

MRP Implementation: Summary of Market Settlements, Metering, and Market Billing and Funds Administration

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 draft provisional changes in 'batches'. This document describes the provisional changes in the Market Settlements, Metering and Market Billing and Funds Administration batch.

Market Settlements, Metering, and Market Billing and Funds Administration Changes

Changes to Market Rules

Chapter 6 – Wholesale Metering

Amendments to Chapter 6 of the *market rules* are minor in nature, and include consequential edits to include references to the *day-ahead market*.

Chapter 7 – Hydroelectric Resources – Facility Registration

Optional facility registration parameters for hydroelectric resources were introduced with the first batch of MRP *market rule amendments*. Changes to the parameters specified in MR Ch.7, s. 2.2.6A are specified in the summary of *market rule* changes table below.

Chapter 8 – Physical Bilateral Contracts and Financial Markets

Amendments to Chapter 8 of the *market rules* include consequential amendments to *physical bilateral contracts* and the *transmission rights market* provisions required as a result of the introduction of a *day-ahead market*

Chapter 9 and Chapter 9 Appendices – Settlements and Billing

Amendments to the body of Chapter 9 of the *market rules* are extensive, and include rewrites of section 3 – Hourly Settlement Amounts and section 4 – Non-Hourly Settlement Amounts. A new section 5 – Market Power Mitigation – Settlements has also been added to Chapter 9 which specifies the *settlement* mitigation process applicable to specific *settlement amounts* and adding new *settlement amounts* related to market power mitigation processes.

Amendments to section 1 – Introductory Rules, section 2 – Settlement Data Collection and Management, section 6 Settlement Statements are relatively minor in nature.

Amendments to the Chapter 9 Appendices include:

- Appendix 9.1 – VEE Process – minor edits;
- Appendix 9.2 NEW – Data Inputs and Variables: define the variable, subscripts and superscripts for the purposes of Chapter 9 and its Appendices;
- Appendix 9.3 NEW – Pseudo Unit Translation: define the variables and specify the formulations for *pseudo-unit* translation;
- Appendix 9.4 NEW – Settlement Mitigation: define the variables and methodology for *settlements* mitigation in the *day-ahead market* and *real-time market*.

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 Settlements, Metering, and Market Billing and Funds Administration. Some existing definitions were modified to align with the MRP market design. Some existing definitions were deleted as they were associated with procedures that are being superseded by the new Market Settlements, Metering, and Market Billing and Funds Administration procedures.

Summary of Market Rule Changes: December 2022

Chapter	Section	Topic	Type of Change	Description
Chapter 6	1	Introduction	Modified	Section 1.2.1 - inserted " <i>day-ahead market</i> ".
Chapter 6	2	Requirements for Metering Installations	Modified	Section 2.1.1 - inserted " <i>day-ahead market</i> ".
Chapter 6	6	Registration of Metering Installations and Metering Registry	Modified	Sections 6.1.1 and 6.1.1A - inserted " <i>day-ahead market</i> ".
Chapter 6	10	Processing of Metering Data for Settlement Purposes	Modified	Modified the following: <ul style="list-style-type: none"> • Section 10.3.1 - deleted 'subject to section 10.3.2'; • Section 10.3.2 – as a matter of clean-up, deleted this section which allows for <i>metering data</i> for legacy <i>metering installations</i> to be collated to 5 or 15 minute intervals. This section no longer applies as all legacy <i>metering installations</i> have been replaced.
Chapter 6 Appendix 6.2	1.1A.1.5, 1.1A.1.4, 1.5.1.5	Alternative Metering Installation Standards	Modified	Modified the following: <ul style="list-style-type: none"> • Section 1.1A.1.4 - deleted 'subject to section 1.1A.1.5'; • Section 1.1A.1.5 and 1.5.1.5 – as a matter of clean-up, deleted this section which allows for <i>metering data</i> for legacy <i>metering installations</i>

Chapter	Section	Topic	Type of Change	Description
				to be collated to 5 or 15 minute intervals. This section no longer applies as all legacy <i>metering installations</i> have been replaced.
Chapter 7	2.2.6A	Hydroelectric Generation Resources – Facility Registration	Modified	<p>Section 2.2.6A specifies optional resource-specific information that hydroelectric <i>generation resources</i> may submit during the <i>facility registration</i> process. An optional <i>start indication value</i>, <i>shared daily energy limits</i>, and <i>time lag</i> were introduced as part of the first batch of MRP <i>market rule amendments</i>.</p> <p>The following changes are proposed:</p> <ul style="list-style-type: none"> • Section 2.2.6A.2: a <i>start indication value</i> – delete “MW values for each <i>resource</i> that is associated with a <i>dispatchable hydroelectric generation resource</i>” and replace with “start indication values not exceeding the number of <i>generation units</i> associated with the <i>resource</i>”; • Section 2.2.6A.4: <i>shared daily energy limits</i> – replace with the defined term “<i>forebay</i>”; • Section 2.2.6A.5 – <i>time lag</i> – insert “one or more <i>time lags</i> applicable to the <i>resource’s forebay</i>”.
Chapter 8	Throughout	General Changes Throughout Chapter 8	Modified	<p>The following changes have been made throughout Chapter 8:</p> <ul style="list-style-type: none"> • Deleted all instances of “intentionally left blank – section deleted” for clean-up; • renumbered section/subsections and updated cross-references accordingly; • replaced acronym “<i>RWM</i>” with “<i>registered wholesale meter</i>”; <p>Deleted acronym “<i>TRs</i>”.</p>
Chapter 8	1.1	Introductory Rules	Modified	Italicized “ <i>physical bilateral contract</i> ” and “ <i>market participant</i> ”.
Chapter 8	2.1	Physical Bilateral Contract Data and Quantities	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 2.1.1 - deleted reference to “<i>real-time markets</i>” and left reference to “<i>physical markets</i>”, which is inclusive of the <i>real-time market</i> and the <i>day-ahead market</i>; • deleted “regulations” – defined term “<i>applicable law</i>” includes “regulations”, and is thus redundant; • New section 2.1.2 – moved provision from existing MR Ch. 9, s. 3.1.7 which specifies the

Chapter	Section	Topic	Type of Change	Description
				<p><i>IESO</i> will offer a <i>physical bilateral contract</i> service to <i>market participants</i> to new section 2.1.2 – no changes made to the existing clause – relocation only;</p> <p>Section 2.1.3, 2.1.3.1:</p> <ul style="list-style-type: none"> • Inserted “in respect of the <i>day-ahead market</i> and/or the <i>real-time market</i>” in several instances to clarify applicability of <i>physical bilateral contract data</i>; • Replaced “each hour” with the defined term “<i>settlement hour</i>”; • Section 2.1.3.2 – inserted “for the <i>physical bilateral contract data</i> submitted in respect of the <i>real-time market</i>” and “of the relevant <i>trading day</i>”; • Section 2.1.3.2a – replaced “<i>hourly Ontario energy price</i>” with “<i>day-ahead market zonal price for energy</i>”; made this section applicable to both buying <i>market participant</i> and selling <i>market participant</i> to reduce redundancy of language in existing section 2.1.2.2b; • Section 2.1.3.2b and c – replaced “5-minute <i>energy market price</i>” with “applicable <i>locational marginal price of energy</i> in the <i>real-time market</i>”; replaced “<i>facility</i>” with “<i>resource</i>”; <p>2.1.3.4 – various, minor wording changes.</p>
Chapter 8	2.2	The Content of Physical Bilateral Contract Data	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Inserted “Physical” in title heading; • Section 2.2.1 - inserted “in respect of the <i>day-ahead market</i> and/or the <i>real-time market</i>” in several instances to clarify applicability of <i>physical bilateral contract data</i>; • Section 2.2.1.1 – added “is either” and “or a specified <i>intertie metering point</i>”. • Section 2.2.1.2 - inserted “in the context of <i>physical bilateral contract data</i> submitted in respect to the <i>day-ahead market</i>, does not relate to a <i>non-dispatchable load</i>”. <p>Section 2.2.2 – italicized “<i>hourly uplift</i>”; added further procedural details for a <i>selling market participant</i> and cross reference to the “applicable market manual”; consequential deletion of section 2.2.3.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 8	2.3	The Form of Physical Bilateral Contract Data	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Inserted "Physical" in title heading; • Replaced "hour" with defined term "<i>settlement hour</i>" throughout; • Section 2.3.1.1a – added clarity by adding "is a specified <i>delivery point</i> associated with" a <i>registered wholesale meter</i>; • Section 2.3.2 – added additional detail for a <i>selling market participant</i> submitting <i>physical bilateral contract data</i> in respect of the <i>real-time market</i>, as well as the <i>day-ahead market</i>; <p>Section 2.3.3 - inserted "in respect of the <i>real-time market</i> and/or the <i>day-ahead market</i>".</p>
Chapter 8	2.4	Submitting and Revising Physical Bilateral Contract Data	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • replaced "<i>dispatch day</i>" with "<i>trading day</i>" throughout; • Section 2.4.1.1 – inserted "and no later than six <i>business days</i> after that <i>trading day</i>" – six <i>business day</i> timeline taken from former section 2.4.11.3 and consolidated into 2.4.1.1; • Section 2.4.1.2 – deleted unnecessary/redundant wording "on the same schedule and" and "for that <i>dispatch day</i>"; • Section 2.4.2.1, 2.4.2.4 – replaced "dispatch hour" with "settlement hour"; inserted "and specify whether it is in respect of the <i>real-time market</i> and/or the <i>day-ahead market</i>"; • Section 2.4.3 - provided clarification where <i>physical bilateral contract data</i> pertains to the same <i>buying market participant</i> at the same location and also added that it is "for the same <i>physical market for energy</i>".
Chapter 8	3, 3.1 to 3.3	The Transmission Rights Market	No Change	No substantive changes.
Chapter 8	3.4	Payments to TR Holders Under Transmission Rights	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Replaced "hour" with the defined term "<i>settlement hour</i>" throughout; • Section 3.4.1 – inserted a cross reference to MR Ch.9, s.3.8.1 which specifies the calculation of the amount owing by the <i>IESO</i> in respect of a <i>transmission right</i> for each applicable <i>TR holder</i>. With the cross reference, the calculation methodology of previous sections 4.4.1.1 and 4.4.1.2 are redundant and no longer required;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 3.4.2 – inserted “determined for the <i>day-ahead market</i>” – the calculation in MR Ch.9, s. 3.8.1 uses the <i>day-ahead market</i> external congestion price for <i>energy</i>; simplified this section by deleting previous sections 4.4.2.1 and 4.4.2.2 and specifying that the amount owing by the <i>IESO</i> in the conditions specified in this section shall be “zero”; Added new section 3.4.3 to address the scenario where the <i>IESO</i> suspends the <i>day-ahead market</i> .
Chapter 8	3.5	Allocation of Transmission Rights	No Change	No substantive changes.
Chapter 8	3.6	Simultaneous Feasibility	Modified	Added clarifying language to section 3.6.1 and inserted “as further described in the applicable market manual” – the market manual will provide further information on the simultaneous feasibility test.
Chapter 8	3.7	Determination of Transmission Transfer Capabilities	Modified	Section 3.7.1 – replaced “congestion rents” with “ <i>day-ahead market external congestion rent</i> ”.
Chapter 8	3.8	Participation in TR Markets and Rules Applicable to TR Participants	No Change	No substantive changes.
Chapter 8	3.9	Assignment of Transmission Rights	No Change	No substantive changes.
Chapter 8	3.10	Short-Term Auctions	Modified	As a matter of clean-up, deleted section 3.10.3 which references the first <i>short-term auction</i> conducted by the <i>IESO</i> after the <i>market commencement date</i> .
Chapter 8	3.11	Long-Term Auctions	Modified	Modified the following: <ul style="list-style-type: none"> Section 3.11.1, current section 4.11.7, section 3.11.6 - as a matter of clean-up, deleted references to the first/first three/fourth and subsequent <i>long-term auction(s)</i> (after the <i>market commencement date</i>); Section 4.11.9 – consequential clean-up/deletion with deletion of current section 4.11.7.

Chapter	Section	Topic	Type of Change	Description
Chapter 8	3.12	Pre-auction Publication	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Replaced "<i>market commencement date</i>" with "MRP commencement date" throughout; • Section 3.12.1.1 – replaced the <i>IESO</i> requirement to <i>publish</i> "hourly prices determined on the basis of the last projected <i>market price</i> for <i>energy</i> for that hour" with "the DAM_PEC_h and <i>day-ahead market locational marginal price</i> of <i>energy</i>" for each <i>TR zone</i> for "each <i>settlement hour</i>"; • Section 3.12.1.3 – replaced the <i>IESO</i> requirement to <i>publish</i> "actual and scheduled hourly flows" over each interconnection with "<i>energy</i> scheduled for injection or withdrawal in the <i>day-ahead market</i>"; <p>Section 3.12.1.4 – updated to reflect that the hourly <i>transmission transfer capability</i> is used in the <i>DAM calculation engine</i> and deleted, "or from such earlier period as such information may be available provided that such information need not cover a period in excess of twelve months".</p>
Chapter 8	3.13	TR Bids and TR Offers	No Change	No substantive changes.
Chapter 8	3.14	Bidding Limits	No Change	No substantive changes.
Chapter 8	3.15	TR Market Clearing Prices	No Change	No substantive changes.
Chapter 8	3.16	Post-Auction Notification and Publication	Modified	Italicized " <i>business day</i> ".
Chapter 8	3.17	Payment for Purchase/Sale of Transmission Rights	No Change	No substantive changes.
Chapter 8	3.18	TR Clearing Account	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 3.18.1.1 - replaced "net congestion rents" with "amount"; <p>Amended cross-references throughout.</p>
Chapter 8	3.19	Settlement	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 3.19.2 – added detail on the funding of debits to the <i>TR clearing account</i>; <p>Section 3.19.3 – replaced "congestion rents" with "<i>day-ahead market external congestion rent</i>".</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 8	3.20	Default in Payment	No Change	No substantive changes.
Chapter 9	Throughout	General Changes Throughout Chapter 9	Modified	The following changes have been made throughout Chapter 9: <ul style="list-style-type: none"> • As a matter of clean-up, deleted all instances of "intentionally left blank – section deleted"; • Renumbered section/subsections and updated cross-references accordingly; • Replaced acronym "RWM" with "<i>registered wholesale meter</i>"; • Revised <i>market rules</i> section numbering convention – new convention will be uniform throughout the <i>market rules</i> and <i>market manuals</i>; • Deleted the acronym "(TRs)".
Chapter 9	Former 1.1	Application and Purpose	Deleted	Former sections 1.1 – The Application and Purpose, which summarizes the purpose of the chapter and lists examples of <i>settlement amounts</i> has been determined to be unnecessary and redundant, and has been deleted in its entirety.
Chapter 9	1.1	Regulated Settlement Amounts and Related Payment Charges	Modified	Modified the following: <ul style="list-style-type: none"> • Minor, stylistic wording changes. Deleted "without limitations", "and any regulations enacted thereunder, as amended from time to time" – language is unnecessary;
Chapter 9	2.1	Metering and Metering Responsibilities	Modified	Modified the following: <ul style="list-style-type: none"> • Minor, stylistic wording changes; • Section 2.1.4: replaced "<i>registered facility</i>" with "<i>resource</i>"; • Section 2.15: replaced "operating agreements" with the defined term "<i>interconnection agreements</i>"; • Section 2.1.5.1: replaced "interchanges" with the defined term "<i>interconnections</i>"; • Section 2.1.5.3 – replaced cross reference to "section 3.1.9" with "section 9 of Appendix 9.2".

Chapter	Section	Topic	Type of Change	Description
Chapter 9	2.2	Station Service	Modified	Modified the following: <ul style="list-style-type: none"> • Minor, stylistic wording changes; • Section 2.2.12.1 – replaced cross reference to “section 3.1.9” with “section 9 of Appendix 9.2”; • Section 2.2.15 and 2.2.16: replaced “<i>registered facility</i>” with “<i>facility</i>”.
Chapter 9	2.3	Metering Data Recording and Collection Frequency	Modified	Modified the following: <ul style="list-style-type: none"> • Section 2.3.2 – clarified and simplified section by inserting “<i>metering data regarding demand or power (in MW) for</i>”; • Replaced “<i>self-scheduling generation facilities</i>” with “<i>non-dispatchable generation resources</i>”; • Deleted references to “<i>transitional scheduling generators or intermittent generators</i>” – <i>transitional scheduling generators</i> no longer exist, <i>intermittent generators</i> included under <i>non-dispatchable generation resources</i>.
Chapter 9	2.4	Collection and Validation of Metering Data	Modified	Added section 2.4.6 (new) to specify the meaning of variables ‘m’, ‘c’ or ‘s’ in respect of <i>market participant</i> ‘k’ for purposes of new Appendix 9.2.
Chapter 9	2.5	Delivery Points	Modified	Modified the following: <ul style="list-style-type: none"> • Minor, stylistic wording changes; • Section 2.5.2 - specified that for purposes of determining <i>settlement amounts</i> referred to in sections 3, 4 and 5 of Chapter 9, all references to a <i>registered wholesale meter</i> are deemed to be a reference to the <i>delivery point</i> associated with a <i>registered wholesale meter</i> or <i>registered wholesale meter(s)</i> associated with the <i>facility</i>.
Chapter 9	2.6	Collection of Interchange Schedule Data	Modified	Section 2.6.1.1 – replaced “transmission interface” with the defined term “ <i>intertie</i> ”.
Chapter 9	2.7	Collection of Physical Bilateral Contract Data	Modified	Modified the following: <ul style="list-style-type: none"> • Section 2.7.1: added reference to “the <i>day-ahead market</i> and/or the <i>real-time market</i>”; • Replaced “hours” with the defined term “<i>settlement hours</i>”;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 2.7.3 – replaced “interval quantities” with the defined term “<i>metering interval quantities</i>”; Section 2.6.3, 2.6.4 – replaced cross reference to section 3.1.6 to section 7 of Appendix 9.2.
Chapter 9	2.8	Collection of Transmission Right (TR) Data	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 2.8.1: replaced “differences in <i>energy prices</i> between the specified injection <i>TR zone</i> and the specified withdrawal <i>TR zone</i> with which each <i>TR</i> is associated” with “the external congestion component of the <i>day-ahead market intertie zone locational marginal price</i>”.
Chapter 9	2.10	Collection of Market Price and Other Settlement Data	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Added “and its appendices” to the cross reference to Chapter 7 of the <i>market rules</i>; Added “and any other information” to the list of inputs as may be needed by the <i>settlements process</i> for determining <i>settlement amounts</i> pursuant to Chapter 9.
Chapter 9	2.12	Settlement Variables and Data	New	This new section specifies that the <i>IESO</i> shall determine <i>settlement amounts</i> using the variables, data, mathematical functions and information described in accordance with Appendix 9.2 – Data Inputs and Variables, and shall provide this <i>settlement</i> data directly to the <i>settlement process</i> .
Chapter 9	2.13	Recovery of Ineligible Settlement Amounts	New	This new section specifies that if the <i>IESO</i> determines that any <i>settlement amount</i> was paid to a <i>market participant</i> despite that <i>market participant</i> being ineligible to receive such <i>settlement amount</i> , the <i>IESO</i> may recover such payments and redistribute any recovered payments to <i>market participants</i> .
Chapter 9	2.14	Market Remediation		This new section specifies that if the <i>IESO</i> implements <i>administrative prices</i> in accordance with Chapter 7 of the <i>market rules</i> , that the <i>IESO</i> shall utilize the <i>administrative prices</i> during the <i>settlement process</i> . The section also provides further specifics if the <i>IESO</i> declares a <i>day-ahead market</i> failure or suspension.
Chapter 9	Existing Section 3	Determination of Hourly	Deleted	Existing section 3 – “Determination of Hourly Settlement Amounts” has been deleted in its

Chapter	Section	Topic	Type of Change	Description
		Settlement Amounts - All		entirety, and replaced with new section 3 - "Hourly Settlement Amounts"
Chapter 9	3, 3.1	Hourly Settlement Amounts: Two Settlement	New	This section specifies the two- <i>settlement</i> system to support the <i>day-ahead market</i> and the <i>real-time market</i> , including specifics on the calculation of <i>day-ahead market settlement</i> and real-time balancing <i>settlement</i> for: <ul style="list-style-type: none"> • Hourly <i>physical transaction settlement amounts</i>; • Hourly <i>virtual transaction settlement amounts</i>; • Hourly <i>operating reserve settlement amounts</i>.
Chapter 9	3.2	Hourly Physical Transaction Settlement Amount – Non-Dispatchable Resources	New	This section specifies the calculation of the hourly <i>physical transaction settlement amount</i> for <i>non-dispatchable loads</i> , <i>non-dispatchable generation resources</i> and <i>self-scheduling electricity storage resources</i> .
Chapter 9	3.3	DAM Balancing Credit	New	This section specifies the eligibility and calculations for the <i>day-ahead market</i> balancing credit <i>settlement amount</i> for <i>GOG-eligible resources</i> and <i>boundary entity resources</i> .
Chapter 9	3.4	Day-Ahead Market Make-Whole Payments	New	This section specifies the eligibility, exceptions, calculations and components for the <i>day-ahead market</i> make-whole payment for the following <i>resource</i> types: <ul style="list-style-type: none"> ○ <i>Dispatchable generation resources</i> not associated with a <i>pseudo-unit</i>; ○ <i>Dispatchable loads</i>; ○ <i>Non-hourly demand response price responsive loads</i>; ○ <i>Physical hourly demand response price responsive loads</i>; ○ <i>Boundary entity resources</i> – imports and exports; ○ <i>Hydroelectric generation resources</i>; and ○ <i>Dispatchable generation resource</i> associated with <i>pseudo-unit</i>.
Chapter 9	3.5	Real-Time Make Whole Payments	New	This section specifies the eligibility, exceptions, calculations and components for the <i>real-time market</i> make-whole payment for the following <i>resource</i> types:

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> ○ <i>Dispatchable generation resources</i> not associated with a <i>pseudo-unit</i>; ○ <i>Dispatchable loads</i>; ○ <i>Boundary entity resources</i> – imports and exports; and ○ <i>Dispatchable generation resource</i> associated with <i>pseudo-unit</i>.
Chapter 9	3.6	Real-Time Intertie Offer Guarantee	New	This section specifies the eligibility and calculations related to the real-time <i>intertie offer guarantee settlement amount</i> for <i>energy</i> import transactions for <i>boundary entity resources</i> .
Chapter 9	3.7	Real Time Intertie Failure Charge	New	This section specifies the eligibility and calculations related to the real-time import failure charge and the real-time export failure charge for <i>boundary entity resources</i> .
Chapter 9	3.8	Hourly Settlement Amounts for Transmission Rights	New	This section specifies the eligibility and calculations related to the <i>TR settlement credit settlement amount</i> .
Chapter 9	3.9	Operating Deviations (ORSSD)	Modified	Existing section 3.8 has been moved to section 3.9, with changes to the formulation.
Chapter 9	3.10	Hourly Uplifts	New	This section specifies the equation for the total <i>hourly uplift</i> to be recovered from <i>market participants</i> (“HUSA _n ”), and allocation methodology of such <i>hourly uplift</i> to all <i>market participants</i> on a pro-rata basis.
Chapter 9	4	Non-Hourly Settlement Amounts		<p>Existing section 4 of the <i>market rules</i> – Non-Hourly Settlement Amounts will include the following sections which will not substantively change:</p> <ul style="list-style-type: none"> • Section 4.1 – Transmission Tariff Changes – no change; • Section 4.2 – Ancillary Service Payments – deletion of “intentionally left blank – section deleted” and consequential renumbering; • Section 4.3 – IESO Administration Charge, Penalties, and Fines – renumbered from existing section 4.5 to new section 4.3; no other changes; • Section 4.9 – Transmission Rights Clearing Account Disbursements – renumbered from existing section 4.7 to new section 4.9; cross referencing updates, no substantive changes;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 4.12 – Forecasting for Variable Generation – renumbered from existing section 4.7G to new section 4.12 – no other changes; Section 4.13 – Capacity Obligations – renumbered from existing section 4.7J to new section 4.13 – Note: This provision has been left blank and the updated MRP provisions will be provided in a future batch once anticipated <i>market rule amendments</i> related to <i>capacity auctions</i> is complete and the baseline is settled. <p>The remainder of existing section 4 of the market rules will be deleted in their entirety, and replaced by sections 4.4 to 4.8, 4.10 to 4.11, and 4.14 as detailed below.</p>
Chapter 9	4.1	Transmission Tariff Charges	No Change	No change.
Chapter 9	4.2	Ancillary Service Payments	No Change	No substantive changes.
Chapter 9	4.3	IESO Administration Charge, Penalties, and Fines	No Change	No substantive changes.
Chapter 9	4.4	DAM Generator Offer Guarantee (DAM_GOG)	New	<p>This section specifies the eligibility, calculations and variants for the <i>day-ahead market generator offer guarantee settlement amount</i> for the following <i>GOG-eligible resources</i>:</p> <ul style="list-style-type: none"> DAM GOG for non-<i>pseudo units</i>; DAM GOG – combustion turbine associated with a <i>pseudo-unit</i>; DAM GOG – steam turbine associated with a <i>pseudo-unit</i>.
Chapter 9	4.5	RT Generator Offer Guarantee	New	<p>This section specifies the eligibility, calculations and variants for the real-time <i>generator offer guarantee settlement amount</i> for the following <i>GOG-eligible resources</i>:</p> <ul style="list-style-type: none"> Non-<i>pseudo units</i>; Combustion turbine associated with a <i>pseudo-unit</i>; Steam turbine associated with a <i>pseudo-unit</i>.

Chapter	Section	Topic	Type of Change	Description
Chapter 9	4.6	Real-Time Ramp Down Settlement Amount	New	This section specifies the eligibility and calculations for the real-time ramp-down <i>settlement amount</i> for the following <i>GOG-eligible resources</i> : <ul style="list-style-type: none"> • <i>GOG-eligible resources</i> not associated with a <i>pseudo-unit</i>; • <i>GOG-eligible resources</i> associated with a <i>pseudo-unit</i> – combustion turbine; • <i>GOG-eligible resources</i> associated with a <i>pseudo-unit</i> – steam turbine.
Chapter 9	4.7	Internal Congestion and Loss Residuals	New	This section specifies the calculations for the internal congestion and loss residual <i>settlement amount</i> disbursed to or collected from <i>market participants</i> for <i>non-dispatchable loads</i> , <i>dispatchable loads</i> and <i>price responsive loads</i> .
Chapter 9	4.8	Real-Time External Congestion, Real-Time NISL Residual, and Day-Ahead Market NISL Residuals	New	This section specifies the calculations for the real-time external congestion residual <i>settlement amount</i> , real-time net interchange schedule limit (NISL) residual, <i>day-ahead market</i> NISL residual disbursed to or collected from the <i>market participants</i> for <i>non-dispatchable loads</i> , <i>dispatchable loads</i> , <i>price responsive loads</i> , and <i>boundary entity resources</i> engaging in export transactions.
Chapter 9	4.9	Transmission rights clearing account disbursements	No Change	This section has been renumbered from existing section 4.7 to new section 4.9; cross referencing updates, no substantive changes.
Chapter 9	4.10	Generator Failure charge	New	This section specifies the eligibility and calculations related to the <i>generator failure charge</i> – <i>market price</i> component <i>settlement amount</i> and the <i>generator failure charge</i> – <i>guarantee cost</i> component <i>settlement amount</i> of a <i>generator failure</i> , for <i>GOG-eligible resources</i> for non- <i>pseudo-units</i> and <i>pseudo-units</i> .
Chapter 9	4.11	Fuel Cost Compensation Credit	New	This section specifies the conditions and principles for the calculation and disbursement of the fuel cost compensation credit <i>settlement amount</i> for <i>GOG-eligible resources</i> .
Chapter 9	4.12	Forecasting for Variable Generation	No Change	Renumbered from 4.7G. No change to the provision.
Chapter 9	4.13	Capacity Obligations	No Change	Renumbered from existing section 4.7J to new section 4.13 – no other changes.

Chapter	Section	Topic	Type of Change	Description
				Note: This provision has been left blank and the updated MRP provisions will be provided in a future batch once anticipated <i>market rule amendments</i> related to <i>capacity auctions</i> is complete and the baseline is settled.
Chapter 9	4.14	Non-Hourly Uplifts	New	<p>This section specifies the non-hourly uplifts calculated, collected or distributed (as applicable) from/to applicable <i>market participants</i>:</p> <ul style="list-style-type: none"> • Generator Failure Charge – Guarantee Cost Component Uplift; • Real-Time Generator Offer Guarantee Uplift; • Day-Ahead Market Uplift; • Day-Ahead Market Reliability Scheduling Uplift; • Fuel Cost Compensation Uplift; • Mitigation Amount for Physical Withholding Uplift; • Mitigation Amount for Intertie Economic Withholding Uplift; • Real-Time Ramp-Down Settlement Amount Uplift; • Additional Non-Hourly Uplifts.
Chapter 9	Existing Section 5	Market Power Mitigation	Deleted	Existing section 5 – Market Power Mitigation is obsolete, and has been deleted in its entirety. This charge type was in place between 2006 and 2009.
Chapter 9	5	Market Power Mitigation	New	<p>This section specifies the market power mitigation process for the following <i>settlement amounts</i>:</p> <ul style="list-style-type: none"> • <i>Day-ahead market</i> make-whole payment <i>settlement amount</i>; • <i>Day-ahead market generator offer</i> guarantee <i>settlement amount</i>; • Real-time make-whole payment <i>settlement amount</i>; • Real-time <i>generator offer</i> guarantee <i>settlement amount</i>; • Ramp-down <i>settlement amount</i>. <p>It also specifies the following new <i>settlement amounts</i> related to the market power mitigation process:</p> <ul style="list-style-type: none"> • Mitigation Amount for Physical Withholding; • Mitigation Amount for Intertie Economic Withholding;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> • Day-Ahead Market Reference Level Settlement Charge; • Real-Time Market Reference Level Settlement Charge.
Chapter 9	6	Settlement Statements		<p>Note: The baseline <i>market rules</i> for section 6 – Settlement Statements include the proposed <i>market rule amendments</i> for the Replacement of the IESO Settlement System (RSS – MR-00472). Market Renewal related changes to section 6 are shown with tracked changes.</p>
Chapter 9	6.1	Communication of Settlement Information	Modified	<ul style="list-style-type: none"> • Italicized 'process' as part of the defined term '<i>settlement process</i>'. • Removed "facsimile" as a communications method.
Chapter 9	6.2	Settlement Schedule and Payments Calendar	No Change	No changes.
Chapter 9	6.3	Settlement Cycles	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 6.3.6 – replaced subsection numbering of a, b, c with section numbers and edited cross references accordingly; • Sections 6.3.13 to 6.3.17 - Inserted references to the "<i>day-ahead market</i>"; replaced a-h subsection numbering with numerical references; • Sections 6.3.20 to 6.3.23 – deleted "<i>real-time market billing period</i>" and for each <i>TR market billing period</i> – additional language is unnecessary and simply references "<i>billing period</i>"; • Section 6.3.27 - deleted "<i>energy market</i>" – additional language is unnecessary and simply references "<i>billing period</i>".
Chapter 9	6.4	Settlement Statement Process	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 6.4.1 – streamlined cross-referencing; • Section 6.4.6 - replaced instances of "re-send" or "re-sent" to "re-issue" or "re-issued".
Chapter 9	6.5	Preliminary Settlement Statement Coverage	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 6.5.1 - replaced "separate" <i>preliminary statement</i> with "individualized" <i>preliminary statement</i>;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Sections 6.5.1.2 and 6.5.3 - inserted "<i>day-ahead market</i>" when referencing the "<i>real-time market</i>" and in the <i>TR market</i>"; Section 6.5.2.1 - replaced reference to the "<i>hourly Ontario energy price</i>" with "<i>applicable market price</i>"; Sections 6.5.2.4 and 6.5.4.13 – replaced "type of charge" with defined term "<i>charge type</i>"; Section 6.5.4 - replaced "<i>registered facilities</i>" with "<i>resources</i>"; inserted "<i>day-ahead schedule</i>" when referencing the "<i>real-time schedule</i>"; section 6.5.4.3 – replaced "the market schedule and the real-time schedule" with the "<i>day-ahead schedule</i> and the <i>real-time schedule</i>"; Section 6.5.4.8 – inserted "applicable" when referencing the "<i>energy market price</i>"; Section 6.5.4.9 – replaced "5-minute price" with "<i>market price</i>" for each class of <i>operating reserve</i>; Sections 6.5.4.12 to 6.5.4.14 – replaced "payments" with "credits".
Chapter 9	6.6	Final Settlement Statement Coverage	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 6.6.1.2 - inserted "<i>day-ahead market</i>"; Section 6.6.4 - replaced "outstanding disagreement" with "outstanding <i>settlement</i> disagreement".
Chapter 9	6.7	Recalculated Settlement Statement Coverage	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 6.7.1.2 - inserted "<i>day-ahead market</i>"; Section 6.7.4 - replaced "outstanding disagreement" with "outstanding <i>settlement</i> disagreement".
Chapter 9	6.8	Market Participant Validation of Settlement Statements		<p>Modified the following:</p> <ul style="list-style-type: none"> Section 6.8.3 – replaced subsection numbering of a, b, c with section numbers and edited cross references accordingly; Section 6.8.4.2 – replaced "<i>dispatch day</i>" with "<i>trading day</i>"; Section 6.8.12.4 – deleted cross-reference to Appendix 7.6 of Chapter 7 which has been deleted in its entirety; Section 6.8.12.8 – replaced references to the "5-minute energy market price" and "hourly

Chapter	Section	Topic	Type of Change	Description
				Ontario energy price" and replaced with "market prices"; <ul style="list-style-type: none"> Section 6.8.12.10 – new section adding matters subject to the independent review process set out in section 22.8 of Chapter 7 to the list of exclusions for a <i>notice of disagreement</i>.
Chapter 9	6.9	IESO Validation of Settlement Statements	Modified	Modified the following: <ul style="list-style-type: none"> Section 6.9.1 – grammatical change: deleted "take one of the following steps"; Section 6.9.2 – note: the effective date of RSS changes will be amended at a later time.
Chapter 9	6.10	Dispute Resolution	No Changes	<ul style="list-style-type: none"> No changes, other than section reference style changes.
Chapter 9	6.11	Responsibility of the IESO	Modified	<ul style="list-style-type: none"> Section 6.11.2 - inserted "<i>day-ahead market and</i>".
Chapter 9	6.12	Settlement Invoices	Modified	Modified the following: <ul style="list-style-type: none"> Section 6.12.2.2 – minor wording change - inserted "is held"; Section 6.12.5 - replaced instances of "re-send" or "re-sent" to "re-issue" or "re-issued".
Chapter 9	6.13	Payment of Invoices	Modified	Section 6.13.3 – italicized the word "services" within the term " <i>transmission services charges</i> ".
Chapter 9	6.14, 6.15	Funds Transfer, Confirmation Notices	No Change	No substantive changes.
Chapter 9	6.16	Payment Default	Modified	Modified the following: <ul style="list-style-type: none"> Section 6.16.5.1 - inserted "<i>day-ahead market and</i>"; Section 6.16.6.2 – replaced "intervals" with the defined term "<i>metering intervals</i>"; Sections 6.16.8 and 6.16.9 – deleted "real-time" before "<i>market creditor</i>" – wording unnecessary and not inclusive of the <i>day-ahead market</i>.
Chapter 9	6.17	Payment Errors, Adjustments, and Interest	No Change	No substantive changes.
Chapter 9	6.18	Settlement Financial Balance/Maximum Amount	Modified	Modified the following: <ul style="list-style-type: none"> Section 6.18.1.1 – replaced "<i>hourly market</i>" with "<i>day-ahead market and real-time market</i>"; Section 6.18.1.2 – inserted "daily and";

Chapter	Section	Topic	Type of Change	Description
		Payable by IESO		<ul style="list-style-type: none"> • Section 6.18.2 – inserted “day-ahead market”; • Section 6.18.3 – inserted “<i>day-ahead market</i> and <i>real-time market</i>” before “<i>settlement amounts</i>”.
Chapter 9	6.19	Audit	No Changes	No changes.
Chapter 9	6.20	Settlement Accounts	No Changes	No substantive changes.
Chapter 9 – Appendix 9.1	1.1-1.7	VEE Process		<p>Modified the following:</p> <ul style="list-style-type: none"> • Deleted all instances of “intentionally left blank – section deleted” for clean-up; • renumbered section/subsections and updated cross-references accordingly; • replaced acronym “<i>RWM</i>” with “<i>registered wholesale meter</i>”; • revised <i>market rules</i> section numbering convention; • Section 1.5.8 - replaced “<i>generation facility</i>,” “<i>load facility</i>,” and “<i>electricity storage facility</i>” with “<i>generation resource</i>,” “<i>load resource</i>,” and “<i>electricity storage resource</i>” respectively.
Chapter 9 – Appendix 9.2	1-10	Data Inputs and Variables	New	<p>New Appendix 9.2 defines the variables, subscripts and superscripts for the purposes of Chapter 9 and Chapter 9 Appendices.</p> <p>Appendix 9.2 also specifies the following data inputs which are provided directly to the <i>settlement process</i>:</p> <ul style="list-style-type: none"> • Registration and General Variables, Data and Information; • Day-Ahead Market Variables, Data and Information; • Pre-Dispatch Variables, Data and Information; • Real-Time Market Variables, Data and Information; • Pre-Dispatch Variables, Data and Information; • Physical Bilateral Contract Variables, Data and Information; • Transmission Rights Variables, Data and Information; • Allocated Quantities; • Market Power Mitigation; <p>Lastly, Appendix 9.2 specifies the mathematical functions used in Chapter 9 and its appendices.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9 – Appendix 9.3	1.1-1.6	Pseudo Unit Translation	New	New Appendix 9.3 defines the variables and specify the formulations for <i>pseudo-unit</i> translation, which are provided directly to the <i>settlement process</i> for the following: <ul style="list-style-type: none"> • Day-Ahead Market – Energy; • Day-Ahead Market – Operating Reserve; • Pre-Dispatch – Energy; • Pre-Dispatch – Operating Reserve; • Real-Time Market – Energy; • Real-Time Market – Operating Reserve.
Chapter 9 – Appendix 9.4	1-3	Settlement Mitigation	New	New Appendix 9.4 defines the variables and methodology for <i>settlements</i> mitigation in the <i>day-ahead market</i> and the <i>real-time market</i> by specifying: <ul style="list-style-type: none"> • Constrained Area Conditions – determination of whether and which conduct tests will apply; • Applicable Resources – determination of which resources are subject to any applicable conduct tests; • Conduct Test – application of applicable conduct tests to applicable resources identified.
Chapter 11	n/a	All	New, Modified, Deleted	Various – introduced new definitions and edited existing defined terms to support Market Settlements, Metering, and Market Billing and Funds Administration.

Summary of Market Rule Changes: April 2023

Chapter	Section	Topic	Type of Change	Description
Chapter 6	2	Requirements for Metering Installations	Modified	Section 2.1.1.2 – removed the word ‘registered’. This change was made in response to internal feedback.
Chapter 6	10	Periodic Energy Metering	Editorial	Modified the following: <ul style="list-style-type: none"> • Section 10.3 – as a matter of clean-up, deleted several instances of “[intentionally left blank]”; • Section 10.3.2 – for consistency, replaced “section deleted – intentionally left blank” with “intentionally left blank – section deleted”. <p>This change was made in response to written feedback from OPG (comment id 19).</p>
Chapter 6 Appendix 6.2	1.5	Functional Requirements	Modified	Section 1.5.1.4 – deleted “subject to section 1.5.1.5”. This change was made in response to written feedback from OPG (comment id 20).
Chapter 8	Throughout	All	Editorial	Modified the following: <ul style="list-style-type: none"> • Updated section references; <p>This change was made in response to internal feedback.</p> <ul style="list-style-type: none"> • <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention. <p>This change was made in response to written feedback from OPG (comment id 22, 25, 27, 29).</p>
Chapter 8	3	The Transmission Rights Market	Editorial	Section 3.16.3 – italicized the defined term “ <i>business day</i> ”. This change was made in response to written feedback from OPG (comment id 28).
Chapter 9	Throughout	All	Editorial	Modified the following: <ul style="list-style-type: none"> • Minor grammatical, typographical changes; • <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention; • clean up of several instances of “[intentionally left blank]”.

Chapter	Section	Topic	Type of Change	Description
Chapter 9	2.14.2 b(ii)	Market Remediation	Modified	<p>Section updated for clarity – deleted “without the load forecast deviation charge and” and added “and the applicable load forecast deviation charge is deemed to be 0.”</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	3.3	Day-Ahead Market Balancing Credit	Modified/ New	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.3.3 (new) –specified that <i>linked wheeling through transactions</i> are ineligible for the Day-Ahead Market Balancing Credit; edited subsequent section numbering. <p>This change was made in response to internal feedback.</p>
Chapter 9	3.4	Day-Ahead Market Make-Whole Payment	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.10 – Edited equation for Day-Ahead Market Make-Whole Payment for Physical Hourly Demand Response Price Responsive Loads: first operating profit function incorrectly showed LMP, QSW, and BL as subscripts when they should not be subscripts. <p>This change was made in response to internal feedback.</p>
Chapter 9	3.5	Real-Time Make-Whole Payment	Modified, New	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.5.4.1 (ii) and (iii) – replaced “is equal to the <i>minimum daily energy limit</i>” to “is less than or equal to the <i>minimum daily energy limit</i>”; Section 3.5.4.7 (new) and 3.5.4.8 (new) – added two ineligibility conditions for “OLC” and “OLOC” for <i>operating reserve</i>; With the insertion of new sections 3.5.4.7 and 3.5.4.8 – revised cross referencing within this section; Section 3.5.6 – revised section “b.” of the RT_MWP equation; Section 3.5.6.1 – revised the RT_ELC equation; Section 3.5.6.1a. – revised the RT_FROP_LC equation for <i>dispatchable generation</i>

Chapter	Section	Topic	Type of Change	Description
				<p><i>resources</i> registered as a hydroelectric <i>generation resource</i>;</p> <ul style="list-style-type: none"> • Section 3.5.7 – revised the equations in “a. – RT_ELC” and “b. – RT_OLC” for <i>dispatchable loads</i>; • Section 3.5.8.1 – revised the equation in “b.” – RT_OLC for export transactions; • Section 3.5.8.2 – revised the equation in “b.” – RT_OLC for export transactions; • Section 3.5.8.3 – revised the equation in “a.” – RT_OLC for import transactions; • Section 3.5.9 – revised the equations in “a.” and “b.”, RT_ELC and RT_OLC respectively, for a combustion turbine of a <i>dispatchable generation resource</i> associated with a <i>pseudo-unit</i>; • Section 3.5.10 – revised the equations in “a.” and “b.”, RT_ELC and RT_OLC respectively, for a steam turbine of a <i>dispatchable generation resource</i> associated with a <i>pseudo-unit</i>. <p>These changes were made in response to internal feedback.</p>
Chapter 9	4.5	Real-Time Generator Offer Guarantee	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 4.5.2(b.)(iii.) – deleted “or <i>reliability commitment</i>,” – there cannot be a <i>reliability commitment</i> and a commitment related to the safety of any person, equipment damage, or violation of <i>applicable law</i> at the same time; • Section 4.5.2(b.)(iii.)(a.) – deleted “either” and “or <i>extended pre-dispatch operational commitment</i>”; • Section 4.5.9(c.)(b.)(i) – added a notwithstanding clause and further details on the RT_GOG_SU equation; • Section 4.5.18(b.)(i) and (ii) – inserted a notwithstanding clause and further details on the RT-GOG_COMP4 equation; • Section 4.5.24 – revised the equation for RT_GOG Component 3 – replaced “(1-ST_Portion)” with “ST_Portion”. <p>These changes were made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 4.5.5 and 4.5.14 – amended the sections to correct the description of variant #3. <p>This change was made in response to written feedback from OPG (comment id 34 and 35).</p>
Chapter 9	4.6	Real-Time Ramp-Down Settlement Amount	Modified	<p>Sections 4.6.2.1, 4.6.7.1, 4.6.12.1 - Clarified that 'T' is the ramp-down period.</p> <p>This response was updated in response to stakeholder feedback from OPG (comment id 36).</p>
Chapter 9	4.7	Internal Congestion and Loss Residuals	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 4.7.1.3 – changed 'M' to 'M0', updated CRLR equation accordingly; <p>This change was made in response to written feedback from OPG (comment id 12 and 13).</p> <ul style="list-style-type: none"> Section 4.7.2 – revised the equation for the calculation of CRLR – inserted an additional line (second last line of the equation) subtracting RT_PEC. <p>This change was made in response to internal feedback.</p>
Chapter 9	5.1	Mitigation of Settlement Amounts	Modified, New	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 5.1.2.2(c.) – revised the equation by replacing "DAM_SU" with "DAM_BE_SU" and "EMFC_DAM_SU" with "EMFC_DAM_BE_SU"; New sections 5.1.2.3(d) and (e) – inserted notwithstanding clauses to support calculation of the applicable <i>settlement amounts</i> where a <i>resource</i> which is otherwise eligible to receive a <i>settlement amount</i> fails a conduct test. <p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> Section 5.1.2.3(iii) – unitalicized "broad constrained area" which is not a Chapter 11 defined term.

