rules</i> .
Chapter 7	7.4	IESO Dispatch of Operating Reserve	No Change	No substantive changes – sections updated to reflect MRP defined terms. Note: Section 7.4 will be further modified upon completion of MRP integration of Improving Accessibility of Operating Reserve.
Chapter 7	7.5	Compliance with Dispatch Instructions	Modified	As a matter of clean-up, obsolete sections 7.5.5 and 7.5.5A have been deleted. Section updated to reflect MRP defined terms.
Chapter 7	7.6	Dispatch Scheduling Errors	Modified	 Modified the following: Section 7.6.4, related to compensation for a dispatch scheduling error – "congestion management settlement credit" has been replaced with "applicable day-ahead market and real-time market make-whole payment settlement amounts"; Section 7.6.5 – as a matter of clean-up, corrected cross-reference.
Chapter 7	7.8	Publication of Real-Time Dispatch Information	Deleted	Existing section 7.8 has been deleted in its entirety to remove redundant content from the <i>market rules</i> . The obligations to <i>publish</i> real-time information and issue <i>market participant</i> specific information can be found in sections 6.6 and 6.7.
Chapter 7	8	Determining Market Prices and Economic	Modified Deleted	This section has been modified to delete redundant content in the <i>market rules</i> . The processes described in section 8.1 and 8.2 are

Chapter	Section	Topic	Type of	Description
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Chapter 7	8.1 – 8.2	Operating Points Market Prices		included in sections 4 – 6 of Chapter 7 and the calculation engine appendices. Where applicable, sections 8.1 and 8.2 reference the appropriate <i>market rules</i> and processes that describe the determination of <i>market prices</i> .
Chapter 7	Existing section 8.3	Uniform Ex- Post Prices for Each Hour	Deleted	This section has been deleted as sections 8.1 and 8.2 include the appropriate price determination content.
Chapter 7	8.3	Ex-Post Determination of Economic Operating Points	New	This section specifies the <i>IESO's</i> obligation to determine economic operating points which support the calculation of make-whole payment <i>settlement amounts</i> in Chapter 9 of the <i>market rules</i> .
Chapter 7	8.4A	Administrative Pricing	Modified Deleted	 Modified the following: Section 8.4A – Throughout: Specified references to the real-time market i.e. energy and operating reserve for the real-time market; Included reference to the day-ahead market, where applicable; Removed references to "market schedules" which are no longer required; Section 8.4A.2 – Modified section to include the IESO obligation to establish administrative prices within four business days (rather than two); Section 8.4A.2.3 – The IESO Board approved acceptable causal events have been relocated to the market rules in new section 8.4A.3B, which will enable the removal of "approved by the IESO Board"; Section 8.4A.2.4 (new) – consistent with existing section 8.4A.2.3 for the real-time market, new section obligates the IESO to determine administrative prices under specific day-ahead market pricing errors that meet IESO determined price error materiality thresholds. The acceptable causal events applicable to the day-ahead market have been included in new section 8.4A.3C; Section 8.4A.3 - Modified section to specify the IESO is not required to established administrative prices beyond four business days in certain circumstances;

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				• Section 8.4A.9 – 8.4A.16 – sections covering the process to request additional compensation (8.4A.9 – 8.4A.11) and settlement adjustments (8.4A.13 – 8.4A.16) as a result of <i>administrative pricing</i> , have been deleted and are no longer required under MRP.
Chapter 7	9	IESO Procurement Markets	Modified	 Modified the following: Incorporated new MRP related defined terms and specified facility, resource, or unit level applicability of obligations related to ancillary services; Section 9.4.5 – replaced "congestion management settlement credit" with "dayahead market or real-time market makewhole payment settlement amount"; Section 9.6.2 – replaced constrained-on and constrained-off facility terminology (no longer applicable) with detail on how a reliability must-run resource is dispatched.
Chapter 7	Existing Section 10	Intentionally Left Blank	Deleted	Existing section 10 - "Intentionally Left Blank" has been deleted in its entirety with the section number repurposed with new section 10 - "Instructions for GOG Eligible Resources".
Chapter 7	10.1	Start-Up Notice	New	This section sets out the requirements of the <i>IESO</i> and <i>registered market participants</i> for a <i>GOG-eligible resource,</i> in relation to issuing and receiving <i>start-up notices.</i>
Chapter 7	10.2	Notice of De- commitment	New	This section sets out the requirements of the <i>IESO</i> and <i>registered market participants</i> for a <i>GOG-eligible resource</i> in relation to issuing and receiving a notice of de-commitment.
Chapter 7	10.3	Day-Ahead Operational Commitment and Pre- Dispatch Operational Commitment	New	This section sets out the requirements of the IESO and <i>registered market participants</i> for a <i>GOG-eligible resource</i> in relation to the cancellation or withdrawal of a <i>day-ahead operational commitment</i> or <i>a pre-dispatch operational commitment</i> .
Chapter 7	11	Synchronizatio n Procedures	Modified	 Incorporated new MRP related defined terms and specified market participant, resource and unit obligations for generation and electricity storage throughout section 11, where applicable. Introduced distinct provisions for quick start resources and non-quick start resources to

Chapter	Section	Topic	Type of	Description
oaptci	300001	.00.0	Change	- 5551 paion
				specify the process for synchronization and desynchronization.
Chapter 7	11.2	Process for synchronization	Modified	 Section 11.2.1 - Added sub-title "Quick Start Resources". Deleted existing language requiring two-hour notice to be provided to the <i>IESO;</i> Section 11.2.2 (new) - Deleted existing provision and replaced with a new provision setting out requirements for <i>registered market participants</i> for a <i>GOG-eligible resource</i> that receives a <i>start-up notice;</i> Section 11.2.2A (new) - Added new provision to set out requirements for a <i>non-quick start resource</i> that intends to synchronize; Section 11.2.3 - replaced "<i>generator</i> or <i>electricity storage participant</i>" with "<i>non-quick start resource</i>"; Section 11.2.4A (new) - Added new provision to establish <i>IESO's</i> authority to approve synchronization for <i>security</i> and <i>adequacy</i> reasons when approval is not requested in advance; Section 11.2.6 - inserted "without limiting the obligation to provide notice under section 10.1.5" - Clarified the interaction with the required notice for synchronization and the notice required in relation to a <i>start-up notice</i>.
Chapter 7	11.3	Process for Desynchronization	Modified New	 Modified the following: Section 11.3.1 (new) - Replaced existing provision with a new five-minute notification requirement for a <i>quick start resources</i> intending to de-synchronize; Section 11.3.1A (new) - Added a new provision to set out requirements for the desynchronization procedure for a <i>GOG-eligible resource</i>; Section 11.3.2 (new) - Replaced existing provision with a new provision that establishes a one-hour notification requirement for a <i>non-quick start resource</i> intending to de-synchronize; Section 11.3.4A (new) - Added a new provision to authorize the <i>IESO</i> to approve de-synchronization in certain instances when

Chapter	Section	Topic	Type of	Description
Chapter	Section	Торіс	Change	Description
				 a generation resource or electricity storage resource does not request prior approval; Section 11.3.7 - inserted "without limiting the obligation to provide notice under section 10.2.4" - Clarified the interaction with the required notices for de-synchronization and the notices for de-commitment pursuant to section 10.2.4.
Chapter 7	11.4	Reliability	New	Section 11.4.1 (new) - new provision based on existing <i>market rule</i> section 5.8.6 of Chapter 7, which establishes <i>IESO</i> authority to direct a <i>resource</i> to de-synchronize, or to not synchronize, in order to maintain <i>reliability</i> .
Chapter 7	12.1	IESO System Status Reports and Advisory Notices	Modified	 Modified the following: Replaced "pre-dispatch day" with a reference to the "day prior to the relevant dispatch day"; Updated "EST" to "EPT" only for activities occurring to run and publish information for the day-ahead market; Section 12.1.1.6 – added "projected energy shortfalls" to the list of forecasts; Section 12.1.1.8 – updated the frequency for the forecasts of expected transmission limits with outages to be published from "hourly" to "twice each hour"; Section 12.1.5 – deleted redundant section.
Chapter 7	12.2	Over- Generation and Under- Generation Advisories	Modified	 Modified the following: Replaced "system notice" with "advisory notice"; Updated section to incorporate MRP related defined terms related to "resource"; For sections related to soliciting and accepting additional bids, or soliciting and accepting offers – removed reference to specific resource types as the language was unnecessary.
Chapter 7	13.1	Introduction	Modified	Section 13.1.1 – the definition for " <i>market operations</i> " has been deleted from the body of this section and added to the defined terms in Chapter 11 of the <i>market rules</i> .
Chapter 7	13.2	Market Suspension Events	Modified	Section 13.2.4 – incorporated new defined term for "electrical island".