Chapter	Section	Topic	Type of Change	Description
				This change was made in response to stakeholder feedback from OPG (comment id 1).
Chapter 9	5.2	Day-Ahead Market Reference Level Settlement Charge	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 5.2.1 – inserted “or <i>dispatchable electricity storage resource</i>”; • Section 5.2.1(b.) – deleted “<i>generation</i>” before the term “<i>resource</i>” – section is for <i>generation resource</i> or <i>dispatchable electricity storage resource</i>; • Section 5.2.1.1 – restructured and streamlined section for clarity; corrected cross reference to section 22.5.5 from 22.5.6, added cross reference to section 22.5.7.1 – Changes to Reference Levels (Market Power Mitigation); deleted the word “<i>generation</i>” – section is for <i>generation resource</i> or <i>dispatchable electricity storage resource</i>; deleted “or that the <i>generation resource</i> needed to use the set of <i>reference levels</i> associated with the profile with the highest costs” – consequential to the change in the cross reference from section 22.5.6 to 22.5.5 above; • Section 5.2.1.2 – revised to reflect all combinations of scenarios whereby the <i>IESO</i> will utilize the <i>resource’s reference level value</i> without taking into account a temporary revision to fuel costs or higher cost reference level for fuel costs. <p>These changes were made in response to internal feedback.</p>
Chapter 9	5.3	Real-Time Market Reference Level Settlement Charge	Modified	<p>The following changes mirror the changes to the Day-Ahead Market Reference Level Settlement Charge in section 5.2 above:</p> <ul style="list-style-type: none"> • Section 5.3.1 – inserted “or <i>dispatchable electricity storage resource</i>”;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> • Section 5.3.1(b.) – deleted “<i>generation</i>” before the term “<i>resource</i>” – section is for <i>generation resource</i> or <i>dispatchable electricity storage resource</i>; • Section 5.3.1.1 – restructured and streamlined section for clarity; corrected cross reference to section 22.5.5 from 22.5.6, added cross reference to section 22.5.7.2 – Changes to Reference Levels (Market Power Mitigation); deleted the word “<i>generation</i>” – section is for <i>generation resource</i> or <i>dispatchable electricity storage resource</i>; deleted “or that the <i>generation resource</i> needed to use the set of <i>reference levels</i> associated with the profile with the highest costs” – consequential to the change in the cross reference from section 22.5.6 to 22.5.5 above; • Section 5.3.1.2 – revised to reflect all combinations of scenarios whereby the <i>IESO</i> will utilize the <i>resource’s reference level value</i> without taking into account a temporary revision to fuel costs or higher cost reference level for fuel costs. <p>These changes were made in response to internal feedback.</p>
Chapter 9	5.4	Ex-Post Mitigation for Physical Withholding	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 5.4.1.1(c.)(ii.) – for the variable “MWhs Failed”, deleted cross reference to the “applicable <i>market manual</i>” and replaced with conditions (a.) and (b.); • Section 5.4.1.1(d.)(ii) - For the variable “MWhs Failed”, deleted cross reference to the “applicable <i>market manual</i>” and replaced with “as determined by subtracting the <i>market participant’s energy offer</i> from the <i>energy reference quantity value</i> of the <i>resource</i> associated with the <i>offer</i>”; • Section 5.4.1.2(c.) and (d.) – inserted subsection numbering “(c.)” and “(d.)”; • Section 5.4.1.2(d.)(ii) – replaced “in accordance with the applicable <i>market manual</i>” with “by subtracting the <i>market</i>

Chapter	Section	Topic	Type of Change	Description
				<p><i>participant's operating reserve offer</i> from the <i>operating reserve reference quantity value</i> of the <i>resource</i> associated with the <i>offer</i>".</p> <p>These changes were made in response to internal feedback.</p>
Chapter 9	5.5	Ex-Post Mitigation for Economic Withholding on Uncompetitive Interties	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 5.5.1.1(b.) and (c.) – inserted subsection numbering "(b.)" – DAM_EWUI and "(c.)" – RT_EWUI; • Section 5.5.1.1(b.)(ii.) and (c.)(ii.) MWhs Failed - replaced "in accordance with the applicable <i>market manual</i>" with "by subtracting the <i>market participant's energy offer</i> from the <i>energy reference quantity value</i> of the <i>resource</i> associated with the <i>offer</i>"; • Section 5.5.1.3 (b.) and (c.) – inserted subsection numbering "(b.)" – DAM_EWUI and "(c.)" – RT_EWUI; • Section 5.5.1.3(b.)(ii.) and (c.)(ii.) MWhs Failed - replaced "in accordance with the applicable <i>market manual</i>" with "by subtracting the <i>market participant's energy offer</i> from the <i>energy reference quantity value</i> of the <i>resource</i> associated with the <i>offer</i>". <p>These changes were made in response to internal feedback.</p>
Chapter 9	6	Settlement Statements	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Updated language throughout MR Ch.6 s.6 – Settlement Statements to reflect the IESO Board approved version of MR-00475-R00 – Replacement of the IESO Settlement System (RSS): New Implementation date; • Section 6.5.4.1 – replaced "<i>energy injected or withdrawn</i>" to "<i>energy scheduled to be injected or withdrawn</i>"; • Section 6.16.6.2 – corrected cross references – replaced references to "MR Ch.8 ss. 4.19.3 and 4.19.5" with "MR Ch.8 ss. 3.19.3 and 3.19.5".

Chapter	Section	Topic	Type of Change	Description
				<p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> Section 6.16.5.1(d.) – replaced cross reference from s. 3.19.6 to 3.19.7. <p>This change was made in response to written feedback from OPG (comment id 39).</p>
Chapter 9 – Appendices	Throughout	All	Editorial	Updated <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention.
Chapter 9 – Appendix 9.2	5	Real-Time Market Variables, Data and Information	Modified	<ul style="list-style-type: none"> Section 5.1 – Inserted “as may be modified by the <i>IESO</i>”, as ex-post adjustments may modify the original output of the real-time calculation engine. <p>These changes were made in response to internal feedback.</p>
Chapter 9 – Appendix 9.2	9	Market Power Mitigation	Modified	<ul style="list-style-type: none"> Section 9.1.3 – Updated equation – replaced “EMFC_DAM_SU” with “EMFC_DAM_BE_SU”; Section 9.1.9 to 9.1.12 – added “as set by the <i>IESO</i> pursuant to MR. Ch. 7 s. 22.5.8”. <p>These changes were made in response to internal feedback.</p>
Chapter 9 – Appendix 9.4	2	Day-Ahead Market Mitigation	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Sections 2.3.7 and 2.3.8 – inserted a second condition (b) when the <i>IESO</i> shall apply a conduct test for constrained areas (local market power and global market power) for operating reserve: “all <i>resources</i> that have a <i>day-ahead schedule</i> for <i>operating reserve</i> whom are located in a region with a binding maximum constraint or a binding maximum restriction constraint”.
Chapter 9 – Appendix 9.4	3	Real-Time Mitigation	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.3.4 and 3.3.4.1 – unitalicized “broad constrained area” which is not a Chapter 11 defined term;

Chapter	Section	Topic	Type of Change	Description
				<p>This change was made in response to stakeholder feedback from OPG (comment id 1).</p> <ul style="list-style-type: none"> Sections 3.3.5.2 and 3.3.8.2 – for the constrained area condition test for local and global market power mitigation for <i>operating reserve</i>, deleted reference to initial <i>settlement amount</i> in one of the conditions related to <i>GOG-eligible resources</i>; Sections 3.3.7 and 3.3.8.3 - for the constrained area condition test for local and global market power mitigation for <i>operating reserve</i>, inserted a condition when the <i>IESO</i> will apply such conduct test: “all <i>resources</i> that have a <i>real-time market schedule</i> for <i>operating reserve</i> whom are located in a region with a binding maximum constraint or a binding maximum constraint.” <p>These changes were made in response to internal feedback.</p>
Chapter 11		Defined Terms	Modified	<ul style="list-style-type: none"> Modified the definition for “<i>Ontario zonal price</i>” – inserted clarifying language “prior to any adjustments made as a result of the load forecast deviation charge,”: <p>means the price of <i>energy</i> in Ontario, prior to any adjustments made as a result of the load forecast deviation charge, applicable to <i>non-dispatchable loads</i>, as determined in the <i>real-time market</i> or in the <i>day-ahead market</i> in accordance with the provisions of MR Ch. 7, or an <i>administrative price</i>, where applicable;</p> <p>This change was made in response to feedback from OPG (comment id 15).</p>

Summary of Market Rule Changes: June 2023

Chapter	Section	Topic	Type of Change	Description
Chapter 6	1.2.1, 2.1.1, 2.1.2, 6.1.1, 6.1.1A	Revenue Meter Registration	Editorial	<p>Replaced “<i>real-time markets</i>” with “<i>real-time market</i>”.</p> <p>This change was made in response to written feedback from Vlad Urukov (comment id 2).</p>
Chapter 7	2.2.6A	Hydroelectric Resources – Optional Registration Requirements	Modified	<p>Consolidated previous draft sections 2.2.6A.4 and 2.2.6A.5 into a single provision 2.2.6A.4 as follows:</p> <p>Replaced:</p> <p>2.2.6A.4 <i>forebay</i>; and 2.2.6A.5 one or more <i>time lags</i> applicable to the <i>resource’s forebay</i>.</p> <p>With: 2.2.6A.4 <i>forebay</i> and any associated <i>time lags</i>.</p> <p>This change was made in response to written feedback from Vlad Urukov (comment id 30).</p>
Chapter 9	Throughout	All	Editorial	<ul style="list-style-type: none"> For Chapter 9 formulations, replaced instances of “MAX” and “MIN” to “Max” and “Min” for consistency throughout. <p>This change was made in response to written feedback from Vlad Urukov (comment id 42).</p> <ul style="list-style-type: none"> Updated <i>market rule</i> section numbering to the new convention. <p>This change was made in response to internal feedback.</p>
Chapter 9	2.3.2	Metering Data Recording and Collection Frequency	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Replaced “<i>Metering data</i> regarding <i>demand</i> or <i>power</i> (in MW) for <i>registered wholesale meters</i> that serves only”, with “<i>Demand metering data</i> for”; Inserted “at a given instant or averaged over” for clarity. <p>This change was made in response to written feedback from Vlad Urukov (comment id 8).</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9	2.8.1	Collection of Transmission Right (TR) Data	Editorial	<p>Section 2.8.1 – inserted the word “relevant” in the following phrase:</p> <p>“the external congestion component of the relevant <i>day-ahead market intertie zone locational marginal price.</i>”</p> <p>This change was made in response to written feedback from Vlad Urukov (comment id 15).</p>
Chapter 9	2.12.1	Settlement Variables and Data	Modified	<p>To increase the clarity of this section and to reflect the proper chronology of actions, split the previous draft language into two distinct subsections, whereby the <i>IESO</i> shall:</p> <ul style="list-style-type: none"> • 2.12.1.1 provide the variables and data described in Appendix 9.2 directly to the <i>settlement process</i>; and • 2.12.1.2 determine <i>settlement amounts</i> using the variables, data, mathematical functions and information described in and, where applicable, determined in accordance with Appendix 9.2. • Italicized “<i>settlement process</i>” which is a defined term in Chapter 11 of the <i>market rules</i>. <p>These changes were made in response to written feedback from Vlad Urukov (comment id 16).</p>
Chapter 9	2.14.2	Market Remediation	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 2.14.2(b.) – simplified/clarified this section to specify that the <i>IESO</i> shall “determine all of the <i>real-time market settlement amounts</i> only using <i>real-time market</i> data and variables”; • Section 2.14.2(c.) – editorial change: replaced “will be calculated” with “calculate the”; • Deleted “the applicable” and replaced with “a”; deleted “is deemed to be” and replaced with “of”. <p>These changes were made in response to written feedback from Vlad Urukov (comment id 18).</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9	3.1.1	Two-Settlement	Modified	<p>Section 3.1.1.4 – deleted “hourly <i>virtual transaction settlement amounts</i>”, as the HVTSA calculations do not use these sub/superscripts.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	3.1.4, 3.1.7	Hourly Physical Transaction Settlement Amount – Day-Ahead Market Settlement, Real-Time Balancing Settlement	Modified	<p>In sections 3.1.4 and 3.1.7:</p> <ul style="list-style-type: none"> Modified the variable “<i>HPTSA_PRL</i>” to “<i>HPTSA_PRL_SSW</i>”, since the variable is associated with <i>price responsive loads</i> or <i>self-scheduling electricity storage</i>. <p>This change was made in response to written feedback from Vlad Urukov (comment id 36)</p>
Chapter 9	3.3.4	Day-Ahead Market Balancing Credit	Editorial	<p>Section 3.3.4 (a) and (b):</p> <ul style="list-style-type: none"> Corrected grammatical error - inserted “is” in subsections (a) and (b). <p>This change was made in response to written feedback from Vlad Urukov (comment id 34 and 41).</p>
Chapter 9	3.3.5	Day-Ahead Market Balancing Credit	Modified	<p>Sections 3.3.5.1 and 3.3.5.2:</p> <ul style="list-style-type: none"> inserted “price” after “<i>offer</i>” and “<i>bid</i>”. <p>This change was made in response to written feedback from Vlad Urukov (comment id 43).</p>
Chapter 9	3.4.1	Day-Ahead Market Make-Whole Payment	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.1 – deleted “including hydroelectric <i>generation resources</i>”, as this language is redundant since it is already included within <i>dispatchable generation resources</i>; Section 3.4.1.2 – corrected grammatical errors by replacing “has” with “have”, and “its” with “their” – section is referring to resources (plural, not singular).

Chapter	Section	Topic	Type of Change	Description
				These changes were made in response to written feedback from Vlad Urukov (comment id 44 and 45).
Chapter 9	3.4.4	Day-Ahead Market Make-Whole Payment	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.4 – for consistency of language with section 3.4.5, replaced “shall not be paid for” with “the following <i>resources</i> shall not be eligible to receive”; Section 3.4.4.2 – to improve language and clarity, inserted “for a <i>generation resource</i> or <i>dispatchable electricity storage resource</i>” to create a better connection with subsections (a) and (b). <p>These changes were made in response to written feedback from Vlad Urukov (comment id 47 and 50).</p>
Chapter 9	3.4.13	Day-Ahead Market-Whole Payment for Hydroelectric Generation Resources	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.13.2(ii) – corrected error by replacing “<i>forbidden region</i> upper limit” with “<i>forbidden region</i> lower limit”; Section 3.4.13.2 (ii) and (iii) – inserted missing sub/superscripts for “<i>FR_UL</i>”. <p>These changes were made in response to internal feedback</p>
Chapter 9	3.5.10	Real-Time Make-Whole Payment for Dispatchable Generation Resources Associated with a Pseudo-Unit	Modified	<p>Section 3.5.10(iii) – corrected error by deleting “for the same <i>class r reserve</i>” since RT_ELOC is only applicable to <i>energy</i>.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.5.9, 4.5.18	Real-Time Generator Offer Guarantee	Editorial	<p>Section 4.5.9 and 4.5.18 – corrected typographical error by replacing “<i>minimum generation block-run time</i>” with “<i>minimum generation block run-time</i>”.</p> <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9	4.5.25	Real-Time Generator Offer Guarantee	Editorial	<p>Section 4.5.25(b.) - For consistency within section 4.5.25, inserted "<i>delivery point</i>" after "combustion turbine".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.8.1, 4.8.3, 4.8.4, 4.9.1	Real-Time External Congestion Residual, Transmission Rights Clearing Account Disbursements	Editorial	<p>Sections 4.8.1, 4.8.3 and 4.8.4, 4.9.1 – corrected typographical error by replacing "<i>transmission service charge</i>" with "<i>transmission services charge</i>".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.9.2.2	Transmission Rights Clearing Account Disbursements	Editorial	<p>Replaced "authorised" with "authorized".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.10.6	Non-Pseudo Unit – Guarantee Cost Component	Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> 4.10.6(c.) - corrected typographical error by replacing "<i>minimum generation block-run time</i>" with "<i>minimum generation block run-time</i>"; 4.10.6(d.) – moved "for <i>market participant</i> 'k' at <i>delivery point</i> 'm' " to the end of the section. <p>These changes were made in response to internal feedback.</p>
Chapter 9	4.14.1	Generator Failure Charge – Guarantee Cost Component Uplift	Editorial	<p>Corrected typographical error – replaced "generator cost component" with "guarantee cost component".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.14.11	Real-Time Ramp-Down Settlement Amount Uplift	Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> Subsection (a.) - Inserted "real-time" before "ramp-down <i>settlement amount</i>"; Removed italics from 'm'.

Chapter	Section	Topic	Type of Change	Description
				These changes were made in response to internal feedback.
Chapter 9	5.2.1 and 5.3.1	Day-Ahead Market Reference Level Settlement Charge And Real-Time Market Reference Level Settlement Charge	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 5.2.1 and 5.3.1 – inserted “<i>dispatchable</i>” before “<i>generation resource</i>”; • Added “that is injecting” following “<i>dispatchable electricity storage resource</i>”. <p>These changes were made in response to internal feedback.</p>
Chapter 9	5.5.1	Ex-Post Mitigation for Economic Withholding on Uncompetitive Interties	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 5.5.1.1(a) – corrected the definition of ‘H’ by replacing “in either the <i>day-ahead market</i>, or the <i>real-time market</i>’ to ‘in the <i>day-ahead market</i>, the <i>real-time market</i>, or both’ to ensure those hours where a <i>market participant</i> has been found to engage in <i>intertie economic withholding</i> in both timeframes is captured; • Section 5.5.1.1(a)(ii) – corrected error by replacing “<i>intertie metering point</i> ‘m’ ” with “<i>intertie metering point</i> ‘i’ ”; • Replaced “in MWs” with “in MWhs”; • Section 5.5.1.2(a.) – for consistency within this section, inserted “in the <i>day-ahead market</i>, the <i>real-time market</i>, or both”; • Section 5.5.1.3 (ii) – inserted “<i>metering interval</i> ‘t’ in”. <p>These changes were made in response to internal feedback.</p>
Chapter 9	6.5	Preliminary Settlement Statement Coverage	Modified	<p>Section 6.5.1.3 – inserted cross reference “MR Ch.6 s.10.4 and MR Ch.10 s.6C” which was inadvertently deleted in the prior version when revising <i>market rule</i> references to the new convention.</p> <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9	6.16.6	Payment Default	Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> Corrected typographical error by replacing "<i>transmission service charge</i>" with "<i>transmission services charge</i>"; Corrected italics for term "<i>transmission services charge</i>". <p>These changes were made in response to internal feedback.</p>
Chapter 9 – Appendix 9.2	8	Allocated Quantities	Modified	<p>Section 8.1 - Added the following clarifying language if for <i>settlement purposes</i>, the <i>IESO</i> is comparing hourly and interval data:</p> <ul style="list-style-type: none"> If physical quantities are provided only for each <i>metering interval</i>, the <i>IESO</i> shall, if for <i>settlement purposes</i> the <i>IESO</i> is comparing hourly and interval data, determine the hourly amounts defined below by multiplying the interval amounts by twelve. <p>This change was made in response to written feedback from Vlad Urukov (comment id 20 and 38).</p>
Chapter 9 – Appendix 9.3	1.1.1.2	Pseudo-Unit Translation – Introduction/ General	Modified	<p>Section 1.1.1.2 – for the maximum number of <i>price-quantity pairs</i> that may be submitted by a <i>market participant</i> at a <i>pseudo-unit delivery point</i>, replaced "five <i>price-quantity pairs</i>" with "20 divided by the number of combustion turbines and rounded down to the nearest whole number". This language reflects the current, maximum number of <i>price-quantity pairs</i> for <i>pseudo-units</i> which will not change as part of MRP.</p> <p>This change was made in response to written feedback from Atura (comment id 1).</p>
Chapter 11	n/a	Defined Terms	Modified	<p>Amended the defined term "<i>primary RWM</i>" by expanding the acronym as follows:</p> <p><i>"Primary registered wholesale meter or primary RWM means"</i></p>

Chapter	Section	Topic	Type of Change	Description
				This change was made in response to written feedback from Vlad Urukov (comment id 6).

Summary of Market Rule Changes: January 2024

Chapter	Section	Topic	Type of Change	Description
Chapter 9	Throughout	All	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> For clarification, replaced instances of “<i>boundary entity resources</i>” when intending to refer to a <i>market participant resource</i> type with “<i>energy traders</i> participating with <i>boundary entity resources</i>”, noting that <i>boundary entity resources</i> are not unique to a specific <i>energy trader</i>; For clarification, replaced “combustion turbines” with “combustion turbine <i>generation units</i>”; replaced “steam turbine” with “steam turbine <i>generation units</i>”; replaced “associated with a <i>pseudo-unit</i>” to “that are <i>pseudo-units</i>”/“that is a <i>pseudo-unit</i>”; replaced “not associated with a <i>pseudo-unit</i>” with “that is not a <i>pseudo-unit</i>”; replaced “a <i>price responsive load</i> that is not registered as a physical <i>hourly demand response resource</i>” with “a <i>price responsive load</i> that is not associated with load equipment registered as a physical <i>hourly demand response resource</i>”; replaced “a <i>price responsive load</i> registered as a physical <i>hourly demand response resource</i>” with “a <i>price responsive load</i> associated with load equipment that is registered as a physical <i>hourly demand response resource</i>”; removed “binding” prior to “<i>reliability constraint</i>” – word is unnecessary. <p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> For clarification, replaced instances of <i>electricity storage resources</i> and <i>self-scheduling electricity storage resources</i> “that are withdrawing or

Chapter	Section	Topic	Type of Change	Description
				<p>injecting”, with “that are registered to withdraw or inject”. The revised language clarifies that the reference to such storage <i>resources</i> are not based on whether the <i>resource</i> is withdrawing or injecting at a specific point in time, but rather their registration status which permits them to withdraw or inject.</p> <p>This change was made in response to stakeholder feedback.</p>
Chapter 9	2.1.5	Metering and Metering Responsibilities	Modified	<p>Deleted redundant language “with other <i>control areas</i>” as this concept is already included in the defined term “<i>interconnection agreement</i>”.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	2.1.5.3	Metering and Metering Responsibilities	Editorial	<p>Corrected typographical error – deleted errant/previous cross reference “3.1.9”.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	2.2.4.2	Station Service	Modified	<p>Replaced “<i>market participants</i> whose <i>facilities</i> are connected to” with “<i>market participants</i> whose <i>resources</i> are associated with” to further incorporate the defined term “<i>resource</i>”. The <i>settlement of connected station service</i> is at the <i>resource</i> level.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	2.2.9, 2.2.10	Station Service	Modified	<p>Modified the following in order to further incorporate the defined term “<i>resource</i>”:</p> <ul style="list-style-type: none"> • Replaced “<i>generation units</i>” with “<i>generation resources</i>”; • Replaced “<i>electricity storage units</i>” with “<i>electricity storage resources</i>”. <p>This change was made in response to internal feedback.</p>
Chapter 9	2.2.12, 2.2.13	Station Service	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Replaced “location” with the defined term “<i>delivery point</i>”;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Replaced "<i>generation unit</i> which is part of" with "<i>generation resource</i> associated with" to further incorporate the defined term "<i>resource</i>"; Replaced "<i>generation facility</i>" with "<i>generation resource</i> associated with that <i>generation facility</i>" to further incorporate the defined term "<i>resource</i>"; Replaced "<i>electricity storage unit</i>" with "<i>electricity storage resource</i> associated with" to further incorporate the defined term "<i>resource</i>"; Sections 2.2.12 and 2.2.13: inserted "and the application process described in the <i>applicable market manual</i>" to guide <i>market participants</i> to Market Manual 5.5 which specifies further steps on applying for the station service rebate. <p>This change was made in response to internal feedback.</p>
Chapter 9	2.3.2	Metering Data Recording and Collection Frequency	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Replaced "<i>self-scheduling electricity storage facilities</i>" with "<i>self-scheduling electricity storage resources</i>" to further incorporate the defined term "<i>resource</i>"; Replaced "<i>registered wholesale meters</i>" with "a <i>metering installation</i>". <p>This change was made in response to internal feedback.</p>
Chapter 9	2.4.4	Collection and Validation of Metering Data	Editorial	<p>Deleted the word "registered" prior to <i>metering installation</i> to delete unnecessary language.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	2.5	Delivery Points	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Editorial and grammatical changes to replace the singular "<i>registered wholesale meter</i>" to plural – "<i>registered wholesale meters</i>"; Streamlined the language in section 2.5.2 and replaced the concept of "associated with the <i>facility</i>" with "the <i>resource</i> associated with such <i>delivery point</i>" in order to further incorporate the defined term "<i>resource</i>".

Chapter	Section	Topic	Type of Change	Description
				This change was made in response to internal feedback.
Chapter 9	2.11.4	Settlement Record Retention, Confidentiality, and Reliability	Modified	<p>Within the context of settlement and supporting data for each <i>trading day</i> being made available by direct electronic means to the relevant <i>market participant</i>, replaced "as soon as the data becomes available" with "as soon as practicable after the data becomes available".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	3.1.1, 3.1.3, 3.1.6	Two-Settlement	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.1.1.1(b) – the previous listing of <i>market participant resource</i> types using the equations in sections 3.1.3 and 3.1.6 for the calculation of two-settlement was incomplete. Added to the listing of <i>resource</i> types "<i>non-dispatchable generation resources</i>, and <i>self-scheduling electricity storage resource</i> that are registered to inject"; sections 3.1.3 and 3.1.6 which specify the equations have been updated; Section 3.1.1.4(c) – for clarification, replaced "<i>price responsive loads</i>" with "<i>price responsive loads</i> associated with <i>load equipment</i>". <p>This change was made in response to internal feedback.</p>
Chapter 9	3.2, 3.2.1	Hourly Physical Transaction Settlement Amount – Non-Dispatchable Loads	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Editorial - in the title of "Hourly Physical Transaction Settlement Amount", changed "Non-Dispatchable Resources" to "Non-Dispatchable Loads"; Within the context of <i>hourly demand response resources</i> not registered as <i>price responsive loads</i>, inserted "that are not associated with <i>load equipment</i>". <p>This change was made in response to internal feedback.</p>
Chapter 9	3.2.4	Hourly Physical Transaction Settlement	Modified	Changes to the <i>non-dispatchable generation resources</i> formula:

Chapter	Section	Topic	Type of Change	Description
		Amount – Non-Dispatchable Loads		<ul style="list-style-type: none"> • Section 3.2.4 and 3.2.4.1 - Deleted the hourly physical transaction <i>settlement amount</i> for <i>non-dispatchable generation resources</i>; • <i>Non-dispatchable generation resources</i> and <i>self-scheduling electricity storage resources</i> that are registered to inject in the <i>day-ahead market</i> by submitting <i>dispatch data</i> indicating the amount of <i>energy</i> expected to be provided to the <i>day ahead market</i>; • The <i>IESO's</i> initial proposed implementation did not account for MW scheduled in the <i>day-ahead market</i> for these <i>resources</i>, and as such, they would be settled based on actual injection at RT LMP. This would be inconsistent with the design intent; • <i>Non-dispatchable generation resources</i> and <i>self-scheduling electricity storage resources</i> that are registered to inject should be subjected to two-settlement in order to account for the MW scheduled in the <i>day-ahead market</i>. <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p>
Chapter 9	3.3, 3.3.3.4, 3.3.4, 3.3.5	Day-Ahead Market Balancing Credit	Modified /New	<p>New eligibility rules for <i>energy traders</i> participating with <i>boundary entity resources</i>:</p> <ul style="list-style-type: none"> • Inserted new section 3.3.3.4 – similar to <i>energy transactions</i>, an <i>energy trader</i> participating with a <i>boundary entity resource</i> is ineligible for DAM BC for <i>operating reserve</i> when: • DAM PROR is equal to or greater than RT PROR; • Min(RT_OR_LOC_EOP, DAM_QSOR) is equal to or less than RT_QSOR • This aligns with the intent of the DAM BC to only provide compensation when the <i>IESO</i> curtails <i>operating reserves</i> relative to its DAM position; • Consequential to this change, updated the equation in sections 3.3.5(a), (b) and (c) for DAM_BCE and DAM_BCOR for import and export transactions respectively. <p>This change was presented to stakeholders at the September 21, 2023 Engagement Webinar.</p>

Chapter	Section	Topic	Type of Change	Description
				<p>In addition, the following minor corrections to the following variables and equations were made:</p> <ul style="list-style-type: none"> Sections 3.3.4 and 3.3.5 – replaced the variable “BCE” with “DAM_BCE”; replaced the variable “BCOR” with “DAM_BCOR”. <p>This change was made in response to internal feedback.</p>
Chapter 9	3.4, 3.4.4, 3.4.5	Day-Ahead Market Make-Whole Payment – Ineligibilities – dispatchable electricity storage resources, hydroelectric generation resources	Modified , New	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.4.6 - For clarity, replaced the phrase “have a binding combined cycle physical unit constraint” with “have a minimum constraint applied for combined cycle operation consistent with combustion turbine commitment”; Section 3.4.4.7(new) – inserted new ineligibility for the DAM MWP for <i>dispatchable electricity storage resources</i> for such <i>settlement hours</i> for which such <i>resource</i> is ineligible to receive a <i>day-ahead market</i> make-whole payment in accordance with MR Ch.7 s.21.4.3; Sections 3.4.5.1 and 3.4.5.2 – hydroelectric <i>generation resources</i> – clarified language by replacing “that do not share <i>forebays</i>” with “are not registered on the same <i>forebay</i> as one or more other <i>hydroelectric generation resources</i>”; replaced “that share a <i>forebay</i>” with “that are registered to a <i>forebay</i>”. <p>This change was made in response to internal feedback.</p>
Chapter 9	3.4.7 - 3.4.15	Day-Ahead Market Make-Whole Payment	Modified /Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.7 - Editorial change to heading to reflect the content of the section; Section 3.4.8 - Editorial change to heading to reflect the content of the section; Section 3.4.9 - Editorial change to heading to reflect the content of the section; editorial - inserted “the <i>day-ahead market</i> make-whole payment <i>settlement amount</i> is calculated as follows:”; Section 3.4.13.2(b)(iii) – added further clarity for the <i>forbidden region</i> set variable ‘Y’ by

Chapter	Section	Topic	Type of Change	Description
				<p>inserting "submitted by <i>market participant</i> 'k' for <i>delivery point</i> 'm' as daily <i>dispatch data</i>".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	3.5.2	Real-Time Make-Whole Payment - Ineligibilities	Modified , New	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 3.5.2(b) – for clarity, rephrased the language by replacing "<i>boundary entity resource</i>" with "an import or export transaction" and "associated <i>energy trader</i>"; • Section 3.5.2(h) – editorial change – replaced "pre-dispatch run" with "run of the <i>pre-dispatch calculation engine</i>"; • Section 3.5.2(i) new - inserted new ineligibility for the RT MWP for <i>dispatchable electricity storage resources</i> for such <i>settlement hours</i> for which such <i>resource</i> is ineligible to receive a real-time make-whole payment in accordance with MR Ch.7 s.21.4.3. <p>This change was made in response to internal feedback.</p>
Chapter 9	3.5.4	Real-Time Make-Whole Payment - Ineligibilities	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 3.5.4.1(b) - replaced "binding combined cycle physical unit constraint" with "minimum constraint applied for combined cycle operation consistent with combustion turbine commitment"; • Section 3.5.4.1(c)(ii) - hydroelectric <i>generation resources</i> – clarified language by replacing "that share <i>forebays</i>" with "are registered on the same <i>forebay</i> as one or more other <i>hydroelectric generation resources</i>"; replaced "that share a <i>forebay</i>" with "that are registered to a <i>forebay</i>"; • Section 3.5.4.1(c)(iii) - hydroelectric <i>generation resources</i> – clarified language by replacing "that do not share <i>forebays</i>" with "that are not registered on the same <i>forebay</i> as one or more other <i>hydroelectric generation resources</i>". <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9	3.5.6	Real-Time Make-Whole Payment for Dispatchable Generation Resources that are Not Pseudo-Units and Dispatchable Storage	Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> • Changed title – replaced “Not Associated with a Pseudo-Unit” with “that are Not Pseudo-Units”; added “and Dispatchable Storage”; • Section 3.5.6.1(a)(iii), 3.5.6.2(b)(iii) – for clarification, inserted “submitted by <i>market participant</i> ‘k’ for <i>delivery point</i> ‘m’ as daily <i>dispatch data</i>.” <p>This change was made in response to internal feedback.</p>
Chapter 9	3.5.7	Real-Time Make-Whole Payment for Dispatchable Loads	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 3.5.7 title – Changed title and inserted “and Dispatchable Electricity Storage Resources that are Registered to Withdraw”; • Section 3.5.7 - Inserted “or <i>dispatchable electricity storage resource</i> that is registered to withdraw”, as this section is applicable to such <i>electricity storage resources</i>; • Revised formulas for “RT_ELC”, “RT_ELOC”. <p>This change was made in response to internal feedback.</p>
Chapter 9	3.5.9	Real-Time Make-Whole Payment for Dispatchable Generation Resources that are Pseudo-Units	Editorial	<p>Changed title – replaced “Associated with a Pseudo-Unit” with “that are Pseudo-Units”.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	3.5.10	Real-Time Make-Whole Payment for Dispatchable Generation Resources that are Pseudo-Units	Modified	<p>Replaced “T_0” and “T_1” with “t_0” and “t_1”; deleted within the definition of these variables the wording “the set of all”.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	3.6	Real-Time Intertie Offer Guarantee	Modified	<p>Section 3.6.5.2(a) – for clarification, replaced “shall not exceed the <i>energy</i> quantity” to “shall not exceed the scheduled <i>energy</i> quantity”.</p>

Chapter	Section	Topic	Type of Change	Description
				This change was made in response to internal feedback.
Chapter 9	3.7.4	Real-Time Import Failure Charge	Modified	Section 3.7.4 – Replaced the formula for “RT_IMFC”. This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.
Chapter 9	3.7.6	Real-Time Export Failure Charge	Modified	Section 3.7.6 – Replaced the formula for “RT_EXFC”. This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.
Chapter 9	3.7A	Day-Ahead Market Intertie Failure Charge	New	Section 3.7A(new) – new formulas for the DAM import failure charge and DAM export failure charge. This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.
Chapter 9	3.8	Hourly Settlement Amounts for Transmission Rights	Editorial	Sections 3.8.1 and 3.8.2 – replaced “ <i>TR settlement credit settlement amount</i> ” with “ <i>transmission right settlement credit settlement amount</i> ”. This change was made in response to internal feedback.
Chapter 9	3.10	Operating Reserve Non-Accessibility Charge and Associated Reversal Charges	New	New section 3.10 on three settlement clawback modifications to align the principles of Operating Reserve Accessibility (ORA) with the Market Renewal Program design: <ul style="list-style-type: none"> • OR Standby Payment Claw-back for <i>dispatchable generator</i> and loads (revision to current market rules); • RT MWP clawback for the portion of OR that was inaccessible (new); • RT GOG clawback for the portion of OR that was inaccessible (new). This change, with sample calculations and examples was presented to stakeholders at the September 21, 2023 Engagement Webinar.
Chapter 9	3.11	Hourly Uplifts	Modified , New	Modified the following: <ul style="list-style-type: none"> • Section numbering changed from section 3.10 to 3.11; • Section 3.11.1(d) – for “RT_MWP”, inserted “as reduced by any RT_MWP_RC calculated in accordance with sections 3.10.2 for such <i>market</i>”

Chapter	Section	Topic	Type of Change	Description
				<p><i>participant, delivery point, and settlement hour</i>”;</p> <ul style="list-style-type: none"> Section 3.11.1(m) – inserted new variable “ORSCB”, the <i>operating reserve shortfall settlement debit settlement amount</i> to reflect hourly uplift modifications resulting from OR accessibility charges. <p>This change was made in response to internal feedback.</p>
Chapter 9	4.4	Day-Ahead Market Generator Offer Guarantee	Modified , New	<p>Modified the following:</p> <p>Throughout section 4.4:</p> <ul style="list-style-type: none"> Replaced “Day -1” to “Day 0” when referring to the day the <i>day-ahead market calculation engine</i> runs; Replaced “Day 0” to “Day 1” when referring to the <i>dispatch day</i>. <p>Section 4.4.6(d) – for clarification:</p> <ul style="list-style-type: none"> Inserted “is registered as a <i>pseudo-unit</i>”; Replaced “binding” with “minimum constraint applied for”; Replaced “physical unit constraint” with “operation consistent with combustion turbine commitment”. <p>Section 4.4.10 – replaced “the <i>IESO</i> required, in order to maintain the <i>reliability</i> of the <i>IESO controlled grid</i>” with “the <i>IESO</i> directed”.</p> <p>Section 4.4.25(b) (new) – inserted definition for variable “DAM_GOG_COMP4” with cross reference to section 4.4.18.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.5	Real-Time Generator Offer Guarantee	Modified	<p>Modified the following:</p> <p>Throughout section 4.5:</p> <ul style="list-style-type: none"> Replaced “Day -1” to “Day 0” when referring to the day the <i>day-ahead market calculation engine</i> runs;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Replaced "Day 0" to "Day 1" when referring to the <i>dispatch day</i>. <p>Section 4.5.6(d) – for clarification:</p> <ul style="list-style-type: none"> Inserted "is registered as a <i>pseudo-unit</i>"; Replaced "binding" with "minimum constraint applied for"; Replaced "physical unit constraint" with "operation consistent with combustion turbine commitment". <p>Section 4.5.15 – RT_GOG Component#1 – edited formula to replace "RT_CMT_DIPC" with "RT_DIPC";</p> <p>Section 4.5.16 - RT_GOG Component#2 – edited formula to replace "RT_OR_CMT_DIPC" with "RT_OR_DIPC";</p> <p>Section 4.5.17 - RT_GOG Component#3 – edited formula to replace "RT_CMT_DIPC" with "RT_DIPC".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.8.3	Real-Time External Congestion Residual	Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> Sections 4.8.3, 4.8.4 – inserted "uplift" – "external congestion residual uplift settlement amount"; Section 4.8.7 – inserted "uplift" – "net interchange scheduling limit residual uplift settlement amount". <p>This change was made in response to internal feedback.</p>
Chapter 9	4.9	Transmission Rights Clearing Account Disbursements	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> 4.9.2.2(d), (e), (f): for variable "TRCAD", inserted "(in \$ and up to 2 decimal places)"; 4.9.2.2(h) – inserted "the set of all" prior to "<i>intertie metering points</i>". <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9	4.10	Generator Failure Charge	Modified	<p>Modified the following:</p> <p>Section 4.10.1(a), (b):</p> <ul style="list-style-type: none"> clarified the meanings of 'T' and 'T1' by inserting "combustion turbine <i>generation unit delivery point`c`</i>, or steam turbine <i>generation unit delivery point`s`</i>, as applicable; For 'T', inserted reference to the <i>generator failure</i> time period being defined in "the applicable <i>market manual`</i>"; For "T1", reworded for clarity. <p>Section 4.10.6(f) – for clarity, inserted "for <i>market participant`k`</i> at <i>delivery point`m`</i> for <i>generator failure`f`</i>, and".</p> <p>Section 4.10.9 – deleted "T" and its corresponding definition, which is redundant and incorporated in the global definition of "T" in section 4.10.1.</p> <p>Section 4.10.10(e) and 4.10.11(e) – "PD_SU_Ratio" – clarified definition by replaced "prorated" with "prorating factor for <i>market participant`k`</i> at combustion turbine <i>delivery point`c`</i> for <i>generator failure`f`</i>".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.11	Fuel Cost Compensation Credit	Modified	<p>Section 4.11.2.1 – replaced "to achieve its <i>minimum loading point</i> in accordance with its <i>day-ahead operational commitment</i> or <i>pre-dispatch operational commitment`</i>" with "to achieve and maintain its <i>minimum loading point</i> for the duration of its <i>day-ahead operational commitment</i> or <i>pre-dispatch operational commitment`</i>".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9	4.13	Capacity Obligations	Modified , New	<p>Note: Existing section 4.7J – Capacity Obligations has been moved to new section 4.13. Tracked changes have been shown for incremental MRP related amendments to the existing language in 4.7J.</p> <p>Modified the following:</p>

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> • Renumbered all sections with move from existing section 4.7J to new section 4.13; • Replaced several instances of "<i>capacity auction</i>" with "<i>capacity obligation</i>"; • Replaced all instances of "<i>day-ahead commitment process</i>" with "<i>day-ahead market</i>"; • Replaced all instances of "<i>settlement hours</i>" with "<i>settlement hours`h`</i>"; • Replaced all instances of "<i>real-time energy market</i>" with "<i>real-time market</i>"; • Editorial – All formulas - replaced "MAX" with "Max"; • Section 4.13.2.1(c) – for clarification, inserted "in either the <i>day-ahead market</i> or <i>real-time market</i>"; inserted "during the relevant <i>availability window</i>"; • Section 4.13.2.2(b) – for clarity, inserted "failed to" prior to "maintain"; editorial change to variable "CAEO"; • Section 4.1.2.2(c) – replaced "<i>pre-dispatch hour</i>" with "<i>pre-dispatch process</i>"; • Section 4.13.3.1(b) – replaced "AQEW" with "its allocated quantity of <i>energy withdrawn</i>"; • Section 4.13.9 – editorial - replaced "<i>capacity obligation buy-out settlement amount</i>" with "<i>capacity obligation buy-out charge settlement amount</i>"; deleted 'tm' because already defined as part of the relevant variable; • Section 4.13.11.2 – formula for "CAEOP" – replaced "HOEP" with "DAM_LMP²" and limited to those HDR resources that are not also registered as PRLs; • Section 4.13.11.3 – inserted new section for <i>capacity market participants</i> participating with an <i>hourly demand response resource</i> that is associated with <i>load equipment</i> registered as a <i>price responsive load</i> with corresponding equation for "CAEOP" that uses "RT_LMP" instead of HOEP; • Section 4.13.12 – replaced "<i>capacity market participant offered an amount of capacity</i>" with "the lowest quantity of <i>capacity offered</i> in the <i>day-ahead market, pre-dispatch process, and real-time market</i> by the <i>capacity market participant</i>";