Chapter	Section	Topic	Type of	Description
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Chapter 7	13.3	Insufficient Reasons for Market Suspension	Modified	 Modified the following: Deleted "Insufficient" from the title of the section; Section 13.3.1 – replaced "has become substantially impaired" with "has or will become substantially impaired"; Replaced "MMCP" acronym with "maximum market clearing price".
Chapter 7	13.4	IESO Declaration of Market Suspension	Modified	Section 13.4.2 – replaced "dispatch" with "dispatch interval".
Chapter 7	13.5	IESO Responsibilities During Market Suspension	Modified New	 Modified the following: Section 13.5.1.4 (new) - Replaced "intentionally left blank" with new section "suspend the day-ahead market when a suspension of the real-time market is expected to be in effect for future business days";
Chapter 7	13.6	Participant Responsibilities and Compensation	Modified	Italicized "market operations" – new defined term added to Chapter 11 of the market rules.
Chapter 7	13.7	Ending and Reporting on Market Suspension	Modified	 Modified the following: Section 13.7.3.2 (new) - Added new provision for "the date and time period of the suspension of <i>market operations."</i>
Chapter 7	18	Capacity Auctions	No Change	Note: Section 18 will be further modified upon completion of the Capacity Auction Enhancements – Streams 1 and 2. No substantive changes.
Chapter 7	19	Capacity Market Participants with Capacity Obligations	Modified	Note: Section 19 will be further modified upon completion of the Capacity Auction Enhancements – Streams 1 and 2.
Chapter 7	19.2	Eligibility Requirements for Hourly Demand Response Resources	Modified	Section 19.2.4.1 – as a matter of clean-up, deleted cross reference to section 5A of Chapter 2. Section was deleted as part of the deletion of capacity based demand response program.
Chapter 7	19.3	Eligibility Requirements for Capacity	Modified	Modified the following: • Section 19.3.1.3 - Added "load" before facilities, added "as a dispatchable load",

Chapter	Section	Topic	Type of	Description
			Change	
		Dispatchable Load Resources		 added "applicable" – language consistent with section 19.6.1.3; Deleted "for wholesale consumers that are dispatchable loads".
Chapter 7	19.4	Energy Market Participation for Hourly Demand Response Resources	Modified New	 Modified the following: Section 19.4.2 – replaced "day-ahead schedule", and replaced "shadow price" with "locational marginal price"; Section 19.4.4 – Inserted "Subject to 19.4.4B"; replaced "ahead of" with "no later than 2 hours before" the activation period; inserted "for the pre-dispatch calculation engine run three hours before the activation period"; Sections 19.4.4A and 19.4.4B (new) - Added new provisions related to IESO obligations for the issuance of activation notices – these obligations have been taken from existing market manuals and inserted into the market rules with minor amendments. This change also provides further alignment and consistency of language with updates to the dispatch instruction sections 7.2.1 and 7.2.5.
Chapter 7	20	Capacity Exports in the IESO- Administered Markets	Modified New	Modified the following: • Section 20.4.1 (new) - Added new provision allowing only the <i>registered market participant</i> for the <i>resource</i> approved by the <i>IESO</i> to submit export <i>bids</i> for called <i>capacity exports</i> .
Chapter 7	21.2	Market Registration	Modified	 Modified the following: Sections 21.2.1 and 21.2.3 – replaced "fulfill" with "satisfy" – change made in response to stakeholder comments for more consistency in language between section 21.2.1 and 21.2.3; Section 21.2.3 – inserted "the <i>electricity storage participant</i> shall satisfy" – change made in response to stakeholder comments for more consistency in language between section 21.2.1 and 21.2.3; Section 21.2.4 - revised to be consistent with the approach used in sections 21.2.2 and 21.3.3. Specifically, <i>resources</i> 'participate' in markets, and 'provide'

Chapter	Section	Topic	Type of	Description
•		•	Change	•
				ancillary services. Inserted "to" to correct grammatical error.
Chapter 7	21.4	Energy Offers and Energy Bids	Modified	Existing section 21.5.3 of the <i>market rules</i> , which had been deleted as part of MR-00457-R02 – Interim Alignment – Storage Integration has been re-inserted into section 21.4.3 (new). The <i>IESO</i> has modified the existing language by replacing "congestion management <i>settlement</i> credit" with "the <i>day-ahead market</i> make-whole payment or <i>real-time market</i> make-whole payment"; cross references to the applicable sections in Chapter 9 have been updated.
Chapter 7	21.5	Revisions to Dispatch Data	Modified	 Modified the following: Section 21.5.1 – Deleted "notwithstanding section 3.3.5" for redundancy; Replaced "2 hours of a given dispatch hour" with the new defined term "real-time market mandatory window".
Chapter 7	21.6	Operating Reserve	Modified	 Modified the following: Section 21.6.3.2 – Updated language for consistency with language in section 21.6.2.2.
Chapter 7	21.7	Interpretation	Modified	Section 21.7.3 - Corrected cross-reference.
Chapter 7	22	Market Power Mitigation		Note: The March 16, 2023 edits to section 22 – Market Power Mitigation have been shown as tracked changes. Only three <i>market rule</i> cross referencing style changes to conform to the new format have been made.
Chapter 7 Appendix 7.1-7.3	Throughout	Energy Offer, Schedule or Forecast Information Energy Bid Information Operating Reserve Offer Information	Modified	 The following changes have been made throughout Chapter 7, Appendix 7.1-7.3: Revised to incorporate minor, stylistic wording changes; As a matter of clean-up, deleted instances of "intentionally left blank – section deleted"; Renumbered section/subsections and updated cross-references accordingly; Incorporated the new defined term 'resource' where applicable; Deleted uses of previously defined term "registered facility" and replaced with the appropriate defined term e.g. "facility", "resource" or "generation resource" as the case may be;

Chapter	Section	Topic	Type of	Description
			Change	·
				 Replaced instances of "Contact information" with "Registered market participant"; Replaced instances of "Hour(s)" with "dispatch day and dispatch hour(s)"; Replaced instances of "category" with "class"; Updated references to NERC transactions and incorporated "e-Tag"; Added instances of "operating reserve class" as part of an offer submission; Replaced instances of "by boundary entity resource as created by the IESO" with "interconnection and boundary entity resource".
Chapter 7 Appendix 7.1	1.1	Energy Offers/Schedul es/Forecasts from Generation Resources	Modified New	 Modified the following: Section title – Replaced "Within the IESO Control Area" with "Energy Offers/Schedules/Forecasts from Generation Resources". Section 1.1.1 (new) - Added a new introductory clause for this section. Section 1.1.7 (new) – Added new provision to specify additional, mandatory dispatch data parameters for a dispatchable generation resource other than a quick-start resource or a nuclear generation resource.
Chapter 7 Appendix 7.1	1.2	Energy Offers from Imports	Modified New	 Modified the following: Section title – Replaced "Offers Outside the IESO Control Area" with "Energy Offers from Imports"; Section 1.2.1 (new) - Added new introductory clause for this section; Previous section 1.2.6 – Deleted "daily energy limit (if applicable)" as a minimum requirement; Section 1.2.9 – inserted "notwithstanding section 3.3 of Chapter 7"; Section 1.2.10 (new) - Added new provision for "capacity transaction parameter, if applicable".
Chapter 7 Appendix 7.1	1.3	Energy Offers for Virtual Zonal Resources	New	This new section has been added to set out requirements for <i>registered market participants</i> participating as <i>virtual traders</i> when submitting <i>offers</i> for a <i>virtual zonal resource</i> .
Chapter 7 Appendix	1.1	Energy Bids from Load Resource	Modified	Modified the following:

Chapter	Section	Topic	Type of	Description
			Change	
7.2				 Section title - Replaced "Within the IESO Control Area" with "Energy Bids from Load Resources". Section 1.1.1 (new) - Added new introductory clause for this section; Section 1.1.2 - Replaced "Unique <i>load</i> identifier" with "<i>Resource</i> name".
Chapter 7 Appendix 7.2	1.2	Energy Bids from Exports	Modified	 Modified the following: Section 1.2 - Section title – Replaced "Bids Outside the Control Area" with "Energy Bids from Exports" Section 1.2.1 (new) - Added new introductory clause for this section; Section 1.2.9 – inserted "notwithstanding section 3.3 of Chapter 7"; Section 1.2.10 - Added new provision for "Capacity transaction parameter, if applicable".
Chapter 7 Appendix 7.2	1.3	Energy Bid Information	New	This new section has been added to set out requirements for <i>registered market participants</i> participating as <i>virtual traders</i> when submitting <i>bids</i> for a <i>virtual zonal resource</i> .
Chapter 7 Appendix 7.3	1.1	Operating Reserve Offers from Generation Resources	Modified New	 Modified the following: Section title - Replaced "Generators Within the IESO Control Area" with "Operating Reserve Offers from Generation Resources"; Section 1.1.1 (new) - Added new introductory clause for this section.
Chapter 7 Appendix 7.3	1.2	Operating Reserve Offers from Imports	Modified New	 Modified the following: Section title – Replaced "Offers Outside the Control Area" with "Operating Reserve Offers from Imports"; Section 1.2.1 (new) - Added new introductory clause for this section.
Chapter 7 Appendix 7.3	1.3	Operating Reserve Offers from Dispatchable Loads	Modified New	 Modified the following: Section title - Replaced "Within the IESO Control Area" with "Operating Reserve Offers from Dispatchable Loads"; Section 1.3.1 - Added new provision to establish the minimum offer requirements for a dispatchable load to provide operating reserve.
Chapter 7 Appendix 7.3	1.4	Operating Reserve Offers from Exports	Modified New	Modified the following: • Section 1.4 - Section title – Updated existing title from "Loads Outside the Control Area" to "Operating Reserve Offers from Exports";

Chapter	Section	Topic	Type of	Description
			Change	
				 Section 1.4.1 (new) - Added new introductory clause for this section.
Chapter 7 Appendix 7.4	1.1	Transmission Information Required for Scheduling and Dispatching	Modified	Modified the following: • Section 1.1.3.1 - Replaced "scheduling dispatch and pricing algorithm" with "dayahead market calculation engine, pre-dispatch calculation engine and real-time calculation engine".
Chapter 7 Appendix 7.7	1.1	Applicable Configurations	Modified	Updated to reflect new "resource" related defined terms.
Chapter 7 Appendix 7.7	1.2	Dispatch Data	Modified	Updated to reflect new "resource" related defined terms.
Chapter 7 Appendix 7.7	1.3	Scheduling & Scheduling Approval	Modified	Modified the sections related to segregated mode of operations, and the requirements for a registered market participant when submitting a request for segregation.
Chapter 7 Appendix 7.7	1.4	Dispatch Data	No Change	No substantive changes.
Chapter 7 Appendix 7.8	1	Introduction	New	Appendix 7.8 (new) – Economic Operating Point Identifies the purpose of the appendix.
Chapter 7 Appendix 7.8	2	Day-Ahead Market (DAM) Lost Cost (LC) Economic Operating Point (EOP)	New	Identifies the procedure of calculating the lost cost economic operating point for eligible resources in the day-ahead market (DAM LC EOP).
Chapter 7 Appendix 7.8	2.1	Purpose	New	Identifies the purpose of calculating the DAM LC EOP.
Chapter 7 Appendix 7.8	2.2	Sets, Indices and Parameters used by the Day-Ahead Market Lost Cost Economic Operating	New	Section defines the mathematical notations, used by the DAM LC EOP and that correspond to <i>resource</i> specific data, <i>IESO</i> input data, and data derived by the DAM LC EOP.

Chapter	Section	Topic	Type of Change	Description
		Point Calculation		
Chapter 7 Appendix 7.8	2.3	Objective Function	New	Section identifies the optimization variables used to calculate the DAM LC EOP and describe the DAM LC EOP optimization problem.
Chapter 7 Appendix 7.8	2.4	Constraints	New	Section describes the constraints that govern the DAM LC EOP optimization problem and that correspond to scheduling variable bounds, regulation requirements, market participant requirements, operating reserve ramping, pseudo-units and resources with linked forebays.
Chapter 7 Appendix 7.8	2.5	Calculation of DAM LC EOP for Resources with a Linked Forebay Under Certain Conditions	New	Section describes the calculation of DAM LC EOP for <i>resources</i> with a <i>linked forebay</i> under certain constraints that correspond to constraint violation prices, <i>resource</i> hourly and daily constraints and <i>reliability</i> .
Chapter 7 Appendix 7.8	2.6	Outputs	New	Section describes the final calculations of the DAM LC EOP used for <i>settlement</i> for each <i>resource</i> type.
Chapter 7 Appendix 7.8	3	Real-Time (RT) Lost Cost (LC) Economic Operating Point (EOP)	New	Section identifies the procedure of calculating the real-time lost cost economic operating point (RT LC EOP).
Chapter 7 Appendix 7.8	3.1	Purpose	New	Section identifies the purpose of calculating the RT LC EOP.
Chapter 7 Appendix 7.8	3.2	Sets, Indices and Parameters used by the Real-Time Lost Cost Economic Operating Point Calculation	New	Section defines the mathematical notations, used by the RT LC EOP and that correspond to resource-specific data, <i>IESO</i> input data, and data derived by the RT LC EOP.

Chapter	Section	Topic	Type of Change	Description
Chapter 7 Appendix 7.8	3.3	Objective Functions	New	Section identifies the optimization variables used to calculate the RT LC EOP and describe the RT LC EOP optimization problem.
Chapter 7 Appendix 7.8	3.4	Constraints	New	Section describes the constraints that govern the RT LC EOP optimization problem and that correspond to scheduling variable bounds, regulation requirements, market participant requirements, operating reserve ramping and pseudo-units.
Chapter 7 Appendix 7.8	3.5	Outputs	New	Section describes the final calculations of the RT LC EOP used for <i>settlement</i> for each <i>resource</i> type.
Chapter 7 Appendix 7.8	4	Real-Time (RT) Lost Opportunity Cost (LOC) Economic Operating Point (EOP)	New	Section identifies the procedure of calculating the RT LOC EOP.
Chapter 7 Appendix 7.8	4.1	Purpose	New	Section identifies the purpose of calculating the RT LOC EOP.
Chapter 7 Appendix 7.8	4.2	Sets, Indices and Parameters used by the Real-Time Lost Opportunity Cost Economic Operating Point Calculation	New	Section defines the mathematical notations, used by the RT LOC EOP and that correspond to resource-specific data, IESO input data, and data derived by the RT LOC EOP.
Chapter 7 Appendix 7.8	4.3	Objective Function	New	Section identifies the optimization variables used to calculate the RT LOC EOP and describe the RT LOC EOP optimization problem.
Chapter 7 Appendix 7.8	4.4	Constraints	New	Section describes the constraints that govern the RT LOC EOP optimization problem and that correspond to scheduling variable bounds, regulation requirements, market participant

Chapter	Section	Topic	Type of Change	Description
			Citatige	requirements, <i>operating reserve</i> ramping and <i>pseudo-units</i> .
Chapter 7 Appendix 7.8	4.5	Outputs	New	Section describes the final calculations of the RT LOC EOP used for <i>settlement</i> for each type of <i>resources</i> .
Chapter 11	n/a	All	New Modified Deleted	Various – new defined terms are proposed to support amendments made for the Market and Systems Operations Batch. Defined terms that were introduced to stakeholders but have not been through the Technical Panel process are reintroduced here as new changes. Changes that have been made to defined terms that have been through the Technical Panel process and provisionally approved by the <i>IESO Board</i> are explained below. Some defined terms are deleted where they are no longer required.
Chapter 11	n/a	binding pre- dispatch advisory schedule	Modified	This defined term was introduced in the Settlements batch. Further refinements have been made to add clarity to the definition.
Chapter 11	n/a	cascade group	Modified	This defined term was introduced in the Settlements batch. Further refinements have been made to remove the requirement for the same owner across <i>forebays</i> .
Chapter 11	n/a	day-ahead operational commitment	Modified	This defined term was introduced in the Settlements batch. The section reference has been updated.
Chapter 11	n/a	day-ahead operational schedule	Modified	This defined term was introduced in the Settlements batch. An update has been made to improve clarity.
Chapter 11	n/a	dispatch data	Modified	This defined term was introduced in the Market Entry and Prudentials batch. The section reference has been updated.
Chapter 11	n/a	dispatchable load	Modified	Load resource was added to this existing term in the Market Entry and Prudentials batch. The definition has been further refined to include the day-ahead market.
Chapter 11	n/a	elapsed time to dispatch	Modified	This existing term was amended in the Market Entry and Prudentials batch to integrate the term <i>resource</i> . Additional refinements have been made to specify the relationship with market registration.