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> • Section 4.13.12(a) – inserted “or <i>inertie metering point</i>”; • Section 4.13.12(b) – for “UCAP Adjustment’ - replaced “based on the <i>hourly demand response resource’s</i> delivered performance during a <i>capacity auction capacity test</i> performed during the relevant <i>obligation period</i>, as determined in accordance with the applicable <i>market manual</i>’ with a reference to section 4.13.8; • Section 4.13.12(f) – deleted ‘tm’ beacuse it is already defined as part of the relevant variable; • Section 4.13.14.1 – editorial – replaced “*” with multiplication symbol “x”. <p>This change was made in response to internal feedback.</p>
Chapter 9	4.14	Non-Hourly Uplifts	Modified	<p>Modified the following:</p> <p>Generator Failure Charge – Guarantee Cost Component Uplift</p> <ul style="list-style-type: none"> • Section 4.14.1 – inserted “<i>electricity storage resources</i> that are registered to withdraw”. <p>Real-time Generator Offer Guarantee uplift</p> <ul style="list-style-type: none"> • Section 4.14.2 – inserted “<i>electricity storage resources</i> that are registered to withdraw”; • Section 4.14.2 – equation updated to include RT_GOG_CB to ensure amounts uplifted are net the amount recovered by the clawback. (c) was added to define RT_GOG_CB as the amount calculated pursuant to section 3.10.3. <p>Day-Ahead Market Uplift</p> <ul style="list-style-type: none"> • Section 4.14.3 – inserted “<i>electricity storage resources</i> that are registered to withdraw”. <p>Day-Ahead Market Reliability Scheduling Uplift</p> <ul style="list-style-type: none"> • Section 4.14.4 – inserted “<i>electricity storage resources</i> that are registered to withdraw”. <p>DAM Reliability Scheduling Uplift</p> <ul style="list-style-type: none"> • Section 4.14.5 – for clarification, inserted “but were not schedule in Pass 1: Market Commitment and Market Power Mitigation Pass”;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 4.14.6(b), 4.14.7(b) – replaced “DAM_EOP” with “DAM_OR_EOP”. <p>Fuel Cost Compensation Uplift</p> <ul style="list-style-type: none"> Section 4.14.8 – inserted “<i>electricity storage resources</i> that are registered to withdraw”. <p>Mitigation Amount for Physical Withholding Uplift</p> <ul style="list-style-type: none"> Section 4.14.9 – inserted “<i>electricity storage resources</i> that are registered to withdraw”. <p>Mitigation Amount for Intertie Economic Withholding Uplift</p> <ul style="list-style-type: none"> Section 4.14.10 – inserted “<i>electricity storage resources</i> that are registered to withdraw”. <p>Real-Time Ramp-Down Settlement Amount Uplift</p> <ul style="list-style-type: none"> Section 4.14.11 - inserted “<i>electricity storage resources</i> that are registered to withdraw”; Section 4.14.11 – replaced “RTRDSA” with “RT_RDSA”. <p>This change was made in response to internal feedback.</p>
Chapter 9	5	Market Power Mitigation	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Throughout section 5 – variable “MWs Failed” - added “in accordance with the following”, and added condition (a), otherwise (b); Section 5.2.1 – Modified equation for “DAM_RLSC” – deleted “x PM_RLSC”; Section 5.2.1.1.3 – for clarification, inserted “where either of the following conditions is true:”, and split language into conditions (a) and (b); Section 5.3.1 – Modified equation for “RT_RLSC” – deleted “x PM_RLSC”; Section 5.3.1.1.3 – for clarification, inserted “where either of the following conditions is true:”, and split language into conditions (a) and (b); Section 5.4.1 – corrected cross-reference by replacing “22.15.26” to “22.15.25”; Section 5.4.1.1(c) – corrected subscripts in “DAM_LMP”; Section 5.4.1.1(c)(ii)(b) – typographical error - replaced “<i>alternate reference quantity value</i>”

Chapter	Section	Topic	Type of Change	Description
				<p>with "<i>alternative reference quantity value</i>"; corrected subscripts in "RT_LMP";</p> <ul style="list-style-type: none"> • section 5.5.1.1(b) and (c), 5.5.1.1(c) – Corrected subscripts for "DAM_LMP" and "RT_LMP". <p>This change was made in response to internal feedback.</p>
Chapter 9	6	Settlement Statements	Modified , New	<p>Modified the following:</p> <ul style="list-style-type: none"> • section 6.3.28 – inserted "and, if so, the revised payment dates"; • section 6.3.29 – replaced "equal to the aggregate of" with "determined in accordance with the following"; • Section 6.3.29.1 – inserted "in regards to the amount referred to in section 6.4.2.1, the amount shall be equal to the aggregate of:" and moved content from previous 6.3.29.1 to section 6.3.29.1.1; • Section 6.3.29.2 (new) – inserted new section; • Section 6.3.30 – revised cross reference to 6.3.29.1; • Section 6.4.2.2, 6.5.2.3 – deleted "or sale". <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendices	Throughout	All	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • For clarification, replaced "combustion turbines" with "combustion turbine <i>generation units</i>"; replaced "steam turbine" with "steam turbine <i>generation units</i>"; • For the variables listing in all sections – added further specificity by replacing "in MWh" with "in MWh and up to 1 decimal place or up to 2 decimal places" as applicable; added "in \$ and up to 2 decimal places", "in MWh and up to 1 decimal place", etc; • Replaced instances of "the <i>day-ahead commitment process</i>" with "the <i>day-ahead market</i>". <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9, Appendix 9.2	1	General/Overview	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 1.1.1 – editorial - replaced “spinning and non-spinning <i>ten-minute operating reserve</i>” with “synchronized and non-synchronized <i>ten-minute operating reserve</i>”; Section 1.1.3 (move) – moved sections defining operating regions ‘d’ (d1, d2, d3) from Appendix 9.3 section 1.1.1.1 to Appendix 9.2 section 1.1.3. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.2	3	Day-Ahead Market Variables, Data and Information	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.1.14 – replaced “<i>day-ahead calculation engine</i>” with “applicable calculation engine”; section 3.4 – replaced cross reference to “the applicable <i>market manual</i>” with “MR Ch.7 App.7.8 s.2.6”; section 3.4.5 – replaced “where r1, r2, and r3 are all applicable” with “where only r2 and r3 are applicable”. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.2	4	Pre-Dispatch Variables, Data and Information	Modified, New	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 4.1.11 (new) – inserted new variable “PD_LMP”; Section 4.2.10 (new) – inserted new variable “PD_BE_SNL” – <i>speed no-load offer</i>. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.2	5	Real-Time Market Variables, Data and Information	Modified, New	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 5.1 – deleted “as may be modified by the <i>IESO</i>”; Section 5.1.5 – replaced “RT_ST_Portion” with “ST_Portion_INT”; replaced ‘d’ with ‘d1’; Section 5.4 – replaced “in accordance with the applicable <i>market manual</i>” with “in accordance with MR Ch.7 App.7.8 s.3.5” and “s4.5” as applicable;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 5.4.18 (new) – inserted new variable "RT_STP_QSOR"; Section 5.4.21 – deleted "RT_CMT_DIPC". <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.2	8	Allocated Quantities	Modified , New	<p>Section 8.1.6 (new) – inserted new variable "GSSR_AQEW".</p> <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.2	11	Capacity Auction	Modified , New	<p>Note: Existing section 3.1.10 of Chapter 9 – Capacity Auctions has been moved to new section 11 of Appendix 9.2. Tracked changes have been shown for incremental MRP related amendments to the existing language in section 3.1.10.</p> <p>Modified the following:</p> <ul style="list-style-type: none"> Section 11.1.3 – replaced "<i>real-time energy market</i>" with "<i>real-time market</i>"; Section 11.1.5 – replaced cross reference "section 4.7J.3 of Chapter 9" with "MR Ch.9 s. 4.1.3.9"; Section 11.1.8 – inserted "within the relevant <i>obligation period</i>"; replaced "as listed in Section 7.1 of Market Manual 12" with "as listed in the applicable <i>market manual</i>"; Section 11.1.9 – replaced "<i>pre-dispatch</i>" with "<i>pre-dispatch process</i>"; replaced "<i>real-time energy market</i>" with "<i>real-time market</i>"; Section 11.1.14 – inserted "in accordance with MR Ch.9 s.4.13.7.1". <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.3	1.1	Introduction/ General	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 1.1.1.1 (move) – moved section defining operating regions 'd' (d1, d2, d3) from Appendix 9.3 section 1.1.1.1 to Appendix 9.2 section 1.1.3. <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9, Appendix 9.3	1.2	Day-Ahead Market - Energy	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 1.2.1.11 – edited variable and equation – replaced “DAM_DIGQ” with “DAM_QSI_DIGQ”, corrected subscripts in “QSI”. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.3	1.5	Real-Time Market - Energy	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 1.5.1.4 – replaced “RT_ST_Portion” with “ST_Portion”; Previous sections 1.5.1.6 and 1.5.1.7 – deleted “RT_LC_EOP_DRRQ” and “RT_LOC_EOP_DRRQ” formulas – formulas and variables are not required for the calculation; Section 1.5.1.6 – with above deletion, renumbered previous section 1.5.1.8 to 1.5.1.6 – replaced variable “RT_ST_Portion” with “ST_Portion” and revised formula accordingly; Section 1.5.1.12 – deleted table, and replaced with formula for “RT_DIPC”; Section 1.5.1.13 – corrected subscript for “RT_QSI_DIGQ” and updated formula; Section 1.5.1.14 - corrected subscript for “RT_STP_QSI” and updated formula. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.3	1.6	Real-Time Market – Operating Reserve	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 1.6.1.1 - corrected subscript for “OR_RT_DRRQ” and replaced “RT_ST_Portion” with “ST_Portion” - updated formula accordingly; Section 1.6.1.3 – replaced variable “RT_ST_Portion” with “ST_Portion”, and updated formula accordingly; Section 1.6.1.7 – deleted table, and replaced with formula for “RT_OR_DIPC”; Section 1.6.1.10 – corrected subscripts for “RT_OR_CMT_DIGQ” and “RT_STP_QSOR”. <p>This change was made in response to internal feedback.</p>

Chapter	Section	Topic	Type of Change	Description
Chapter 9, Appendix 9.4	1, 1.1	Introduction - Interpretation	Modified , New	<p>Section 1.1.1.3 (new) – inserted new section which specifies the conduct tests in order of their restrictiveness, for the purpose of determining which conduct test applies for a specific <i>settlement hour</i>.</p> <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.4	2.2	Day-Ahead Market Mitigation – Constrained Area Conditions	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 2.2.2.1 – inserted “or any <i>resource</i> meets the conditions outlined in ss.2.3.2.2 or 2.3.2.3”; • Section 2.2.2.2 – inserted “or any <i>resource</i> meets the conditions outlined in ss.2.3.3.2 or 2.3.3.3”; • Section 2.2.2.3 – inserted “or any <i>resource</i> meets the conditions outlined in ss.2.3.4.2 or 2.3.4.3”; • Section 2.2.2.4 – inserted “or any <i>resource</i> meets the conditions outlined in ss.2.3.5.2”; • Section 2.2.3.1 – inserted “or any <i>resource</i> meets the conditions outlined in ss.2.3.7(b)”; • Section 2.2.3.2 – inserted “or any <i>resource</i> meets the conditions outlined in ss.2.3.8(b)”. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.4	2.3	Applicable Resources	Modified , New	<p>Modified the following:</p> <ul style="list-style-type: none"> • Inserted new section 2.3.2.2 to specify an additional conduct test; • Moved content from previous section 2.3.2.2 to 2.3.2.3; • Section 2.3.2.3 – for clarity, inserted “is part of a <i>narrow constrained area</i> and”; replaced “greater than -0.02” with “that is less than -0.02”; inserted “except for when the difference between the flow and constraint value is less than or equal to 10MW”; • Inserted new section 2.3.3.2 to specify an additional set of <i>resources</i> subject to the conduct test; • Moved content from previous section 2.3.3.2 to 2.3.3.3;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> • Section 2.3.3.3 - for clarity, inserted "is part of a <i>dynamic constrained area</i> and"; replaced "greater than -0.02" with "that is less than -0.02"; inserted "except for when the difference between the flow and constraint value is less than or equal to 10MW"; • Section 2.3.4.2 - replaced "and the congestion component of the applicable <i>locational marginal price</i> is greater than \$0/MWh on any binding constraint" with "where any binding constraint"; inserted "causes an increase in the congestion component of the <i>resource's day-ahead market locational marginal price</i>"; • Section 2.3.4.3 - replaced "greater than -0.02" with "that is less than -0.02"; inserted "except for when the difference between the flow and constraint value is less than or equal to 10MW"; • Section 2.3.7(b) – constrained area condition test for local market power mitigation for <i>operating reserve</i> – replaced "all <i>resources</i> that have a <i>day-ahead schedule</i> for <i>operating reserve</i> whom are located in a region with a binding maximum constraint" with "all <i>resources</i> that meet the condition outlined in MR Ch.7 App7.5 s.10.6.1.3"; • Section 2.3.8(b) – constrained area condition test for global market power mitigation for <i>operating reserve</i> – replaced "all <i>resources</i> that have a <i>day-ahead schedule</i> for <i>operating reserve</i> whom are located in a region with a binding maximum constraint" with "all <i>resources</i> that meet the condition outlined in MR Ch.7 App7.5 s.10.7.3". <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.4	2.4	Conduct Test	Modified , New	<p>Modified the following:</p> <ul style="list-style-type: none"> • Section 2.4.1 – for the purposes of the conduct tests set out in section 2.4, inserted two new subsections (a) and (b) specifying two conditions; • All sections - replaced "<i>day-ahead market commitment period</i>" with the correct defined term "<i>day-ahead commitment period</i>";

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 2.4.14 – replaced “as determined in accordance with the applicable <i>market manual</i>” with “in accordance with section 1.1.1.3”. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.4	3.2	Constrained Area Conditions	Modified	<p>Modified the following:</p> <p>Constrained Area Condition Test for a Narrow Constrained Area:</p> <ul style="list-style-type: none"> Section 3.2.2.1(b) – inserted “or any <i>resource</i> meets the conditions outlined in 3.3.2.3 or 3.3.2.4”; <p>Constrained Area Condition Test for a Dynamic Constrained Area:</p> <ul style="list-style-type: none"> Section 3.2.2.2(b) – inserted “or any <i>resource</i> meets the conditions outlined in 3.3.3.3 or 3.3.3.4”; <p>Constrained Area Condition Test for a Broad Constrained Area</p> <ul style="list-style-type: none"> Section 3.2.2.3(b) – inserted “or any <i>resource</i> meets the conditions outlined in 3.3.4.2 or 3.3.4.3”; <p>Constrained Area Condition Test for Global Market Power Mitigation for Energy:</p> <ul style="list-style-type: none"> Section 3.2.2.4(c) – replaced “when the following circumstances is true more than two hours prior to the ‘pdi’ pre-dispatch run” and subsection (i), with “when any resource meets the conditions outlined in 3.3.5.2 or 3.3.5.3”; <p>Constrained Area Condition Test for Local Market Power Mitigation for Operating Reserve:</p> <ul style="list-style-type: none"> Section 3.2.3.1 – inserted “or any <i>resource</i> meets the conditions outlined in 3.3.7(b).”; <p>Constrained Area Condition Test for Global Market Power Mitigation for Operating Reserve:</p> <ul style="list-style-type: none"> Section 3.2.3.2 – inserted “or any <i>resource</i> meets the conditions outlined in 3.3.8.2, 3.3.8.3, or 3.3.8.4”.

Chapter	Section	Topic	Type of Change	Description
				This change was made in response to internal feedback.
Chapter 9, Appendix 9.4	3.3	Applicable Resources	Modified	<p>Modified the following:</p> <p>Constrained Area Condition Test for a Narrow Constrained Area:</p> <ul style="list-style-type: none"> Section 3.3.2.3 – inserted “is part of a <i>narrow constrained area</i>, that”; replaced “and the congestion component of the applicable <i>locational marginal price</i> is greater than \$0/MWh on any <i>narrow constrained area</i> binding constraint” with “where any binding constraint from the same <i>narrow constrained area</i> causes an increase in the congestion component of the <i>resource’s real-time market location marginal price</i>”; Section 3.3.2.4 - inserted “is part of a <i>narrow constrained area</i> and”; replaced “greater than 0.02” with “that is less than -0.02”; replaced “and the following condition is true” with “and such constraint would have been binding or would have been violated but for the <i>pre-dispatch operational commitment</i> received by the <i>resource</i> except for when the difference between the flow and constraint value is less than or equal to 10MW.”; deleted formula and “where” clause. <p>Constrained Area Condition Test for a Dynamic Constrained Area:</p> <ul style="list-style-type: none"> Section 3.3.3.3 – inserted “is part of a <i>dynamic constrained area</i>, that”; replaced “and the congestion component of the applicable <i>locational marginal price</i> is greater than \$0/MWh on any <i>dynamic constrained area</i> binding constraint” with “and where any binding constraint from the same <i>dynamic constrained area</i> causes an increase in the congestion component of the <i>resource’s real-time market locational marginal price</i>”; Section 3.3.3.4 – inserted “is part of a <i>dynamic constrained area</i> and”; replaced “greater than 0.02” with “that is less than -0.02”; inserted “except for when the difference between the flow and constraint value is less than or equal to 10MW.”;

Chapter	Section	Topic	Type of Change	Description
				<p>Constrained Area Condition Test for a Broad Constrained Area:</p> <ul style="list-style-type: none"> Section 3.3.4.2 – replaced “and congestion component of the applicable <i>locational marginal price</i> is greater than \$0/MWh on any binding constraint” with “and where any binding constraint”; inserted “causes an increase in the congestion component of the <i>resource’s real-time market locational marginal price</i>”; Section 3.3.4.3 –replaced “greater than 0.02” with “that is less than -0.02”; inserted “except for when the difference between the flow and constraint value is less than or equal to 10MW.”; <p>Constrained Area Condition Test for Local Market Power Mitigation for Operating Reserve:</p> <ul style="list-style-type: none"> Section 3.3.7(b) – replaced “that have a <i>real-time market schedule for operating reserve</i> whom are located in a region with a binding maximum constraint” with “that meet the condition outlined in MR Ch.7 App7.5 s.10.6.2”; <p>Constrained Area Condition Test for Global Market Power Mitigation for Operating Reserve:</p> <ul style="list-style-type: none"> Section 3.3.8.3 – replaced “that have a <i>real-time market schedule for operating reserve</i> whom are located in a region with a binding maximum constraint” with “that meet the condition outlined in MR Ch.7 App7.5 s.10.7.3”. <p>This change was made in response to internal feedback.</p>
Chapter 9, Appendix 9.4	3.4	Conduct Test	Modified	<p>Modified the following:</p> <ul style="list-style-type: none"> Section 3.4.1 – for the purposes of the conduct tests set out in section 3.4, inserted two new subsections (a) and (b) specifying two conditions; All sections - replaced “<i>pre-dispatch commitment period</i>” with “<i>real-time commitment period</i> and/or <i>real-time reliability commitment period</i>”; Section 3.4.3 – replaced cross reference to “section 3.3.2” with “ss.3.3.2.2 to 3.3.2.4”;

Chapter	Section	Topic	Type of Change	Description
				<ul style="list-style-type: none"> Section 3.4.5 - replaced cross reference to "section 3.3.3" with "ss.3.3.3.2 to 3.3.3.4"; Section 3.4.6.1(a)(ii) – in the equation, replaced "+25" with "+100"; Section 3.4.7 - replaced cross reference to "section 3.3.4" with "sections 3.3.4.2 to 3.3.4.3"; Section 3.4.7.1(a)(ii) - in the equation, replaced "+25" with "+100"; Section 3.4.9 – replaced cross reference to "section 3.3.5" with "ss.3.3.5.2 or 3.3.5.3"; Section 3.4.14 – replaced cross reference to "with the applicable <i>market manual</i>" to "with section 1.1.1.3". <p>This change was made in response to internal feedback.</p>

Market Manuals – Market Registration

Summary of Changes to Market Manual 1.5 – Market Registration Procedures: December 1, 2022

Market Manual Section	Type of Change	Description
2.2.1 Submission Requirements	Modification	Reinstated the erroneously deleted content regarding <i>Ontario Energy Board</i> license requirements.
3.3 Registration of Resources for Generators, Table 3-4	Modification	Added the new <i>cascade group</i> , <i>forebay</i> , and <i>time lag</i> sections to the table of <i>resource</i> data parameter requirements. These parameters replace the previous <i>shared daily energy limit</i> and <i>time lag</i> parameters.
3.3.1.3 Quick Start Flag	Modification	Updated content to reflect new defined terms for <i>GOG-eligible resources</i> .
3.3.2 Dispatchable Hydroelectric	Editorial	Updated paragraph to be more concise.

Market Manual Section	Type of Change	Description
Generation Resource Registration Requirements		
3.3.2.2 Start Indication Value	Modification	Updated to clarify that <i>start indication value</i> parameter is submitted per <i>generation unit</i> and not per <i>resource</i> .
3.3.2.3 Hourly Must Run Flag	Editorial	Updated paragraph to be more concise.
3.3.2.4 Cascade Group and Forebay	Modification	<p>Updated header from "Shared Daily EnergyLimit" to "Cascade Group and Forebay".</p> <p>Updated section to reflect the change from registering a <i>shared daily energy limit</i> flag with <i>resource</i> IDs to two new identifiers called '<i>cascade group</i>' and '<i>forebay</i>'. These new parameters will enable shared <i>maximum daily energy limit</i> and <i>minimum daily energy limit dispatch data</i>.</p>
3.3.2.5 Time lag	Modification	Updated <i>time lag</i> to apply to <i>forebays</i> instead of <i>resources</i> . Updated to indicate the required <i>market participant time lag</i> submissions between adjacent <i>forebays</i> , and the <i>IESO</i> calculation for non-adjacent <i>forebays</i> .
3.3.3.1 Elapsed Time to Dispatch	Modification	Updated content to reflect new defined terms for <i>GOG-eligible resources</i> .
3.3.5 Requirements for Generator Offer Guarantee Status	Modification	<p>Updated content to reflect new defined terms for <i>GOG-eligible resources</i>.</p> <p>Updated content to remove the <i>market participant</i> request to be <i>GOG-eligible</i>. All <i>resources</i> that have the required approved registration parameters will automatically be <i>GOG-eligible resources</i>.</p>
3.6.1 Resource Compliance Aggregation	Modification	Updated the term <i>facility</i> to <i>resource</i> where appropriate to reflect the process.
List of Acronyms	Modification	Updated GOG to be 'Generator' instead of 'Generation' Offer Guarantee

Summary of Changes to Market Manual 1.5 – Market Registration Procedures: April 2023

Market Manual Section	Type of Change	Description
All	Modification	<p>Modified the following:</p> <ul style="list-style-type: none"> • Updated section references; • Updated market rule referencing formatting to the new market rule reference convention. <p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> • Made editorial changes related to spaces, acronym usage etc. <p>These changes were made in response to internal and external feedback.</p>
3.3.2	Modification	<p>Deleted "hydroelectric" from "This section applies to <i>dispatchable hydroelectric generation resources</i> with a primary fuel type of Water."</p> <p>This change was made in response to written feedback from OPG (comment id 50).</p>
3.3.2.5 Time lag	Modification	<p>Updated to clarify which <i>time lag</i> values are the required <i>market participant time lag</i> submissions between adjacent <i>forebays</i>, and which are the <i>IESO</i> calculations for non-adjacent <i>forebays</i>.</p> <p>This change was made in response to written feedback from OPG (comment id 51).</p>
3.3.2	Modification	<p>The labels in Figure 3-3 were updated to reflect <i>market participant time lag</i> submissions and the <i>IESO</i>-calculated <i>time lag</i> values.</p> <p>This change was made in response to feedback from OPG (comment id 51).</p>

Market Manuals – Transmission Rights Auction

Summary of Changes to Market Manual 4.4: Transmission Rights Auction - December 1, 2022

This is an existing *market manual* that has been updated for MRP.