Chapter	Section	Topic	Type of Change	Description
Chapter 11	n/a	extended pre- dispatch operational commitment	Modified	This defined term was introduced in the Settlements batch. The section reference has been updated.
Chapter 11	n/a	generation station service	Modified	This existing term was amended in the Interim Alignment batch to integrate the term <i>resource</i> . Further amendments correct a reference to the defined term <i>generation facility</i> , with updates to conform to the new convention for <i>market rule</i> cross references.
Chapter 11	n/a	intertie border price	Modified	This defined term was amended in both the Market Power Mitigation and Calculation Engine batches. As the Market Power Mitigation batch has been provisionally board-approved, changes are tracked against that version. The definition has been refined to be more specific in the various references to prices.
Chapter 11	n/a	lead time reference level	New	This definition was introduced in the March update to the Market Power Mitigation batch. Since this occurred after the batch received provisional <i>IESO Board</i> approval, it is presented here as a new definition.
Chapter 11	n/a	linked wheeling through transaction	Modified	The section reference is updated from the draft introduced in the Settlements batch.
Chapter 11	n/a	maximum daily energy limit	Modified	This definition was introduced in the Market Power Mitigation batch and was amended in the Calculation Engines batch. Further refinements specify its application for different <i>resource</i> types. As well, the reference to hydro <i>resources</i> is no longer needed because the detail is included in Chapter 7 section 3.5.25.1. Both the Calculation Engines batch changes along with those proposed here are shown.
Chapter 11	n/a	maximum daily trading limit	Modified	The definition that was proposed in the Market Entry and Prudentials batch is amended to update the references to conform to the new convention for <i>market rule</i> cross references.
Chapter 11	n/a	maximum number of starts per day reference level	New	This definition was introduced in the March update to the Market Power Mitigation batch. Since this occurred after the batch received provisional <i>IESO Board</i> approval, it is presented here as a new definition.
Chapter 11	n/a	minimum daily energy limit	Modified	Part of the definition that was included in the Settlements batch has been removed consistent

Chapter	Section	Topic	Type of Change	Description
			Change	with the edits to the defined term <i>maximum daily energy limit</i> . As well, the reference to hydro <i>resources</i> is no longer needed because the detail is included in Chapter 7 section 3.5.26.1.
Chapter 11	n/a	minimum generation block down- time reference level	New	This definition was introduced in the March update to the Market Power Mitigation batch. Since this occurred after the batch received provisional <i>IESO Board</i> approval, it is presented here as a new definition.
Chapter 11	n/a	minimum generation block run-time reference level	New	This definition was introduced in the March update to the Market Power Mitigation batch. Since this occurred after the batch received provisional <i>IESO Board</i> approval, it is presented here as a new definition.
Chapter 11	n/a	minimum loading point reference level	New	This definition was introduced in the March update to the Market Power Mitigation batch. Since this occurred after the batch received provisional <i>IESO Board</i> approval, it is presented here as a new definition.
Chapter 11	n/a	non-committed resource	Modified	This existing term, which was modified in the Interim Alignment, has been further refined to correct for a typographical error.
Chapter 11	n/a	non- dispatchable generation resource	Modified	This term was introduced in the Market Power Mitigation batch and is being amended here to remove redundancy and to delete reference to transitional scheduling generators, which no longer exist.
Chapter 11	n/a	non- dispatchable load	Modified	This term was amended in the Interim Alignment batch and is further amended here to include reference to the <i>day-ahead market</i> .
Chapter 11	n/a	offer	Modified	This existing defined term was amended in the Market Power Mitigation batch and is further amended here to improve clarity and revise the cross-reference to conform to the new convention for <i>market rule</i> cross references.
Chapter 11	n/a	speed no-load offer	Modified	This term was introduced in the Market Power Mitigation batch and is refined here to improve clarity. The latest revisions are closely aligned with how existing term "speed no-load cost" is defined.
Chapter 11	n/a	stand-alone pre-dispatch operational commitment	Modified	This term was introduced in the Settlements batch and is updated here to revise the cross reference.

Chapter	Section	Topic	Type of Change	Description
Chapter 11	n/a	time lag	Modified	This term was introduced in the Market Registration and Prudentials batch and is revised here to integrate other newly defined terms.

Market Manuals – Market and System Operations

The following *market manuals* are part of the Market and System Operations batch, released on July 14, 2023:

- Market Manual 4: Market Operations, Part 4.1: Submitting Dispatch Data in the Physical Markets
- Market Manual 4: Market Operations, Part 4.2: Operation of the Day-Ahead Market
- Market Manual 4: Market Operations, Part 4.3: Operation of the Real-time Markets
- Market Manual 4: Market Operations, Part 4.5: Market Suspension and Resumption
- Market Manual 7: System Operations, Part 7.1: IESO-Controlled Grid Operating Procedures
- Market Manual 7: System Operations, Part 7.2: Near-term Assessments and Reports
- Market Manual 7: System Operations, Part 7.3: Outage Management
- Market Manual 7: System Operations, Part 7.4: IESO-Controlled Grid Operating Policies

The following *market manuals* relating to Market and System Operation will be deleted under MRP:

- Market Manual 4: Market Operations, Part 4.6: Real-Time Generation Cost Guarantee Program
- Market Manual 9: Day-Ahead Commitment Process, Part 9.0: DACP Overview
- Market Manual 9: Day-Ahead Commitment Process, Part 9.2: Submitting Operational and Market Data for the DACP
- Market Manual 9: Day-Ahead Commitment Process, Part 9.3: Operation of the DACP
- Market Manual 9: Day-Ahead Commitment Process, Part 9.4: Real-time Integration of the DACP

Market Manual 4: Market Operations

Summary of Changes to Market Manual Part 4.1: Submission of Data in the Physical Markets - July 2023

The existing *market manual* Part 4.2 has been restructured under MRP, renumbered to Part 4.1, and renamed from "Submission of Data in the Real-time Markets" to "Submission of Dispatch Data in the Physical Markets".

The content has been updated to describe the obligations and requirements for dispatch data parameters and dispatch data submission processes.

Market Manual Section	Type of	Description
	Change	
1. Introduction	Modified	This section contains the purpose of the <i>market manual</i> and <i>IESO</i> contact information.
2. Dispatch Data to Supply and Consumer Energy	Modified	Header section for <i>energy bids</i> and <i>offers</i> , equivalent to section 2.1 of Market Manual 4.2.
2.1. Dispatchable Generation and Dispatchable Electricity Storage Resource	New	This section contains an overview of dispatch data for energy submitted by dispatchable generation and dispatchable electricity storage resources.
2.1.1. Price-Quantity Pairs	Modified	This section describes the additional submission requirements and information for specific <i>resource</i> types, for during planned testing, and the revision restrictions applicable to <i>GOG-eligible resources</i> . This section originated from section 2.4.1 of Market Manual 4.2 and section 5.1.2.3 of Market Manual 9.2.
2.1.2. Start-Up Offer	Modified	This section sets out the default value for the parameter, the process pertaining to the submission of the <i>start-up offer</i> for <i>pseudo-units</i> , and includes additional instructions for submission in <i>day-ahead market</i> and submission of escalating <i>start-up offers</i> . This section originated from section 5.1.2.1 of Market Manual 9.2 and incorporated content from section 5.1.3.6 of the same manual.
2.1.3. Speed No-Load Offer	Modified	This section sets out the default value for the parameter and the process pertaining to the submission of the <i>speed no-load offer</i> for <i>pseudo-units</i> . This section originated from section 5.1.2.2 of Market Manual 9.2.
2.1.4. Energy Ramp Rate	Modified	This section sets out additional submission requirements pertaining to the submission of the <i>energy</i> ramp rates for <i>pseudo-units</i> and additional instructions on the alignment with the <i>price-quantity pairs</i> . This section originated from section 2.4.1 of Market Manual 4.2.
2.1.5. Minimum Hourly Output	New	This section sets out the default for the parameter.
2.1.6. Hourly Must-Run	New	This section sets out the default for the parameter.
2.1.7. Variable Generation Forecast Quantity	New	This section sets out the effect of a submission to the <i>registered market</i>

Market Manual Section	Type of	Description
	Change	participant and the default for the
		parameter.
2.1.8. Linked Forebays	New	This section sets out additional submission requirements for establishing <i>linked</i> forebays.
2.1.9. Forbidden Regions	Modified	This section contains additional instructions on the <i>forbidden region</i> identifier used in the submission. A reference to <i>forbidden regions</i> is contained in section 2.4.1 of Market Manual 4.2.
2.1.10. Maximum Daily Energy Limit	Modified	This section sets out the process pertaining to the submission of the <i>maximum daily energy limit</i> for <i>forebays</i> and <i>pseudo-units</i> and the default for the parameter, and includes additional requirements for submitting reason codes for the <i>maximum daily energy limit</i> . This section originated from section 2.4.1 of Market Manual 4.2.
2.1.11. Minimum Daily Energy Limit	New	This section sets out the process pertaining to the submission of the <i>minimum daily</i> energy limit for forebays and the default value for the parameter, and includes additional requirements for revisions during the dispatch day.
2.1.12. Maximum Number of Starts Per Day (MNSPD)	Modified	This section sets out the default for the parameter and the process pertaining to the submission of the MNSPD for <i>pseudo-units</i> , and includes additional requirements for the submission. This section originated from section 5.2.4 of Market Manual 9.2.
2.1.13. Minimum Loading Point	Modified	This section sets out the process pertaining to the submission of the <i>minimum loading point</i> for <i>pseudo-units</i> , and includes additional instructions for the submission including revisions to the <i>minimum loading point</i> . This section originated from section 5.2.1 of Market Manual 9.2 and has been updated to reflect the removal of the <i>minimum loading point</i> limit in the submission.
2.1.14. Minimum Generation Block Run-Time	Modified	This section sets out additional requirements for submitting the <i>minimum generation block run-time</i> for <i>pseudo-units</i> . This section originated from section 5.2.2 of Market Manual 9.2 and has been updated to reflect

Market Manual Section	Type of Change	Description
	Change	the removal of the <i>minimum generation</i> block run-time limit in the submission.
2.1.15. Minimum Generation Block Down Time	Modified	This section sets out additional requirements for submitting the <i>minimum generation block down-time</i> for <i>pseudo-units</i> . This section originated from section 5.2.3 of Market Manual 9.2.
2.1.16. Single Cycle Mode	Modified	This section sets out additional requirements for submitting the single cycle mode for <i>pseudo-units</i> . This section originated from section 5.2.5.1 of Market Manual 9.2.
2.1.17. Lead Time	New	This section sets out the process pertaining to the submission of the <i>lead time</i> for <i>pseudo-units</i> .
2.1.18. Ramp Up Energy to MLP	New	This section sets out additional requirements for submitting the <i>ramp up energy to minimum loading point</i> , including for <i>pseudo-units</i> .
2.1.19. Thermal State	New	This section sets out additional requirements for submitting the <i>thermal state</i> for <i>pseudo-units</i> .
2.2. Computed Pseudo-Unit Technical Parameters	Modified	This section contains an overview of computed <i>pseudo-units dispatch data</i> . This section originated from section 5.2.5 of Market Manual 9.2.
2.2.1. Single Cycle Mode for a Combustion Turbine of a Pseudo-Unit	Modified	This section contains additional information on the <i>single cycle mode</i> selection, including the effect, applicability, and computation of <i>single cycle mode</i> for the <i>pseudo-units</i> . This section originated from section 5.2.5.1 of Market Manual 9.2.
2.2.2. Computed Pseudo-Unit Technical Parameters	Modified	This section describes the computations for pseudo-units dispatch data. This section originated from section 5.2.5.2 of Market Manual 9.2 and has been updated to reflect the submission of daily dispatch data under MRP.
2.2.3. Computed Steam Turbine Portion of Pseudo- unit Operating Regions	Modified	This section describes the computations for steam turbine <i>generation resource</i> operating region data. This section originated from section 5.2.5.3 of Market Manual 9.2 and has been updated to reflect the submission of daily <i>dispatch data</i> under MRP.
2.3. Non-Dispatchable Generation	Modified	This section contains the additional instructions for non-dispatchable variable

Market Manual Section	Type of Change	Description
		generation resources. This section originated from section 2.2 of Market Manual 4.2.
2.4. Dispatchable Loads, Dispatchable Electricity Storage Resources, and Hourly Demand Response Resources	New	This section contains an overview for dispatch data submitted for dispatchable loads, dispatchable electricity storage resources, and hourly demand response resources.
2.4.1. Price-Quantity Pairs	Modified	This section contains additional requirements for changing the status of a dispatchable load, submitting operating reserve, and requirements pertaining to the bid price threshold for demand response resources. This section originated from section 2.4.1 of Market Manual 4.2.
2.4.2. Energy Ramp Rate	Modified	This section contains additional requirements for submitting the <i>energy</i> ramp rate for <i>hourly demand response resources</i> . This section originated from section 2.4.1 of Market Manual 4.2.
2.5. Price Responsive Loads	New	This section contains additional requirements for <i>price responsive loads bids</i> after <i>day-ahead market expiration</i> .
3. Dispatch Data to Supply Operating Reserve	Modified	Header section sets out general requirements for submitting <i>operating</i> reserve offers, equivalent to content in section 2.1 of Market Manual 4.2.
3.1. Dispatchable Generation and Dispatchable Load Resource	New	This section sets out additional requirements for submitting <i>operating reserve offers</i> for <i>pseudo-units</i> .
3.1.1. Supply Operating Reserve Price-Quantity Pairs	Modified	This section contains additional requirements for submitting <i>operating</i> reserve offers for GOG-eligible resources. This section originated from section 2.4.2 of Market Manual 4.2.
3.1.2. Operating Reserve Class	New	This section sets out the <i>operating reserve</i> classes that can be selected.
3.1.3. Operating Reserve Ramp Rate	New	This section sets out additional requirements for submitting the <i>operating reserve</i> ramp rate.
3.1.4. Reserve Loading Point	New	This section sets out additional requirements for submitting the <i>reserve loading point</i> for <i>dispatchable loads</i> , includes additional information on the effect of such submissions.

Market Manual Section	Type of	Description
	Change	•
3.2 Operating Reserve Offers for Electricity Storage Resources	Modified	This section sets out the duration requirements for <i>electricity storage resources</i> for the provision of <i>operating reserve</i> . This section originated from section 3.2 of Market Manual 4.2.
4. Dispatch Data for Boundary Entity Resources	Modified	This section sets out an overview of <i>physical transactions</i> that conducted on <i>boundary entity resources</i> . This section originated from section 2.5 of Market Manual 4.2.
4.1. Energy Import, Energy Export, and Supply Operating Reserve Transactions	New	This section contains an overview of dispatch data for boundary entity resources.
4.1.1. Boundary Entity Resource and Tie Point ID	Modified	This section sets out additional requirements for submitting dispatch data on boundary entity resources, including in respect of the boundary entity resource type, operating reserve, capacity imports, and imports via the Beauharnois boundary entity. This section originated from section 2.5.1 of Market Manual 4.2.
4.1.2. Interjurisdictional	New	This section sets out additional requirements
Capacity Transactions		for interjurisdictional capacity transactions.
4.1.3. e-Tags	Modified	This section sets out requirements for submitting e-Tags. This section originated from section 2.5.3 of Market Manual 4.2.
4.1.4. Operating Reserve Class	New	This section sets out the classes of <i>operating</i> reserve that may be submitted for <i>boundary</i> entity resources.
4.2 Linked Wheeling Through Transactions	Modified	This section contains an overview of <i>linked wheeling through transactions</i> . This section originated from section 2.5.4 of Market Manual 4.2.
4.2.1. Linked Wheeling Through Transactions as Independent Import and Export	Modified	This section sets out additional requirements for submitting <i>linked wheeling through transactions</i> as independent transactions. The content originated from section 2.5.4 of Market Manual 4.2.
4.2.2. Linked Wheeling Through Transactions as Linked Import and Export	Modified	This section sets out additional requirements for submitting <i>linked wheeling through transactions</i> as linked transactions. The content originated from section 2.5.4 of Market Manual 4.2.
4.3. Capacity Exports	Modified	This section sets out the eligibility requirements for <i>capacity exports</i> .