This *market manual* provides registered *Transmission Rights (TR) participants* with the information necessary for the:

- posting of a *TR market deposit* for the *TR market*; and
- submitting of *TR bids* in the *TR market*.

It also describes the operation of the *TR market*, the *TR auctions* and the *publication* of the results of the *TR auction* by the *IESO*. The procedures described in this *market manual* reflect the requirements set out in the *market rules* and applicable *IESO* policies and standards.

Market Manual Section	Type of Change	Description
1 Introduction	Editorial	Grammar and formatting changes are applied in this section and updated references to the appropriate <i>settlements market manuals</i> as the current <i>settlements market manual</i> references were restructured and contains updated titles and numbering
2 Transmissions Rights Overview	Modification	Updated content to reflect the future <i>Transmission Rights (TR) market</i> where TRs are used to hedge the <i>day-ahead market</i> external congestion costs that arise from binding import and export transmission limits at an <i>intertie zone</i> . Added content to clarify that TRs cannot be used to hedge <i>intertie congestion prices</i> in the <i>real-time market</i> nor any other component of <i>intertie congestion prices</i> in the <i>day-ahead market</i> .
2.1 TR Market	Modification	Updated content to indicate that TR <i>settlement</i> will be now be resulting from the external congestion component of the <i>intertie congestion price</i> for a particular <i>intertie zone</i> in the <i>day-ahead market</i> . Also, updated content to indicate that pre-auction reports will contain information pertaining to the <i>day-ahead market</i> . Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i> .

Market Manual Section	Type of Change	Description
2.2 Day-Ahead Market Input	Modification	Updated section heading to "Day-Ahead Market Input" from "Pre-dispatch Input" and changed reference to congestion rents to <i>day-ahead market external congestion rents</i> to indicate TR <i>settlement</i> will only be based on the external congestion component of the <i>intertie congestion price</i> . <i>Day-ahead market external congestion rents</i> is now a defined term.
2.2.2 Determining Financial Upper Limit	Modification	Modified references to congestion rents to say <i>day-ahead market external congestion rents</i> .
2.3 TR Market Deposits for TR Auctions	Modification	Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i> .
2.4 TR Bid Data Requirements	Modification	Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i> .
3 Auctions of Short-Term and Long-Term TRs	Modification	Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i> .
3.1 Submission of TR Bids	Modification	Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i> .
3.2 Determination and Publication of TR Auction Results	Modification	Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i> .
4 Settlement of Awards	Modification	Updated reference to Market Manual 5.7: Financial Markets Settlement Statements to Market Manual 5.8: Settlement Invoicing to reflect the new change of merging <i>market manual</i> 5.7 and 5.8 in to the new <i>market manual</i> 5.8: Settlement Invoicing.
4.1 Default in Payment	Modification	Updated all references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i>

Market Manual Section	Type of Change	Description
4.2 Payments to TR Holders	Modification	<p>Updated references to Market Manual 5.5 to Market Manual 5.11: Settlement Amounts Associated with the IESO-Administered Markets as market manual 5.5 will be obsolete and restructure to <i>market manual 5.11</i>.</p> <p>Updated content to indicate that TR <i>settlement</i> will be zero for cases where there is a <i>planned outage</i> or <i>forced outage</i> to an interconnection.</p>
4.2.1 Day-Ahead Market Failure	Addition	Added content describing the process following the determination of a <i>day-ahead market</i> failure or suspension along with adding in the relevant <i>market rule</i> reference.
Appendix B	Modification	Modified content to indicate titles of all relevant pre-auction reports and include the appropriate chapter 8 section 3 <i>market rule</i> references for additional details relating to the pre-auction reports.
Appendix C	Modification	<p>Updated content to reflect the new method of calculating congestion rents collected by the <i>IESO</i> on the <i>interties</i> i.e. the amount collected by the <i>IESO</i> will now be a price difference resulting from external congestion between the <i>locational marginal price</i> and the <i>intertie border price</i> at a particular <i>intertie zone</i> in the <i>day-ahead market</i>.</p> <p>Modified references to congestion rents to the defined term of <i>day-ahead external congestion rents</i>.</p>
Appendix D, D.1 Determining Transmission Transfer Capability	Modification	<p>Grammar and formatting changes are applied in this section.</p> <p>Updated content to reflect that <i>intertie</i> scheduling will occur in the day-ahead timeframe and not the pre-dispatch timeframe</p>
Appendix E TR Auction Results	Modification	<p>Updated content to only include reference to the two relevant <i>TR auction</i> result reports along with the relevant chapter 8 section 3 <i>market rule</i> reference.</p> <p>Removed all additional details so as to not reiterate what is already described in the indicated <i>market rule</i> chapter 8 section 3 reference.</p>
Appendix F TR Market Deposits	Modification	Updated references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i>

Market Manual Section	Type of Change	Description
Appendix G Summary of Transmission Rights	Modification	<p>Updated content to indicate that TR <i>settlement</i> will now be based on the external congestion component of the <i>intertie congestion price</i> in the <i>day-ahead market</i> and TR <i>settlement</i> price will now be equal to the external congestion price at the <i>intertie</i> in the <i>day-ahead market</i>.</p> <p>Added in references to chapter 8 section 3 of the <i>market rules</i> for details pertaining to TR payout process.</p> <p>Added in content and relevant chapter 8 section 3 <i>market rule</i> reference regarding the TR <i>settlement</i> process when there is a <i>day-ahead market</i> suspension.</p>
Appendix H TRA Contingency Procedures	Modification	Updated references to chapter 8 section 4 of the <i>market rules</i> to chapter 8 section 3 to reflect the deletion of section 4 chapter 8 of the <i>market rules</i>
List of Acronyms	Modification	<p>Added the following acronyms:</p> <ul style="list-style-type: none"> • DAM: Day-Ahead Market • LMP: Locational Marginal Price • TTC: Total Transfer Capability <p>Removed Following acronyms:</p> <ul style="list-style-type: none"> • EMP: Energy Market Price • ICP: Intertie Congestion Price

Summary of Changes to Market Manual 4.4: Transmission Rights Auction - April 2023

Market Manual Section	Type of Change	Description
Throughout	Editorial	<p>Modified the following:</p> <ul style="list-style-type: none"> • Minor grammatical, typographical changes; • <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention.
1.2 Scope	Modification	<p>Updated to reflect the correct market manual title, "MM 5.5: IESO-Administered Markets Settlement Amounts" and deleted, "MM 5.5 Settlement Amounts Associated with the IESO Administered Markets".</p> <p>This change was made in response to feedback from OPG (comment id 62).</p>
2.2.4 Determining Maximum TR	Modification	Updated the note to delete "account" and inserted "ensure the TR base quantity and the financial upper limit are not exceeded when accounting".

Market Manual Section	Type of Change	Description
Offered for Long-term Auctions		
3 Auctions of Short-Term and Long-Term TRs	Modification	Inserted "Market Calendars" to be provide a more specific location for the <i>TR auction</i> schedule.
4.2 Payments to TR Holders	Modification	Updated to reflect the correct market manual title, "MM 5.5: IESO-Administered Markets Settlement Amounts" and deleted, "MM 5.5 Settlement Amounts Associated with the IESO Administered Markets". This change was made in response to feedback from OPG (comment id 62).
Appendix G Summary of Transmission Rights	Modification	Updated Market Manual reference and deleted reference to MM "4.6" and revised reference to MM 4.2: Operation of Day-Ahead Market. Also, deleted "Remediation". This change was made in response to feedback from OPG (comment id 67).
List of Acronyms	Modification	Deleted acronyms, " <i>LMP</i> ", " <i>Locational Marginal Price</i> ", "TTC" and " <i>total transfer capability</i> ". This change was made in response to feedback from OPG (comment id 68).

Market Manuals – Settlements

The following *market manuals* are part of the Settlements batch, released on December 1, 2022:

- Market Manual 1: Connecting to Ontario's Power System, Part 1.5: Market Registration Procedures
- Market Manual 4: Market Operations, Part 4.4: Transmission Rights Auction
- Market Manual 5: Settlements, Part 5.3: Physical Bilateral Contract Data
- Market Manual 5: Settlements, Part 5.5: IESO-Administered Markets Settlement Amounts

Future release(s) of Settlements batch related *market manuals* will include the following:

- Market Manual 5: Settlements, Part 5.6: Non-Market Settlement Programs
- Market Manual 5: Settlements, Part 5.7: Settlement Process (MRP updates to follow RSS publication)
- Market Manual 5: Settlements, Part 5.8: Settlement Invoicing (MRP updates to follow RSS publication)
- Market Manual 5: Settlements, Part 5.10: Settlement Disagreements (MRP updates to follow RSS publication)
- IESO Charge Types and Equations

The following *market manuals* 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 9.5: Settlement of the Day-Ahead Commitment Process

Market Manual 5.3: Physical Bilateral Contract Data

This is an existing *market manual* that has been restructured under MRP and renamed from “Submission of Physical Bilateral Contract Data” to “Physical Bilateral Contract Data”.

The table that follows reflects this new structure. The *market manual* has been updated to reflect that *market participants* can submit *physical bilateral contract data* in either the *day-ahead market* and/or *real-time market*. The method by which a *selling market participant* may submit *physical bilateral contract data* to the *IESO*, revise or cancel *physical bilateral contract data*, and the prescribed timelines associated with any of these actions, has not changed under MRP.

Note:

1. This *market manual* has been adapted to align to the new MRP document structure, and where applicable, any editorial and conforming changes due to MRP will be made and will not be explicitly identified in this table.
2. The detailed steps previously included to perform certain actions have been removed and replaced with reference to the applicable training guide.
3. The procedural work flows and procedural steps have been removed in the restructured *market manual* and relevant content has been moved within the body of the *market manual*, under the applicable sections.

Details of changes to Market Manual 5.3: December 1, 2022

In the table that follows, “New” in the “Type of Change” column refers to the restructured *market manual* section being new. The content associated with that section is not new, unless stated otherwise in the “Description” column and has been updated due to MRP.

Market Manual Section	Type of Change	Description
Title	Modification	Title change from “Submission of Physical Bilateral Contract Data” to “Physical Bilateral Contract Data”
N/A	New	Restructured <i>market manual</i> that provides administrative and procedural details with respect to the <i>settlement process</i> by which the <i>IESO</i> shall determine the <i>energy settlement</i> of a <i>physical bilateral contract</i> between a <i>selling market participant</i> and a <i>buying market participant</i> , in either the <i>day-ahead market</i> and/or <i>real-time market</i> and reallocate components of <i>hourly uplifts</i> from

Market Manual Section	Type of Change	Description
		the <i>buying market participant</i> to the <i>selling market participant</i> according to the <i>physical bilateral contract data</i> submission.
1 Introduction	New	This section contains: 1.1: Purpose of the <i>market manual</i> ; 1.2: Scope of the <i>market manual</i> ; 1.3: Overview of the <i>market manual</i> ; and 1.4: Contact information for the <i>IESO</i> .
2 Content and Form of Physical Bilateral Contract Data	New	This section contains a description of the content and form of <i>physical bilateral contracts</i> .
2.1 Content of Physical Bilateral Contract Data	New	This section lists the content of the <i>physical bilateral contract data</i> that is to be submitted to the <i>IESO</i> by the <i>selling market participant</i> , for either the <i>day-ahead market</i> and/or <i>real-time market</i> .
2.2 Form of Physical Bilateral Contract Data Quantities	New	This section identifies the two forms that the <i>physical bilateral contract quantities</i> are to be submitted to the <i>IESO</i> by the <i>selling market participant</i> : absolute quantity of <i>energy</i> (in MWh) or derived quantity of <i>energy</i> . Updated for MRP to state that the derived quantity of <i>energy</i> option is not available for <i>day-ahead market physical bilateral contracts</i> as the quantities of <i>energy</i> are derived from the <i>day-ahead schedule</i> .
3 Submission of Physical Bilateral Contract Data	New	This section identifies that <i>physical bilateral contract data</i> can be submitted to the <i>IESO</i> as either daily or standing. Updated for MRP to state that <i>virtual zonal resources</i> are excluded from the list of resources that <i>market participants</i> without physical <i>facilities</i> can select from.
3.1 Submission Timelines for Daily Physical Bilateral Contract Data	New	This section provides the prescribed timelines for submitting daily <i>physical bilateral contract data</i> to the <i>IESO</i> by the <i>selling market participant</i> .

Market Manual Section	Type of Change	Description
3.2 Submission Timelines for Standing Physical Bilateral Contract Data	New	This section provides the prescribed timelines for submitting standing <i>physical bilateral contract data</i> to the <i>IESO</i> by the <i>selling market participant</i> and the conversion to daily <i>physical bilateral contract data</i> .
4 Revisions to Physical Bilateral Contract Data	New	This section covers the procedures for submitting revisions to, including withdrawals of, <i>physical bilateral contract data</i> .
4.1 Revisions to Daily Physical Bilateral Contract Data	New	This section provides the procedures for submitting revisions to daily <i>physical bilateral contract data</i> .
4.2 Revisions to Standing Physical Bilateral Contract Data	New	This section provides the procedures for submitting revisions to standing <i>physical bilateral contract data</i> .
5 Settlement of Physical Bilateral Contract Data	New Modification	This section describes how the <i>settlement process</i> will <i>settle</i> the submitted <i>physical bilateral contract data</i> and allocate <i>hourly uplift</i> components.
6 Defaults and Suspensions	New	This section covers the impact of defaults and suspensions on <i>physical bilateral contracts</i> .
Appendix A Forms	New	This section contains a list of forms that are used in this <i>market manual</i> .
List of Acronyms	New	This section contains a list of acronyms that are used in this <i>market manual</i> .
References	New	This section contains a list of <i>market manuals</i> and other <i>IESO</i> documents that are referenced in this <i>market manual</i> .

Summary of changes to Market Manual 5.3: April 2023

Market Manual Section	Type of Change	Description
Table of Changes	Modification	<p>This section has been updated to correct punctuation, document titles, and to clarify the rationale for document name change.</p> <p>This change was made in response to written feedback from OPG (comment id 69).</p>
1.2 Scope	Modification	<p>Deleted reference to MR Ch.3 s.2.7 and replaced with MR Ch.3 s.6.3.4: Notice of Intent to Suspend.</p> <p>This change was made in response to internal feedback.</p>
1.2 Scope	Modification	<p>Rearranged bulleted list of <i>market rule</i> references in numerical order and added section headings where it was previously not included.</p> <p>Section headings are not provided in instances where a reference points directly to a <i>market rule</i>.</p> <p>This change was made in response to written feedback from OPG (comment id 70).</p>
2.2 Form of Physical Bilateral Contract Data Quantities	Modification	<p>Section has been updated to provide further clarity as to which forms are available for <i>market participants</i> are to submit <i>physical bilateral contract data</i>.</p> <p>This change was made in response to written feedback from OPG (comment id 72).</p>
3.2 Submission of Physical Bilateral Contract Data	Modification	<p>Figure 3-1 (previously labelled as Figure 1-1 in version 1) has been updated to spell out the acronyms. The List of Acronyms table has now been deleted.</p> <p>This change was made in response to internal feedback and written feedback received from OPG (comment id 74).</p>
List of Acronyms	Deleted	<p>This section has been deleted as acronyms are no longer used in this <i>market manual</i>.</p> <p>This change was made in response to internal feedback and written feedback received from OPG (comment id 74).</p>

Market Manual 5.5: Physical Market Programs

The implementation of MRP will affect existing *settlement amounts*. In these instances, those *settlement amounts* may be amended, replaced entirely, or will be retired under MRP. The new MRP *settlement amounts*, which will replace current *settlement amounts*, will take into account

both *day-ahead market* and *real-time market* activity.

The following table takes the current *market manual* 5.5, at the time of this Settlements batch release, and summarizes the impact of MRP on these *settlement amounts*.

Note:

1. All instances of “intentionally left blank” are not included in this table.
2. For those *settlement amounts* that will continue in some form in the future market, they have been adapted to align to the new MRP document structure, and where applicable, any editorial and conforming changes due to MRP will be made and will not be explicitly identified in this table.
3. All *settlement amounts* that have been identified as “Moved to MM 5.6” will be moved to MM 5.6 which will be focused on regulatory settlement amounts and, as noted above, will be released as part of a subsequent batch.

Details of changes to Market Manual 5.5: December 1, 2022

Current Market Manual Section	Type of Change	Description
1.1 Purpose	Modification	<ul style="list-style-type: none"> • Updated for MRP
1.2 Scope	Modification	<ul style="list-style-type: none"> • Updated for MRP
1.6.1 Generation Station Service Rebate	Modification	<ul style="list-style-type: none"> • Moved to section 2.27 – Station Service Rebate • Moved to section 2.28 – Station Service Rebate
1.6.1A Electricity Storage Station Service Rebate		<ul style="list-style-type: none"> • MRP updates: equation to include the new <i>hourly uplift</i> and <i>non-hourly uplift settlement amounts</i> in <i>day-ahead market</i> and <i>real-time market</i>
1.6.5 Administrative Pricing Event	Delete	<ul style="list-style-type: none"> • Retired under MRP • Request for additional compensation not required with the introduction of the real-time make-whole payment
1.6.6 Transmission Service Charges for Embedded Generation	Relocate	<ul style="list-style-type: none"> • Moved to MM 5.6
1.6.7 Regulated Price Plan, Regulated Generation	Relocate	<ul style="list-style-type: none"> • Moved to MM 5.6
1.6.8 Limiting CMSC Payments for Exporters and Dispatchable Loads and Electricity Storage Participants	Delete	<ul style="list-style-type: none"> • Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment • Replacement bids for <i>dispatchable load</i>, <i>electricity storage resources</i>, and exports have been retained and included in the calculation of make-

Current Market Manual Section	Type of Change	Description
		whole payments for <i>day-ahead market</i> and <i>real-time market</i>
1.6.9 Adjustment for Facility-Induced CMSC	Delete	<ul style="list-style-type: none"> Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment Business rules and definitions for <i>energy</i> and <i>operating reserve</i> for <i>dispatchable loads</i> have been retained and applied to the calculation of lost opportunity cost for real-time make-whole payments
1.6.10 Real-time Import Failure Charges and Export Failure Charges	Modification	<ul style="list-style-type: none"> Moved to section 2.22 MRP updates: <ul style="list-style-type: none"> new <i>market price</i> for <i>energy</i> schedules subject to the failure charge when a failure charge will be applied Intertie transaction reason codes moved to MM 4.3: Real-Time Scheduling of the Physical Markets
1.6.11 Standard Offer Program (SOP)	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6
1.6.12 CMSC Adjustment for Replacement Offer Events	Delete	<ul style="list-style-type: none"> Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment
1.6.13 Compensation Resulting from an SPS Activation	Delete	<ul style="list-style-type: none"> Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment
1.6.14 Northern Industrial Electricity Rate Program (NIERP)	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6
1.6.17 Conservation Assessment Recovery	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6
1.6.19 Renewable Integration – Forecasting	Modifications	<ul style="list-style-type: none"> Moved to section 3.1 – Forecasting Services Moved to section 3.2 – Forecasting Service Uplift
1.6.20 Adjustment for Self-Induced CMSC Earned by Certain Generating Facilities	Delete	<ul style="list-style-type: none"> Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment

Current Market Manual Section	Type of Change	Description
1.6.22 Limiting Payments to Exports during Negative Prices	Delete	<ul style="list-style-type: none"> Retired under MRP with the introduction of the real-time make-whole payment
1.6.23 Smart Metering Entity Charge	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6
1.6.25 Biomass NUG and Energy from Waste (EFW) Contracts	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6
1.6.26 Capacity Obligations	Relocate	<ul style="list-style-type: none"> Moved to section 3.4 – Capacity Obligations Changes to be provided following the finalization of the Capacity Auction Market Rule Amendment
1.6.27 Transmission Rights Clearing Account Disbursement	Modification	<ul style="list-style-type: none"> Moved to section 2.22.1 – Transmission Rights Clearing Account Disbursement Example deleted Illustration included of “TRCA balance period” and “TRCA look-back period”
1.6.28 Limiting Constrained-off CMSC at Interties	Delete	<ul style="list-style-type: none"> Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment
1.6.29 Ontario Electricity Support Program	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6
1.6.30 Adjustment Account Surplus Disbursement	No Change	<ul style="list-style-type: none"> Moved to section 3.3 – Adjustment Account Surplus Disbursement
1.6.31 Limiting Constrained On CMSC Payments to Generators and Electricity Storage Participants Ramping Down	Modification	<ul style="list-style-type: none"> Moved to section 2.23 – Real-Time Ramp-Down Settlement Amount Moved to 2.24 – Real-Time Ramp-Down Settlement Amount Uplift New <i>settlement amount</i> calculation updated for MRP to reflect: <ul style="list-style-type: none"> new <i>market price</i> for <i>energy</i> and impact of <i>day-ahead market</i> removal of CMSC under a single schedule market
1.6.32	Relocate	<ul style="list-style-type: none"> Moved to MM 5.6

Current Market Manual Section	Type of Change	Description
Ontario Rebate for Electricity Consumers Act, 2016		
1.6.33 Fair Hydro Act, 2017	Relocate	<ul style="list-style-type: none"> • Moved to MM 5.6
1.6.34 Capacity Exports	Modification	<ul style="list-style-type: none"> • Content removed from MM 5.5 and included in the following sections of MR Ch.9: <ul style="list-style-type: none"> • Section 3.4 - Day-Ahead Market Make-Whole Payment • Section 3.5 - Real-Time Make-Whole Payment • Section 4.4 - Day-Ahead Market Generator Offer Guarantee • Section 4.5 – Real-Time Generator Offer Guarantee
1.6.35 Dispute Resolution Settlement	No Change	<ul style="list-style-type: none"> • Moved to section 3.5 – Dispute Resolution Settlement
1.6.36 COVID-19 Energy Assistance Program (CEAP and CEAP-SB)	Relocate	<ul style="list-style-type: none"> • Moved to MM 5.6
1.7 Roles and Responsibilities	Delete	<ul style="list-style-type: none"> • Not required under new MRP document template
1.8 Contact Information	Modification	<ul style="list-style-type: none"> • Moved to section 1.4 • Updated to new MRP document template
Appendix A Forms	Relocate	<ul style="list-style-type: none"> • IMO_FORM_1507 Declaration of Designated Consumers - moved to MM 5.6
Appendix A Forms	Delete	<ul style="list-style-type: none"> • IMO_FORM_1549 Administrative Pricing Event Correction
Appendix B IESO Charge Types Applicable to the Authorized Charge	Relocate	<ul style="list-style-type: none"> • Moved to MM 5.6
Appendix C Price Bias Adjustment Factors Calculation Method for the Real-Time Import and Export Failure Charge	No Change	<ul style="list-style-type: none"> • No change

Current Market Manual Section	Type of Change	Description
Appendix D Expired Settlement Calculations Kept for Purposes of Re-Calculation	•	To be reviewed in future alignment of <i>market manuals</i>
Appendix E OPG Rebate	•	To be reviewed in future alignment of <i>market manuals</i>

Market Manual 5.5: IESO-Administered Markets Settlement Amounts

This is an existing *market manual* that has been restructured under MRP and renamed from “Physical Market Programs” to “IESO-Administered Markets Settlement Amounts”. The table that follows reflects this new structure.