Market Manual Section	Type of	Description
	Change	
4.3.1. Dispatch Data Requirements for Scheduling a Called Capacity Export	Modified	This section sets out the <i>dispatch data</i> requirements for a <i>called capacity export</i> . This section originated from section 2.6.1 of Market Manual 4.2.
4.3.2. Changes/Updates to Called Capacity Exports or Capacity Resources	Modified	This section sets out the communication requirements when conducting <i>called capacity exports</i> . This section originated from section 2.6.2 of Market Manual 4.2.
4.4. Validation of Bids and Offers for Imports and Exports	Modified	This section was updated with references to the applicable <i>market rules</i> . This section originated from section 2.5.5 of Market Manual 4.2.
4.4.1. Requirements for Bids and Offers	Modified	This section sets out the process for validating <i>dispatch data</i> for <i>boundary entity resources</i> . The content originated from section 2.5.5 of Market Manual 4.2.
4.4.2. Validation Process	Modified	This section sets out the timing for validating dispatch data for boundary entity resources and the outcome from the validation. The content originated from section 2.5.5 of Market Manual 4.2.
5. Dispatch Data for Virtual Transactions	New	This section contains additional requirements for submitting <i>dispatch data</i> for <i>virtual zonal resources</i> , including details of the calculation used in validating <i>dispatch data</i> for prudentials.
6. Standing Dispatch Data	Modified	This section contains an overview of standing <i>dispatch data</i> . This section originated from section 2.4.5 of Market Manual 4.2.
6.1. Submitting Standing Dispatch Data	New	This section contains additional requirements for submitting standing dispatch data.
6.1.1. Procedure for Submitting and Revising Standing Dispatch Data	New	This section describes the process for the submission of <i>standing dispatch data</i> .
7. Submitting Dispatch Data	New	This section contains an overview on the process for submitting <i>dispatch data</i> , and the submission timelines for daily and hourly <i>dispatch data</i> .
7.1. Dispatch Data Submissions by Resource Type	Modified	This section sets out the <i>dispatch data</i> submitted by each <i>resource</i> type, and the applicable timelines. This section originated from section 2.3 of Market Manual 4.2.

Market Manual Section	Type of	Description
7.2 Discolub D. :	Change	This could be a facility of the state of the
7.2. Dispatch Data Submissions or Revisions for the Day-Ahead Market	New	This section sets out additional requirements for submitting <i>dispatch data</i> into the <i>day-ahead market</i> .
7.2.1. Dispatch Data Submission or Revisions During the Day-Ahead Market Submission Window	Modified	This section outlines the process for submitting <i>dispatch data</i> during the <i>day-ahead market submission window</i> . This section originated from section 5.1.9 of Market Manual 9.2.
7.2.2. Dispatch Data Submission or Revisions During the Day-Ahead Market Restricted Window	Modified	This section sets out additional requirements for submitting dispatch data during the dayahead market restricted window. This section originated from section 5.5 of Market Manual 9.2.
7.3. Dispatch Data Submissions or Revisions for the Real-Time Market	New	This section sets out additional requirements for submitting <i>dispatch data</i> during the <i>real-time market</i> .
7.3.1. Hourly Dispatch Data Submissions or Revisions during the Unrestricted Window	Modified	This section sets out additional requirements and outlines the process for <i>registered market participants</i> for <i>GOG-eligible resources</i> to submit <i>dispatch data</i> during the <i>real-time market unrestricted window</i> . This section originated from section 2.3.3 of Market Manual 4.2.
7.3.2. Hourly Dispatch Data Submissions or Revisions during the Real-Time Market Mandatory Window	Modified	This section sets out additional requirements and outlines the process for <i>registered market participants</i> for <i>hourly demand response resources</i> to submit <i>dispatch data</i> during the <i>real-time market mandatory window</i> . This section originated from section 2.3.4 of Market Manual 4.2.
7.3.3. Daily Dispatch Data Submissions or Revisions during the Real-Time Market Restricted Window	New	This section sets out additional requirements and outlines the process for <i>registered</i> market participants to submit daily dispatch data during the real-time market restricted window.
7.4 Alternate Means of Submitting or Revising Dispatch Data during a Tool Failure	Modified	This section describes the <i>IESO's</i> process for receiving <i>dispatch data</i> during a tool failure. The content originated from Appendix C.1 of Market Manual 4.2 and section 5.5 of Market Manual 9.2.
7.4.1. Overriding Concerns/Principles for a Tool Failure	Modified	This section contains the overriding concerns and principles for a tool failure. This section originated from Appendix C.2 of Market Manual 4.2.
7.4.2. IESO Actions During Tool Failure	Modified	This section contains additional information on the actions that may be taken by the

Market Manual Section	Type of Change	Description
	Change	IESO during a tool failure. This section originated from Appendix C.4 of Market Manual 4.2.
7.4.3. Dispatch Data Submissions and Revisions by Telephone	Modified	This section outlines the process and sets out additional requirements for submitting dispatch data via telephone during a tool failure. The content originated from Appendix C.3 of Market Manual 4.2 and section 5.5.3 of Market Manual 9.2.
7.4.4. Dispatch Data Submissions and Revisions by Email	Modified	This section outlines the process and sets out additional requirements for submitting dispatch data via e-mail during a tool failure. The content originated from Appendix C.3.1 of Market Manual 4.2 and section 5.5.3 of Market Manual 9.2.
7.5. Availability Declaration Envelope	Modified	This section was updated with reference to the applicable <i>market rules</i> . This section originated from section 4.5.5 of Market Manual 9.4.
7.5.1. Enforcement of the Availability Declaration Envelope (ADE)	Modified	This section contains additional requirements for submitting dispatch data that expands the availability declaration envelope and the enforcement of the availability declaration envelope. This section originated from section 4.5.5.2 of Market Manual 9.4.
7.5.2. Dispatch Data Submissions or Revisions that Expand the Availability Declaration Envelope (ADE)	New	This section outlines the process and additional requirements for submitting dispatch data that expand the availability declaration envelope.
8. Accessing Submitted Dispatch Data	New	Header section for accessing submitted dispatch data.
8.1. Dispatch Data Reports	New	This section contains a list of the reports related to <i>dispatch data</i> .
8.2. Retrieval of Submitted Dispatch Data	Modified	This section sets out the process for retrieving <i>dispatch data</i> submitted to the <i>IESO</i> . This section originated from section 5.1.6 of Market Manual 9.4.
9. Replacement Energy Offers Program	Modified	This section sets out additional requirements relating to the replacement <i>energy offer</i> program. This section originated from section 2.3.2 of Market Manual 4.2.
10. Requests for Segregated Mode of Operation	Modified	This section sets out additional requirements relating to <i>segregated mode of operation</i> requests. This section originated from section 2.7 of Market Manual 4.2.