This *market manual* describes the *settlement process* by which the *IESO* shall determine *settlement amounts* associated with the *IESO-administered markets*, including a breakdown of each hourly and non-hourly *settlement amount* by *charge type* that will appear on a *market participant’s settlement statement* and *invoice*.

For *settlement amounts* not associated with the *IESO-administered markets*, which include, but are not limited to those as directed by *applicable law*, will be included in MM 5.6: Non-Market Settlement Programs. This *market manual* will be provided for stakeholder review and comment at a future release of market manuals for the Settlements batch.

The *physical market* will now include a *day-ahead market* for *energy* transactions and *operating reserve* transactions. Additionally, MRP has introduced virtual transactions for *energy*, that, although part of the financial market, will be *settled* under the *physical market*. Both are included in this *market manual*.

Detail of changes to Market Manual 5.5: December 1, 2022

Market Manual Section	Type of Change	Description
Title	Modification	Title change from “Physical Market Programs” to “IESO-Administered Markets Settlement Amounts”.
N/A	New	Restructured <i>market manual</i> that describes the <i>settlement process</i> by which the <i>IESO</i> shall determine <i>settlement amounts</i> associated with the <i>IESO-administered markets</i> , including a breakdown of each hourly and non-hourly <i>settlement amount</i> by <i>charge type</i> that will appear on a <i>market participant’s settlement statement</i> and <i>invoice</i> .

Market Manual Section	Type of Change	Description
1 Introduction	New	This section contains: 1.1: Purpose of the <i>market manual</i> ; 1.2: Scope of the <i>market manual</i> ; 1.3: Overview of the <i>market manual</i> ; and 1.4: Contact information for the <i>IESO</i> .
2 Day-Ahead Market and Real-Time Market Settlement Charges, Credits and Uplifts	New	This section contains a description of: <ul style="list-style-type: none"> • <i>day-ahead market settlement</i> charges, credits and uplifts and the associated <i>charge types</i>; and • <i>real-time market settlement</i> charges, credits and uplifts and the associated <i>charge types</i>.
2.1 Two-Settlement System	New	The settlement of the <i>day-ahead market</i> and <i>real-time market</i> for <i>energy</i> and <i>operating reserve</i> will be accomplished through the <i>two-settlement</i> system for <i>dispatchable resources</i> .
2.2 Non-Dispatchable Resource Settlement	New	<p><i>Settlement of energy</i> for <i>non-dispatchable resources</i> will be based on the actual quantity of <i>energy</i> withdrawn or injected in the <i>real-time market</i>.</p> <p>For <i>non-dispatchable loads</i>, the <i>settlement of energy</i> will be based on the <i>Ontario zonal price</i> adjusted by the load forecast deviation charge, and the actual quantity of <i>energy</i> withdrawn at the <i>delivery point</i> in real-time.</p>
2.3 Day-Ahead Market Make-Whole Payment (DAM_MWP)	New	The day-ahead market make-whole payment settlement amount (DAM_MWP) provides compensation to <i>dispatchable generation resources</i> , <i>dispatchable loads</i> , <i>price responsive loads</i> , and <i>boundary entity resources</i> that receive a <i>day-ahead schedule</i> for <i>energy</i> or <i>operating reserve</i> that deviates from their economic operating point.
2.4 Day-Ahead Market Generator Offer Guarantee (DAM_GOG)	New	The day-ahead market generator offer guarantee settlement amount (DAM_GOG) provides compensation to <i>market participants</i> with <i>GOG-eligible resources</i> that have a <i>day-ahead operational commitment</i> and are unable to recover their as-offered costs based on the revenue earned during the <i>day-ahead commitment period</i> for <i>energy</i> and <i>operating reserve</i> . The DAM_GOG replaces the day-ahead production cost guarantee (DA_PCG).
2.5 Day-Ahead Market Uplift (DAM_UPL)	New	The <i>day-ahead market uplift settlement amount</i> (DAM_UPL) will recover the cost of the DAM_MWP and DAM_GOG <i>settlement amounts</i> . The calculation of the DAMU will exclude the portion of the DAM_MWP and DAM_GOG <i>settlement amounts</i> that are

Market Manual Section	Type of Change	Description
		<i>settled</i> under the <i>day-ahead market reliability</i> scheduling uplift (DRSU).
2.6 Day-Ahead Market Reliability Scheduling Uplift (DRSU)	New	<p>During Pass 2: Reliability Scheduling and Commitment of the <i>day-ahead market calculation engine</i>, the following additional <i>resources</i> may be committed:</p> <ul style="list-style-type: none"> • <i>GOG-eligible resources</i>; or • newly scheduled or incrementally scheduled import transactions for <i>boundary entity resources</i>. <p>When this occurs, the <i>IESO</i> will need to recover any additional cost associated with scheduling these <i>resources</i>. These additional costs will be recovered through the <i>day-ahead market reliability</i> scheduling uplift <i>settlement amount</i> (DRSU).</p>
2.7 Real-Time Make-Whole Payment (RT_MWP)	New	The real-time make-whole payment settlement amount (RT_MWP) provides compensation to <i>dispatchable generation resources, dispatchable loads, and boundary entity resources</i> that receive a <i>real-time schedule</i> for <i>energy</i> or <i>operating reserve</i> that deviates from their economic operating point when following <i>IESO dispatch instructions</i> .
2.8 Real-Time Make-Whole Payment Uplift (RT_MWPU)	New	The real-time make-whole payment uplift <i>settlement amount</i> (RT_MWPU) will recover the cost of the RT_MWP <i>settlement amounts</i> .
2.9 Day-Ahead Market Balancing Credit (DAM_BC)	New	The <i>IESO</i> will calculate the <i>day-ahead market</i> balancing credit <i>settlement amount</i> (DAM_BC) for <i>market participants</i> with eligible <i>GOG-eligible resources</i> and <i>boundary entity resources</i> to compensate for financial losses incurred by the <i>market participant</i> in the circumstances specified in the <i>market rules</i> .
2.10 Day-Ahead Market Balancing Credit Uplift (DAM_BCU)	New	The <i>day-ahead market</i> balancing credit uplift <i>settlement amount</i> (DAM_BCU) will recover the cost of the DAM_BC <i>settlement amounts</i> .
2.11 Real-Time Generator Offer Guarantee (RT_GOG)	New	<p>The real-time <i>generator offer</i> guarantee <i>settlement amount</i> (RT_GOG) provides compensation to <i>market participants</i> with <i>GOG-eligible resources</i> that are committed during the <i>pre-dispatch scheduling process</i> and are unable to recover their <i>as-offered</i> costs based on the revenue earned during the <i>pre-dispatch commitment period</i>.</p> <p>The RT_GOG replaces the real-time generator cost guarantee (RT_GCG).</p>

Market Manual Section	Type of Change	Description
2.12 Real-Time Generator Offer Guarantee Uplift (RT_GOGU)	New	The real-time <i>generator offer</i> guarantee uplift <i>settlement amount</i> (RT_GOGU) will recover the cost of the RT_GOG <i>settlement amounts</i> . The RT_GOGU replaces the real-time generator cost guarantee (RT_GCG).
2.13 Generator Failure Charge (GFC)	New	A <i>GOG-eligible resource</i> that is committed by the <i>pre-dispatch calculation engine</i> and fails to deliver <i>energy</i> into the <i>real-time market</i> , will incur a generator failure charge (GFC). There are two components to the GFC: market price component (GFC_MPC) and guarantee cost component (GFC_GCC).
2.14 Generator Failure Charge – Market Price Component Uplift (GFC_MPCU)	New	The <i>generator failure</i> charge – market price component uplift <i>settlement amount</i> (GFC_MPCU) will recover the cost of the GFC_MPC <i>settlement amounts</i> .
2.15 Generator Failure Charge – Guarantee Cost Component (GFC_GCCU)	New	The <i>generator failure</i> charge – guarantee cost component uplift <i>settlement amount</i> (GFC_GCCU) will recover the cost of the GFC_GCC <i>settlement amounts</i> .
2.16 Real-Time Intertie Failure Charge (RT_INFC)	New	The real-time import failure charge <i>settlement amount</i> (RT_IMFC) and real-time export failure charge <i>settlement amount</i> (RT_EXFC) are existing <i>settlement amounts</i> that have been updated under MRP to reflect the schedules that are subject to the failure charge and the new <i>market price</i> for <i>energy</i> used in the <i>settlement</i> calculation.
2.17 Real-Time Intertie Failure Charge Uplift (RT_IFCU)	New	This is an existing <i>settlement amount</i> that will recover the real-time import failure charge <i>settlement amount</i> (RT_IMFC) and real-time export failure charge <i>settlement amount</i> (RT_EXFC). The <i>settlement amount</i> has been renamed from Intertie Failure Charge Rebate.
2.18 Real-Time Intertie Offer Guarantee (RT_IOG)	New	The real-time <i>intertie offer</i> guarantee <i>settlement amount</i> (RT_IOG) is an existing <i>settlement amount</i> that has been updated under MRP to reflect the new IOG offset process.

Market Manual Section	Type of Change	Description
2.19 Real-Time Intertie Offer Guarantee Uplift (RT_IOGU)	New	The real-time <i>intertie offer</i> guarantee uplift <i>settlement amount</i> (RT_IOGU) will recover the cost of the RT_IOG <i>settlement amounts</i> .
2.20 Internal Congestion and Loss Residuals (ICLR)	New	Locational pricing and the physical realities of the <i>IESO-controlled grid</i> mean the amount paid for <i>energy</i> by consumers does not always equal the amount paid to suppliers. This differential is known as residuals. The internal congestion and loss residual <i>settlement amount</i> (ICLR) will be disbursed to or collected from <i>load resources</i> at each <i>delivery point</i> .
2.21 External Congestion and NISL Residuals	New	<p>Residuals are created at the <i>interties</i> in the <i>day-ahead market</i> and <i>real-time market</i> as part of the <i>energy settlement</i> from all <i>boundary entity resources</i> that consume or supply <i>energy</i>.</p> <p>Four types of residuals can arise at the <i>interties</i>: (1) <i>day-ahead market</i> external congestion residual, (2) <i>real-time market</i> external congestion residual, (3) <i>day-ahead market</i> net interchange scheduling limit residual, and (4) <i>real-time market</i> net interchange scheduling limit residual.</p> <p>Each, with the exception of the <i>day-ahead market</i> external congestion residual which will be allocated to the <i>TR clearing account</i>, will be disbursed to or collected from the market.</p>
2.22 Transmission Rights	New	With the introduction of <i>location marginal prices</i> and a <i>day-ahead market</i> , the <i>TR market settlement</i> has shifted from real-time to day-ahead. After payments are made to <i>TR holders</i> , the net <i>day-ahead market</i> external congestion residual (DAM_NECR) will be allocated to the that is collected in the <i>day-ahead market</i> , net of payments made to <i>TR holders</i> will be allocated to the <i>TR clearing account</i> for future disbursement.
2.23 Real-Time Ramp-Down Settlement Amount (RT_RDSA)	New	<p>The real-time ramp-down <i>settlement amount</i> (RT_RDSA) is intended to compensate <i>GOG-eligible resources</i> for ramp-down costs and will be calculated for <i>settlement hours</i> where the <i>GOG-eligible resource's real-time schedule</i> is less than its <i>minimum loading point</i>, indicating the <i>GOG-eligible resource's</i> intent to de-synchronize from the <i>IESO-controlled grid</i>.</p> <p>The RT_RDSA replaces <i>charge type 122 – Ramp Down Settlement Amount</i>.</p>

Market Manual Section	Type of Change	Description
2.24 Real-Time Ramp-Down Settlement Amount Uplift (RT_RDSA)	New	The real-time ramp-down uplift <i>settlement amount</i> (RT_RDSA) will recover the cost of the RT_RDSA.
2.25 Fuel Cost Compensation Credit (FCC)	New	<p>The IESO will compensate <i>market participants</i> for the cost incurred in securing unused fuel as a result of specified de-commitment events. The fuel cost compensation credit (FCC) is intended to allow <i>GOG-eligible resources</i> to recover the cost of fuel incurred to meet the <i>day-ahead operational commitment</i> or <i>pre-dispatch operational commitment</i> that it may not otherwise be able to recover from the <i>IESO-administered markets</i>. The FCC is only applicable to the procurement of fuel required to achieve <i>minimum loading point</i> of the relevant operational commitment.</p> <p>This is an existing <i>settlement amount</i> that has been updated for MRP.</p>
2.26 Fuel Cost Compensation Credit Uplift (FCCU)	New	<p>The fuel cost compensation credit uplift <i>settlement amount</i> (FCCU) will recover the cost of the fuel cost compensation credit.</p> <p>This is an existing <i>settlement amount</i> that has been updated for MRP.</p>
2.27 Station Service Rebate	New	<p>Some <i>facilities</i> in the <i>IESO-administered markets</i> consume <i>energy</i> as <i>station service</i>. <i>Metered market participants</i> for certain <i>facilities</i> are eligible for reimbursement of the <i>hourly uplift</i> and non-hourly uplift <i>settlement amounts</i> related to AQEW consumed as <i>station service</i>.</p> <p>This is an existing <i>settlement amount</i> that has been updated for MRP to reflect the new <i>hourly uplift</i> and non-<i>hourly uplift settlement amounts</i>.</p>
2.28 Station Service Debit	New	<p>The <i>station service</i> debit <i>settlement amount</i> will recover the cost of the station service rebate.</p> <p>This is an existing <i>settlement amount</i>.</p>
3 Other Market Charges, Credits and Uplifts	New	This section contains a description of other hourly and non-hourly market charges, credits and uplifts and the associated <i>charge types</i> .

Market Manual Section	Type of Change	Description
3.1 Forecasting Services	New	<p>The <i>IESO</i> has established forecasting services as a procured service to accommodate <i>variable generation</i> from wind and solar <i>resources</i>. The forecasting service <i>settlement amount</i> will be paid to forecasting service providers.</p> <p>This is an existing <i>settlement amount</i>. No updates required due to MRP.</p>
3.2 Forecasting Services Uplift	New	<p>The forecasting service balancing amount <i>settlement amount</i> will recover the cost of paid to forecasting service providers.</p> <p>This is an existing <i>settlement amount</i>. No updates required due to MRP.</p>
3.3 Adjustment Account Surplus Disbursement	New	<p>The <i>IESO</i> will review, at least annually, the allocation of any credit balance to the <i>IESO adjustment account</i> as directed by the <i>IESO Board</i>. The <i>IESO Board</i> may direct that some or all of the credit balance (surplus) be distributed to <i>market participants</i> as a rebate.</p> <p>This is an existing <i>settlement amount</i>. No updates required due to MRP.</p>
3.4 Capacity Obligations	New	<p>To be provided following the finalization of the Capacity Auction Market Rule Amendment.</p>
3.5 Dispute Resolution Settlement	New	<p>After the successful resolution of a dispute between the <i>IESO</i> and a <i>market participant</i>, the <i>IESO</i> will determine a <i>settlement amount</i> to be paid to or owed by the <i>market participant</i>.</p> <p>This is an existing <i>settlement amount</i>. No updates required due to MRP.</p>
4 Market Power Mitigation	New	<p>This section describes the impacts to the <i>settlement process</i> when the <i>IESO</i> implements the market power mitigation process to assess the exercise of global market power and local market power.</p>
5 Market Remediation	New	<p>This section describes the impacts to the <i>settlement process</i> when potential market tool failures and errors impact the operability of the <i>IESO-administered markets</i>.</p>

Market Manual Section	Type of Change	Description
Appendix A Forms	New	This section contains a list of forms that are used in this <i>market manual</i> .
Appendix B Hydroelectric Generation Resources – Determining a Start and Start Event	New	This section illustrates how the <i>IESO</i> determines a start and start event for hydroelectric <i>generation resources</i> .
Appendix C Price Bias Adjustment Factors Calculation Method for the Real-Time Import and Export Failure Charge	New	This section describes how the <i>IESO</i> calculates the price bias adjustments factors that are used in the <i>settlement</i> calculation of the real-time import and export failure charge.
Appendix D IOG Offset Process	New	This section provides an example of the IOG offset process.
List of Acronyms	New	This section contains a list of acronyms that are used in this <i>market manual</i> .
Defined Terms	New	This section contains a list of defined terms that are used in this <i>market manual</i> .
References	New	This section contains a list of <i>market manuals</i> and other <i>IESO</i> documents that are referenced in this <i>market manual</i> .

Summary of Changes to Market Manual 5.5: April 2023

Market Manual Section	Type of Change	Description
Table of Changes	Modification	This section has been updated to correct punctuation, document titles, and to clarify the rationale for document name change. This change was made in response to written feedback from OPG (comment id 76).
Various	Modification	Added <i>settlement amount</i> acronyms in the body of text where they were previously not included to align with other sections of the market manual.

Market Manual Section	Type of Change	Description
		This change was made in response to internal feedback.
1.2 Scope	Modification	Deleted reference to MR Ch.3 s.2.5 and replaced with MR Ch.3 s.2.7: Notice of Dispute, Negotiation and Response. This change was made in response to internal feedback.
1.2 Scope	Modification	Added section headings where it was previously not included. Section headings are not provided in instances where a reference points directly to a <i>market rule</i> . This change was made in response to written feedback from OPG (comment id 77).
1.3 Overview	Modification	From footnote 2, deleted 'preliminary and final' as the definition of <i>settlement statements</i> includes the types of <i>settlement statements</i> . This change was made in response to internal feedback.
2.2.2.1 Load Forecast Deviation Charge	Modification	Replaced 'actual demand' with 'actual quantity of <i>energy</i> consumed in real-time'. This change was made in response to internal feedback.
2.5 Day-Ahead Market Uplift (DAM_UPL)	Modification	Replaced <i>day-ahead market uplift settlement amount</i> with acronym DAM_UPL in body of text. This change was made in response to internal feedback.
2.6 Day-Ahead Market Reliability Scheduling Uplift (DRSU)	Modification	Replaced <i>day-ahead market reliability scheduling uplift settlement amount</i> with acronym DRSU in body of text. This change was made in response to internal feedback.
2.11 Real-Time Generator Offer Guarantee (RT_IOG)	Modification	Updated <i>market rule</i> reference from MR Ch.9 s.3.6 to MR Ch.9 s.4.5. This change was made in response to internal feedback.
2.18 Real-Time Intertie Offer Guarantee (RT_IOG)	Deleted	Deleted 'implied' in the sentence 'The <i>market participant</i> is only compensated for <i>real-time market energy</i> import transaction quantities of <i>energy</i> that do not form part of an implied <i>linked wheeling through transaction</i> .' This change was made in response to internal feedback.
4.1 Reference Level Settlement Charges (RLSC)	Modification	Added additional clarity that the RLSC is applicable to <i>market participants</i> that have <i>dispatchable generation resources</i> or <i>dispatchable electricity storage resources</i> . Added additional clarity that the RLSC only applies to <i>energy</i> .