Market Manual Section	Type of Change	Description
10.1. Segregated Mode of Operation Inadvertent Accounting	Modified	This section sets out additional requirements relating to inadvertent accounting. This section originated from section 2.7.1 of Market Manual 4.2.
11. Submitting Regulation Offers	Modified	This section outlines the process and sets out additional requirements for submitting <i>regulation offers</i> . This section originated from section 5.4 of Market Manual 9.2.
Appendix A: Content of Dispatch Data	Modified	This section contains additional information on the requirements that <i>registered market participants</i> must follow when submitting <i>dispatch data</i> . This section originated from Appendix A of Market Manual 4.2.
Appendix B: Dispatch Data Submission and Revision Reasons and Reason Codes	New	This section sets out additional requirements for revising <i>dispatch data</i> , including with respect the submission of reason codes. Part of the content in the appendix related to short notice submissions originated from Appendix B of Market Manual 4.2.
Appendix C: Boundary Entity Resources	Modified	This section contains additional information related to the submission of <i>dispatch data</i> on <i>boundary entity resources</i> . This section originated from Appendix E of Market Manual 4.2.
Appendix D: Ontario Specific e-Tag Requirements	Modified	This section sets out the requirements for the submission of e-Tags. This section originated from Appendix F of Market Manual 4.2.
Appendix E: Virtual Transaction Zonal Trading Entity Resource	New	This section contains additional information related to the submission of <i>dispatch data</i> on <i>virtual zonal resources</i> .
Appendix F: Submission of Dispatch Data in the IESO Tools	New	This section contains additional information on how the <i>IESO</i> tool processes <i>dispatch data</i> submissions and functions to support the submission process.

Summary of Changes to Market Manual Part 4.2: Operation of the Day-Ahead Market - July 2023

The existing *market manual* Part 9.3 has been restructured under MRP, renumbered to Part 4.2, and renamed from "Operation of the DACP" to "Operations of the Day-Ahead Market".

The content has been updated to describes the timing and inputs into the day-ahead market as well as day-ahead market results and outcomes.

Market Manual Section	Type of	Description
21/2	Change	T. (() () () () () () ()
N/A	New	This <i>market manual</i> outlines the timing, inputs, process and results of the <i>day-ahead market</i> .
1. Introduction	New	This section contains the purpose of the <i>market manual</i> and <i>IESO</i> contact information.
2. Operation of the Day- Ahead Market	New	This section describes the timing of <i>IESO</i> and <i>market participant</i> activities related to the <i>day-ahead market</i> process, and initializing conditions of the <i>day-ahead market calculation engine</i> .
3. Day-Ahead Market Data Inputs	New	This section describes <i>IESO</i> and <i>market</i> participant inputs into the day-ahead market calculation engine.
4. Day-Ahead Market Scheduling Process	New	This section describes the validation process used by the <i>IESO</i> to establish <i>day-ahead market</i> results. It also describes the criteria and process to rerun or delay the <i>day-ahead market calculation engine</i> , or declare a failure of the <i>day-ahead market</i> .
5. Day-Ahead Reliability Commitments for GOG- Eligible Resources	New	This section describes the principles and process used by the <i>IESO</i> to establish dayahead <i>reliability</i> commitments.
6. Results from the Day- Ahead Market	New	This section describes the scheduling and pricing results from the <i>day-ahead market</i> . It also describes <i>day-ahead operational commitments</i> and constraint coding for <i>GOG-eligible resources</i> .
7. Publishing and Issuing Day-Ahead Market Results	New	This section describes the public and <i>market</i> participant confidential reports produced as part of the day-ahead market process. This includes reports that will provide market participants to inform participation in the day-ahead market as well as the scheduling and pricing outcomes. This section also describes the advisory notices and standby notices for hourly demand response resources related to the day-ahead market.
8. Decommitment and Withdrawal of Day-Ahead Operational Commitments	New	This section describes the process and sets the additional requirements for <i>market participants</i> to withdraw a <i>day-ahead operational commitment</i> , and for the <i>IESO</i> to cancel a <i>day-ahead operational commitment</i> .

Market Manual Section	Type of Change	Description
9. Day-Ahead Market Remediation	New	This section sets out additional requirements relating to market remediation for the <i>day-ahead market</i> . It also describes the actions taken by the <i>IESO</i> in the event that market remediation is required.
Appendix A: Day-Ahead Market Calculation Engine	New	This section provides an overview of the day-ahead market calculation engine.
Appendix B: Detailed IHO Calculation	New	This section describes the process to determine the initial hour of operation (IHO) that is used by the <i>day-ahead market</i> calculation engine, which is used to facilitate the scheduling of <i>resources</i> over midnight.
Appendix C: Constraint Violation Penalty Curve	New	This section describes the penalty functions for the violation of constraints in the <i>day-ahead market calculation engine</i> . It lists the penalty functions used in the scheduling and pricing results produced by the <i>day-ahead market calculation engine</i> .

Summary of Changes to Market Manual Part 4.3: Real-Time Scheduling of the Physical Markets - July 2023

The existing *market manual* Part 4.3 has been restructured under MRP and renamed from "Real-time Scheduling of the Physical Markets" to "Operations of the Real-time Markets" to reflect its applicability to scheduling and pricing of the real-time market timeframes.

The content has been updated to describe the timing and inputs into the pre-dispatch process and real-time markets as well as results.

Market Manual Section	Type of Change	Description
1. Introduction	New	This section contains the purpose of the <i>market manual</i> and <i>IESO</i> contact information.
2. The Pre-Dispatch Scheduling Process	New	Information regarding pre-dispatch was previously included in Market Manual 4.2. This section outlines <i>the pre-dispatch process</i> , including its timelines, inputs, optimization, results, and outputs.
3. The Real-Time Scheduling Process	Modified	Sections 3 to 5 from the existing <i>market manual</i> have been reorganized into section 3. This describes the real-time scheduling process, including its timelines, inputs, optimization, results, and outputs.

Market Manual Section	Type of	Description
	Change	- Company
4. Determining Dispatch Instructions	Modified	This section describes the process of determining various <i>dispatch instructions</i> to be sent to <i>market participants</i> . Moved existing <i>market manual</i> section 6 to this section 4.
4.1. Dispatchable Generation Resources, Dispatchable Loads and Dispatchable Storage Resources	Modified	Removed redundant <i>market rules</i> material from this section. Added additional information regarding <i>pseudo-unit dispatches</i> .
4.2. Boundary Entity Resources	Modified	Removed redundant <i>market rules</i> material from this section.
4.3. Interchange Scheduling Protocol	Modified	This section describes the different interchange protocols between the <i>IESO</i> and external <i>reliability</i> co-ordinators.
4.3.1. IESO/NYISO Protocol: NY90	Modified	Added detail in the <i>day-ahead market</i> timeline.
4.3.1.1. Curtailed and Failed Interchange Schedules	Modified	Deleted requirements regarding transaction coding, which are included in table 4-1 and 4-2 in section 4.5.
4.3.2 MISO Protocol: MISO Protocol		Editorial changes were made to improve readability.
4.3.3. Hydro-Quebec: Bilateral Capacity Agreements	Deleted	Removed the winter period of the agreement. Reworded summer period to improve readability.
4.4. Pre-Emptive Curtailments	Modified	Editorial changes to improve readability.
4.5.1. Modifying Interchange Schedule	Modified	Deleted former principle 2, 4, 5 and 6 governing the modification of <i>interchange schedules</i> . Added section 4.5.1.1 which sets out requirements for coding adjustments and curtailments to <i>intertie schedules</i> . Streamlined Table 5-2 (previously 6-1).
4.5.2. Methodology for Assigning Failure Codes	Modified	Removed redundant material with table 4-1. Editorial changes were made to improve readability.
4.6.1. Capacity Export Delivery	Modified	Editorial changes were made to improve readability.
4.6.2. Curtailment Provisions		Editorial changes were made to improve readability.
4.7. Capacity Import Scheduling	Modified	Editorial changes were made to improve readability. Reference change.
4.7.1. Capacity Import Call for Generator-Backed Capacity Import Resources		Editorial changes were made to improve readability.

Market Manual Section	Type of	Description
E Issuing Dispatch	Change	This section describes the process of issuing
5 Issuing Dispatch Instructions and Operational Notices		This section describes the process of issuing dispatch instructions to market participants. Moved existing market manual section 7 to this section 5.
5.1. Dispatchable Generation Resources, Dispatchable Loads or Dispatchable Storage Resources	Modified	Editorial changes were made to improve readability.
5.2. Hourly Demand Response Resources	Modified	Sets out additional requirements and the process for issuing activation notices for hourly demand response resources. Removed redundant market rules material from this section. Also removed redundant market manual material from section 5 of the existing Market Manual 4.3.
5.3. Boundary Entities	Modified	Removed the requirement for the linked wheeling <i>interchange schedule</i> cancellation minimum price of -\$50 from step 9 of table 6-4. Editorial changes were made to improve readability.
5.4. Dispatch of Operating Reserve (Operating Reserve Activation)	Modified	Sets out additional requirements for operating reserve activations on pseudo-units and boundary entity resources. Editorial changes were made to improve readability.
5.5. Manual Procurement of Operating Reserve during Forced or Planned Tools Outages	Modified	Editorial changes were made to improve readability.
5.6. Resource Commitment Notices	New	New section setting out the process and additional requirement for notices issued in regards to operational and <i>reliability commitments</i> (e.g., <i>start-up notices</i> , commitment extensions, and decommitment notices).
5.7. Compliance with Dispatch Instructions	Modified	Editorial changes were made to improve readability.
5.8. Compliance Aggregation	New	Editorial changes were made to improve readability. Moved existing <i>market manual</i> section 10 to this section 5.8.
5.9 Withdraw from Commitment	New	New section on <i>market participant</i> withdrawal from pre-dispatch or <i>day-ahead operational commitments</i> .
5.10. IESO Cancellation of Commitment for Generator	New	New section setting out the circumstances of the <i>IESO</i> cancelling <i>GOG-eligible resources</i> operational commitments for <i>reliability</i> .

Market Manual Section	Type of Change	Description
Offer Guarantee Eligible Resources		
5.11 Pre-Dispatch Operational Commitment Cancellation Cost Recovery	New	Sets out additional information on financial consequences of cancelling <i>pre-dispatch</i> operational commitments.
6. Publishing and Issuing Predispatch and Real-Time Reports	New	This section describes the public and <i>market participant</i> confidential reports produced as part of the <i>real-time market</i> processes. This includes reports that will provide <i>market participants</i> with information regarding scheduling and pricing outcomes.
7. Real-Time Market Remediation	New	Sets out additional requirements for market remediation in the <i>real-time market</i> .
Appendix A: Constraint Violation Penalty Curves	New	New appendix section providing details on penalty price curves used in the various algorithms of the engine optimization.
Appendix B: Coding of Commitments and Constraints	New	New appendix section providing details on different constraint codes applicable to operational commitments.

Summary of Changes to Market Manual Part 4.5: Market Suspension and Resumption - July 2023

The existing *market manual* Part 4.5 has been updated to describe IESO obligations surrounding the declaration of a market suspension, operation during market suspension, and resumption of normal market activities.

Market Manual Section	Type of Change	Description
2. Market Suspension	Modified	Updated to include reference to the <i>day-ahead market</i> operation during <i>market</i> suspension and clarification that a <i>day-ahead market</i> failure does not constitute a <i>market suspension</i> .
2.2. Operations during Market Suspension	Modified	Updated to indicate that the <i>day-ahead market</i> schedules will be followed to the extent possible during <i>market suspension</i>
2.2.3. Administrative Pricing	Modified	Renamed section to Administrative Pricing. Updated to reflect reference to new <i>market</i> rule sections for administrative pricing, MR Ch.7 s. 8.4A.6.
2.5. Compensation	Removal	Removed Section 2.5 detailing compensation to <i>market participants</i> as these details are

Market Manual Section	Type of Change	Description
		included in MR Ch. 7 s. 8.4A.9 and MR Ch. 7 s. 8.4A.10.
3.1. Market Resumption Advisory Notices	Modified	Updated to include reference to the timeline for the resumption of normal operations of the <i>day-ahead market</i> .
		Updated to refer to MM 4.1: Submitting Dispatch Data in the Physical Markets, Appendix B: Short Notice Change Criteria instead of MM 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets, Appendix B: Short Notice Change Criteria).
3.2.1. Preliminary and Final Market Suspension Reports, 3.2.2. Implementing Corrective Measures	Modified	Merged previous sections 3.2.1 Preliminary Market Suspension Report and 3.2.2: Final Market Suspension Report.
3.2.4. Compensation for Corrective Actions	Removal	Removed Section 3.2.4 detailing <i>market</i> participant compensation during <i>market</i> suspension.
Appendix and References	Modified	Removed Appendix on Administrative Pricing.
		Added reference to MM 4.2: Operation of the Day Ahead Market and removed hyperlink to Administrative Pricing Quick Take.

Market Manual 7: System Operations

Summary of Changes to Market Manual Part 7.1: IESO-Controlled Grid Operating Procedures - July 2023

The existing *market manual* Part 7.1 has been updated to describes the changes to synchronization/desynchronization of GOG-Eligible resources and pseudo units, SBG procedures, and the EOSCA list.

Market Manual Section	Type of Change	Description
4.2.2.2. Synchronization / Desynchronization of GOG- eligible Resources	New	Synchronization process depends on receipt of a <i>start-up notice</i> from pre-dispatch. Desynchronization process depends on receipt of notice of decommitment from pre-dispatch.

Market Manual Section	Type of Change	Description
4.2.2.3. Synchronization / Desynchronization of GOG-eligible Pseudo-Units	New	Added synchronization and desynchronization processes for <i>pseudo-units</i> that are operating in combined cycle mode, including the process for associated steam turbine units.
Section 10. Grid Control Actions: Nuclear Manoeuvres Forecasted or Occurring	Modified	Relocated section 10 from Market Manual 7.3. Added Incremental Transactions beyond T+2 as a control action. This will be implemented when there are reductions forecast in the pre-dispatch time frame.
Appendix B1: Emergency Operating State Control Actions	Modified	Included 3% and 5% voltage reductions as operating reserve due to the removal of control action operating reserve from the market. Added constraining on non-quick start resources as per pre-dispatch results, including Incremental Transactions beyond T+2.

Summary of Changes to Market Manual Part 7.2: Near-Term Assessments and Reports - July 2023

The existing *market manual* Part 7.2 has been updated to describe the changes to reporting timelines and consideration in adequacy assessments.

Market Manual Section	Type of Change	Description
Section 1.1: Purpose	Modified	Added Ontario Near-Term Demand Forecast Report (Day 0 to 10) for the Northeast,
		Northwest, Southeast and Southwest demand
		forecast areas. Added Ontario Mid-Term
		Demand Forecast Report (Day 11 to 34) for
		the legacy East and West demand zones.
Section 2: Market Participant	Modified	Updated timing for submission of data by
Data Submission Instructions		market participants based on MRP timing.
Section 3: Adequacy,	Modified	Changed daily <i>publication</i> times for <i>adequacy</i>
Demand Forecast, and		reports to be in Eastern Prevailing Time (EPT)
Transmission Limits Reports		
Section 5: Control Action	Deleted	Removed control action <i>operating reserve</i>
Operating Reserve		(CAOR) from the real time (RT) sequence.
Appendix A (formerly	Modified	Included Incremental Transitions in this
Appendix B: Method to		section regarding the assessment method.
Assess Generation and		
Transmission Adequacy		

Summary of Changes to Market Manual Part 7.3: Outage Management - July 2023

The existing *market manual* Part 7.3 has been updated to describes the changes to the outage submission timelines and requirements.

Market Manual Section	Type of Change	Description
Section 3: Outage Management Information	Modified	Added requests for <i>segregated mode of operations</i> as an example of opportunity <i>outages</i> .
Section 3.7.5: One day Advance Approval	Modified	Modified study period for <i>one-day advance approval</i> process to accommodate new <i>day-ahead market</i> timing. The study period for the <i>one-day advance approval</i> process was modified to end at 07:59:59 EST one <i>business day</i> prior to the coverage period.
Table 3-7: Outage Submission and IESO Review Timeline	Modified	Updated the timelines for <i>one-day advance</i> approval outages.
Section 5: Generation Facilities and Electricity Storage (pseudo units)	New	Added, for <i>pseudo units</i> , requirements to submit <i>outages</i> /de-rates for both gas turbine and associated steam turbine units ensure the <i>dispatch</i> scheduling and optimization correctly calculates <i>energy</i> and capacity.
Section 5.1.4: Segregated Mode of Operation	New	Added the requirement to apply for segregated mode of operations in the dayahead market time frame for situations where critical elements are operated.

Summary of Changes to Market Manual Part 7.4: IESO-Controlled Grid Operating Policies - July 2023

Market Manual Section	Type of Change	Description
All	Modified	Replaced "facility" with "resource". No substantive changes related to MRP – this market manual has been updated to eliminate duplication of existing content between the market manuals and market
		rules.