Market Manual Section	Type of Change	Description
		This change was made in response to internal feedback.
4.4 Settlement Mitigation of Settlement Amounts	Modification	<p>In reference to the impact test, updated <i>market rule</i> reference from MR Ch.9 s.5 to MR Ch.9 s.5.1.</p> <p>This change was made in response to internal feedback.</p>
5 Market Remediation	Modification	<p>Deleted reference to MM 4.6: Market Remediation and replaced with reference to MM 4.2: Operation of the Day-Ahead Market and MM 4.3: Operation of the Real-Time Markets.</p> <p>This change was made in response to internal feedback and written feedback from OPG (comment id 83)</p>
Appendix D IOG Offset Process	Modification	<p>Updated Table D-1:</p> <ul style="list-style-type: none"> • deleted reference to (SQEI) as the column refers to both import transactions and export transactions • updated Potential_IOG for RT Import Transaction Res9 from \$4,000 to \$0 <p>Updated Table D-2:</p> <ul style="list-style-type: none"> • deleted reference to (DAM_SQEI) as the column refers to both import and export transactions • updated (1) intertie for DAM Import Transaction Res9 from MNSI to MBSI to align with intertie for RT Import Transaction Res9 and (2) updated MWs from 150MW to 100MW <p>Updated sentence in item 1. from "The corresponding <i>DAM energy</i> import transaction is automatically removed as the <i>DAM schedule</i> of 150MW is greater than the <i>real-time schedule</i> of 100MW." to "The corresponding <i>DAM energy</i> import transaction is automatically removed as the <i>DAM schedule</i> of 100MW is equal to the <i>real-time schedule</i> of 100MW." This update was made to align with the edits to Table D-1 and Table D-2.</p> <p>This change was made in response to internal feedback.</p>
References	Modification	<p>Removed references to MM 5.7: Settlement Process, MM 5.8: Settlement Invoicing and MM 5.9: Settlement Payment Methods and Schedule as these <i>market manuals</i> are not referenced within MM 5.5.</p> <p>This change was made in response to internal feedback.</p>

Summary of Changes to Market Manual 5.5: January 2024

Market Manual Section	Type of Change	Description
Throughout	Editorial	<p>Made various editorial updates to align with other MRP batches, such as:</p> <ul style="list-style-type: none"> • adding introductory statements; • adding specificity to <i>resource</i> types (i.e prefaced references to '<i>boundary entity resource</i>' with '<i>energy trader participating with a</i>', added '<i>that is registered to withdraw/inject</i>' after '<i>dispatchable electricity storage resource</i>'); • removing references to <i>market manual</i> titles and only including the <i>market manual</i> number (i.e. from MM 5.6: Non-Market Settlement Programs to MM 5.6); • added '<i>generation unit</i>' after combustion turbine/steam turbine; and • updated references from '<i>you</i>' to '<i>market participant</i>'. <p>This change was made in response to internal feedback.</p>
2.1 Two-Settlement System	Editorial	<p>Real-time balancing <i>settlement</i> description - updated last sentence from '<i>differs from the day-ahead scheduled quantity</i>' to '<i>differs from the quantity in its day-ahead schedule</i>'.</p>
2.1.1 Hourly Physical Transaction Settlement Amount (HPTSA)	Modification	<ol style="list-style-type: none"> 1. Under '<i>Overview of HPTSA</i>' – added the <i>resource</i> types that the HPTSA applies to and added bullet for HPTSA_PRL. <p>The modification was made to reflect the inclusion that <i>non-dispatchable generation resources</i> will now be <i>settled</i> under two-settlement (<i>charge types</i> 1100 and 1101) and no longer under <i>charge type</i> 1114.</p> <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p> <ol style="list-style-type: none"> 2. Under '<i>HPTSA charge types</i>', Table 2-1 has been modified: <ul style="list-style-type: none"> • expanded list of <i>resource</i> types in column '<i>Dispatchable Resource Type</i>'; • updated name of <i>charge types</i> 1100 and 1101, to remove '<i>Dispatchable</i>' as these <i>charge types</i> will be used to <i>settle non-dispatchable generation resources</i>, which will no longer be <i>settled</i> under <i>charge type</i> 1114.

Market Manual Section	Type of Change	Description
		This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.
2.1.2 Hourly Virtual Transaction Settlement Amount (HVTSA)	Editorial	Updated reference to <i>'market participant'</i> with <i>'virtual trader'</i> . This update was made in response to internal feedback.
2.1.3 Hourly Operating Reserve Settlement Amount (HORSA)	Editorial	Removed bullet <i>'the HORSA is applicable to all dispatchable resources that have a day-ahead schedule for operating reserve'</i> and added reference to <i>'dispatchable resources'</i> to the opening paragraph. <i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11. This update was made in response to internal feedback.
2.1.3.1 Hourly Uplift of HORSA	Modification	Added language to reflect that the HORSA uplift (<i>charge types 250, 252 and 254</i>) will also uplift the ORSCB <i>settlement amounts</i> (<i>charge types 206, 208 and 210</i>). This modification has been made to the section heading and within the body of the section. Note: all references to <i>operating reserve</i> accessibility and the associated <i>charge types</i> was initially excluded from MM 5.5. This update was made in response to internal feedback.
2.2 Non-Dispatchable Resource Settlement	Modification Deleted	Section title updated from <i>'Non-Dispatchable Resource Settlement'</i> to <i>'Non-Dispatchable Load Settlement (HPTSA_NDL)</i> . Deleted opening paragraph. Please refer to next row for additional details. This update was made in response to internal feedback.
2.2.1 Non-Dispatchable Generators (HPTSA_NDG)	Deleted	Subsection has been deleted as <i>non-dispatchable generation resources</i> will be <i>settled</i> under two-settlement (<i>charge types 1100 and 1101</i>) and no longer under <i>charge type 1114</i> . <i>Charge type 1114 – Non-Dispatchable Generator Energy Settlement Amount (HPTSA_NDG)</i> has been retired:

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> • <i>non-dispatchable generation resources</i> and <i>self-scheduling electricity storage resources</i> that are injecting, participate in the <i>day-ahead market</i> by submitting <i>dispatch data</i> indicating the amount of <i>energy</i> expected to be provided to the <i>day-ahead market</i>; • the <i>IESO's</i> initial proposed implementation did not account for MWs scheduled in the <i>day-ahead market</i> for these resources, and as such, they would be <i>settled</i> based on actual injection at RT_LMP. This would be inconsistent with the design intent; • <i>non-dispatchable generation resources</i> and <i>self-scheduling electricity storage resources</i> that are injecting should be subjected to two-settlement in order to account for the MWs scheduled in the <i>day-ahead market</i>. <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p>
2.2.2 Non-Dispatchable Loads (HPTSA_NDL)	Deleted	<p>Subsection heading has been deleted and reflected in main section heading.</p> <p>This update was been made in response to internal feedback.</p>
2.2.1.1 Load Forecast Deviation Charge	Editorial Modification	<ol style="list-style-type: none"> 1. Reorganized subsection. 2. Update to description of Load Forecast Deviation Charge Components in Table 2-6 (previously Table 2-7) to clarify that the '<i>day-ahead market</i> load forecast deviations' is '<i>for non-dispatchable loads</i>' <p>These updates were made in response to internal feedback.</p>
2.3 Day-Ahead Market Make-Whole Payment (DAM_MWP)	Editorial Modification	<ol style="list-style-type: none"> 1. Added '<i>dispatchable electricity storage resources</i>' and '<i>self-scheduling electricity storage resources</i> that are registered to withdraw' to the <i>resource</i> types that DAM_MWP will provide compensation to. The ordering of <i>resource</i> types was also updated to align with the <i>market rules</i>. 2. Deleted reference to 'unrealized' and updated sentence from 'recover unrealized losses greater than its economic operating profit' to 'recover losses associated with its <i>day-ahead schedule</i> being greater than its economic operating point'.

Market Manual Section	Type of Change	Description
		<p>3. Updated section reference for mitigation from section 4 to section 4.4</p> <p>These updates were made in response to internal feedback.</p>
2.3.1 Hydroelectric Generation Resource	Modification	<p>Deleted opening sentence, 'This section provides further context...as described in MR Ch.9 s.3.4.13.'</p> <p>This update was made in response to internal feedback.</p>
2.3.1.1 Determining a Start and Start Event	Editorial Modification	<ol style="list-style-type: none"> 1. Reorganized section. 2. Deleted last paragraph in subsection 2.3.1.1.1 Determining a Start: 'Where the number of starts in a <i>trading day</i>...to have attained max starts'. This language is included in the <i>market rules</i>. <p>This update was made in response to internal feedback.</p>
2.4 Day-Ahead Generator Offer Guarantee (DAM_GOG)	Editorial Modification	<ol style="list-style-type: none"> 1. Updated sentence in opening paragraph from '...and incremental <i>energy</i> and <i>operating reserve offers</i>' to '...and incremental <i>offers</i> for <i>energy</i> and <i>operating reserve</i>'. 2. Updated section reference for mitigation from section 4 to section 4.4 <p>These updates were made in response to internal feedback.</p>
2.4.1 De-Synchronization of a GOG-Eligible Resource	Editorial	<p>Updated opening paragraph to clarify that one of the reasons that the <i>IESO</i> may de-synchronize a <i>GOG-eligible resource</i> is for <i>reliability</i> reasons, not that <i>reliability</i> is the only reason.</p> <p>This update was made in response to internal feedback.</p>
2.5 Day-Ahead Market Uplift (DAM_UPL)	Modification	<p>Added reference to '<i>electricity storage resources</i> that are registered to withdraw'.</p> <p>This update was made in response to internal feedback.</p>
2.6 Day-Ahead Market Reliability Scheduling Uplift (DRSU)	Modification	<p>Added reference to '<i>electricity storage resources</i> that are registered to withdraw'.</p> <p>This update was made in response to internal feedback.</p>
2.7	Editorial	<ol style="list-style-type: none"> 1. Updated list of <i>resource</i> types that the RT_MWP provides

Market Manual Section	Type of Change	Description
Real-Time Make-Whole Payment (RT_MWP)	Modification	<p>compensation to align with the <i>market rules</i>.</p> <ol style="list-style-type: none"> 2. Deleted reference to 'unrealized losses' and updated sentence from 'recover unrealized losses above its economic operating profit' to 'recover losses associated with being scheduled above its economic operating point'. 3. Deleted reference to 'unrealized profits' and updated sentence from 'recover unrealized profits below its economic operating point' to 'recover lost profit associated with being scheduled below its economic operating point.' 4. Updated <i>market rule</i> reference for the RT_MWP <i>bid</i> price adjustment from MR Ch.9 s.3.4.3.2 to MR Ch.9 s.3.5.5.2 5. Updated paragraph for ELOC, including <i>market rule</i> references. 6. Updated <i>market rule</i> references in Table 2-12 (previously Table 2-13). 7. Updated section reference for mitigation from section 4 to section 4.4 <p>These updates were made in response to internal feedback.</p>
2.8 Real-Time Make-Whole Payment Uplift (RT_MWPU)	Modification	<p>Added language to reflect that the RT_MWPU (<i>charge type</i> 1950) will also uplift the RT_MWP_RC <i>settlement amounts</i> (<i>charge types</i> 1908 and 1909).</p> <p><i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11.</p> <p>This update was made in response to internal feedback.</p>
2.9 Day-Ahead Market Balancing Credit (DAM_BC)	Modification	<ol style="list-style-type: none"> 1. Updated acronyms from BCE and BCOR to DAM_BCE and DAM_BCOR. <p>This update was made in response to internal feedback.</p> <ol style="list-style-type: none"> 2. Table 2-15 (previously Table 2-16): added new <i>charge type</i> 1816 – Day-Ahead Market Balancing Credit – Operating Reserve, and updated name of <i>charge type</i> 1815 to include 'energy'. <p>This update was made in response to internal feedback. Changes to the DAM_BC equations was presented to stakeholders at the September 21, 2023 Engagement Webinar.</p>
2.10 Day-Ahead	Modification	<p><i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11.</p>

Market Manual Section	Type of Change	Description
Market Balancing Credit Uplift (DAM_BCU)		
2.11 Real-Time Generator Offer Guarantee	Editorial Modification	<ol style="list-style-type: none"> 1. Updated sentence in opening paragraph from ‘...and incremental <i>energy</i> and <i>operating reserve offers</i>’ to ‘...and incremental <i>offers</i> for <i>energy</i> and <i>operating reserve</i>’. 2. Updated section reference for mitigation from section 4 to section 4.4 <p>These updates were made in response to internal feedback.</p>
2.11.1 De-Synchronization of a GOG-Eligible Resource	Editorial	<p>Updated opening paragraph to clarify that one of the reasons that the <i>IESO</i> may de-synchronize a <i>GOG-eligible resource</i> is for <i>reliability</i> reasons, not that <i>reliability</i> is the only reason.</p> <p>This update was made in response to internal feedback.</p>
2.12 Real-Time Generator Offer Guarantee Uplift (RT_GOGU)	Modification	<p>Added language to reflect that the RT_GOGU (<i>charge type</i> 1960) will also uplift the RT_GOG_CB <i>settlement amount</i> (<i>charge type</i> 1915).</p> <p>Added reference to ‘<i>electricity storage resources</i> that are registered to withdraw’.</p> <p>These updates were made in response to internal feedback.</p>
2.13.1 Period Subject to the Generator Failure Charge	Modification	<ol style="list-style-type: none"> 1. Renamed subsection to include ‘for Non-Pseudo-Units’. 2. Added definition of ‘T1’. <p>These updates were made in response to internal feedback.</p>
2.13.2 Period Subject to the Generator Failure Charge for Pseudo-Units	Modification	<ol style="list-style-type: none"> 1. Added definition of ‘T1’; 2. Added ‘<i>generation unit</i>’ after all instances of combustion turbine and steam turbine; 3. Table 2-23 (previously Table 2-24): <ul style="list-style-type: none"> • Failure Events Number 3 and 4: updated ‘fails to inject’ to ‘fails to be scheduled’. • Failure Event Number 6: updated language for the steam turbine from ‘from the first <i>metering interval</i> where the steam turbine has a <i>real-time schedule</i>..., until the last <i>metering interval</i>’ to ‘from the first

Market Manual Section	Type of Change	Description
		<p><i>metering interval</i> where the <i>pseudo-unit</i> has switched to single cycle mode, until the last <i>metering interval</i>.</p> <p>These updates were made in response to internal feedback.</p>
2.14 Generator Failure Charge – Market Price Component Uplift (GFC_MPCU)	Modification	<p><i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11.</p>
2.15 Generator Failure Charge – Guarantee Cost Component Uplift (GFC_GCCU)	Modification	<p>Added reference to '<i>electricity storage resources</i> that are registered to withdraw'.</p> <p>This update was made in response to internal feedback.</p>
2.16 Real-Time Intertie Failure Charge (RT_INFC)	Modification	<p>Section renamed from 'Real-Time Intertie Failure Charge (RT_INFC)' to 'Intertie Failure Charge (INFC)':</p> <ul style="list-style-type: none"> • this change was made to reflect applicability of <i>intertie</i> failure charges in the <i>day-ahead market</i> and <i>real-time market</i>; • incorporated language to this section to reflect this <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p>
2.16.1 Intertie Transaction Reason Codes and Resultant Treatment	Modification	<p>Added <i>market rule</i> reference for 'bona fide and legitimate reasons'.</p> <p>Table 2-26 (previously Table 2-27) updated to:</p> <ul style="list-style-type: none"> • remove current <i>charge type</i> 135 – Real-Time Import Failure Charge and <i>charge type</i> 136 – Real-Time Export Failure Charge; • added new <i>charge types</i> for <i>day-ahead market</i> and <i>real-time market</i> <i>intertie</i> failure charge <i>settlement amounts</i>. <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p>
2.17 Real-Time Intertie Failure	Modification	<p>Section renamed from 'Real-Time Intertie Failure Charge Uplift (RT_INFCU)' to 'Intertie Failure Charge Uplift (IFCU) and:</p>

Market Manual Section	Type of Change	Description
Charge Uplift (RT_INFC)		<ul style="list-style-type: none"> • change made to reflect reflect applicability of <i>intertie</i> failure charges in the <i>day-ahead market</i> and <i>real-time market</i>; • <i>charge type</i> 186 renamed from 'Real-Time Intertie Failure Charge Uplift' to 'Intertie Failure Charge Uplift'. • <i>market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11. <p>The changes to <i>intertie</i> failure charges was presented to stakeholders at the December 15, 2023 Engagement Webinar. The name change to the <i>charge type</i> is in response to internal feedback.</p>
2.19 Real-Time Intertie Offer Guarantee Uplift (RT_IOGU)	Modification	<p><i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11.</p>
2.21 External Congestion and Net Interchange Scheduling Limit Residuals	Modification	<p><i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11 for <i>charge type</i> 1120 in Table 2-31 (previously Table 2-32) updated.</p> <p>This change was made in response to internal feedback.</p>
2.22.1 Transmission Rights Clearing Account Disbursement	Editorial	<p>Replaced 'To further explain' with 'As described in'.</p>
2.23 Real-Time Ramp-Down Settlement Amount (RT_RDSA)	Editorial	<p>Reorganized section.</p> <p>This change was made in response to internal feedback.</p>
2.23.1 Determining the Energy Offer for the Real-Time Ramp-Down Settlement Amount Calculation	Modification	<p>Added sentence with <i>market rule</i> reference for <i>energy offers</i> to be used in the RT_RDSA calculation.</p> <p>This change was made in response to internal feedback.</p>
2.24 Real-Time	Modification	<p>Added reference to '<i>electricity storage resources</i> that are registered to withdraw'.</p>

Market Manual Section	Type of Change	Description
Ramp-Down Settlement Amount Uplift (RT_RDSAU)		This update was made in response to internal feedback.
2.25 Fuel Cost Compensation Credit (FCC)	Modification	<p>Updated sentence from 'The fuel cost compensation credit is only applicable to the procurement of fuel required to achieve <i>minimum loading point</i> of the relevant operational commitment' to 'The fuel cost compensation credit is only applicable to the procurement of fuel required to achieve and maintain <i>minimum loading point</i> for the duration of the relevant operational commitment.</p> <p>This update was made in response to internal feedback.</p>
2.26 Fuel Cost Compensation Credit Uplift (FCCU)	Modification	<p>Added reference to '<i>electricity storage resources</i> that are registered to withdraw'.</p> <p>This update was made in response to internal feedback.</p>
2.27 Station Service Rebate	Editorial	<p>Updated 'net injection of <i>energy</i>' to 'net injector of <i>energy</i>'.</p> <p>This update was made in response to internal feedback.</p>
2.28 Station Service Debit	Modification	<p>Added reference to '<i>electricity storage resources</i> that are registered to withdraw'.</p> <p>This update was made in response to internal feedback.</p>
2.29 Operating Reserve Non-Accessibility Charge and Associated Reversal Charges	New	<p>New section 2.29 on three settlement claw-back modifications to align the principles of Operating Reserve Accessibility (ORA) with the Market Renewal Program design:</p> <ul style="list-style-type: none"> • OR Standby Payment Claw-back (ORSCB - <i>charge types</i> 206,208 and 210). These are existing <i>charge types</i> that have been updated for MRP; • RT MWP reversal charge (RT_MWP_RC – <i>charge types</i> 1908 and 1909). These are new <i>charge types</i>; and • RT GOG clawback (RT_GOG_CB – <i>charge type</i> 1915). This is a new <i>charge type</i>. <p>This change, with sample calculations and examples was presented to stakeholders at the September 21, 2023 Engagement Webinar.</p>
3.2 Forecasting Service Uplift	Modification	Added reference to ' <i>electricity storage resources</i> that are registered to withdraw'.

Market Manual Section	Type of Change	Description
		This update was made in response to internal feedback.
3.4 Capacity Obligations	New Editorial Modification	New section 3.4 for Capacity Obligations. Note: this is existing content found in section 1.6.26 of MM5.5: Physical Markets Settlement Amounts which and has been relocated here and updated for MRP.
4.2 Reference Level Settlement Charge Uplifts (RLSCU)	Modification	<i>Market rule</i> reference updated from MR Ch.9 s.3.10 to MR Ch.9 s.3.11.
4.3.3 Ex-Post Mitigation Settlement Charge Uplift (EXP_MSCU)	Modification	Added reference to ' <i>electricity storage resources</i> that are registered to withdraw' to both EXP_PWSU and EXP_EWSCU. Corrected acronym from EXP_PWSCU to EXP_PWSU. This update was made in response to internal feedback.
5 Market Remediation	Editorial	Prefaced 'calculation engine' with ' <i>pre-dispatch</i> ' in sentence: 'For additional clarity, in the event that a pre-dispatch error or a...' This update was made in response to internal feedback.
Appendix C Price Bias Adjustment Factors Calculation Method for the Real-Time Import and Export Failure Charge	Modification	Added ' <i>energy market price</i> ' after pre-dispatch. This update was made in response to internal feedback.
Acronyms	Modification	Updated list of acronyms. This update was made in response to internal feedback.

IESO Charge Types and Equations

This is an existing document that has been updated for MRP.

Notes:

1. This document has been adapted to align with the new MRP document format. Changes to align with that format will not be explicitly identified in this table.
2. Tax treatment of MRP *charge types* is under review and has been identified as “to be determined”, or “TBD”.
3. Capacity Auction: all *charge types* and equations, variable descriptions and rounding conventions have been excluded and will be included after the existing *market rule* amendments processes related to the capacity auction are complete.
4. Operating Reserve Accessibility (ORA): all *charge types* and equations, variable descriptions and rounding conventions related to ORA have been excluded and will be included following the planned stakeholder engagement to discuss the necessary MRP updates to ORA.
5. Any updates required to *charge types* associated with *applicable law* will be incorporated into IESO Charge Types and Equations upon completion of review and update of the respective *OEB* regulations. For example, *charge types* 142, 144 and 145 will continue to make reference to variables that have been retired under MRP.
6. Style of all active hourly uplift equations has been updated under MRP as follows:
 - from $\sum_c^{M,T} TD_{k,h,(251)}$ to $\sum_c^{M,T} TD_{k,h,c}$
7. The Day-Ahead Market Balancing Credit has been separated into two *charge types*:
 - *charge type* 1815 has been updated to reflect only the *energy* component and renamed to Day-Ahead Market Balancing Credit – Energy;
 - *charge type* 1816 Day-Ahead Market Balancing Credit – Operating Reserve has been added to reflect the *operating reserve* component;
 - MM 5.5: IESO-Administered Markets Settlement Amounts and the *market rules* will be updated as part of the Final Alignment batch to capture these updates;
 - Further details on this change will be presented at the September stakeholder engagement.

Summary of Changes to IESO Charge Type and Equations: August 2023

The following table summarizes the changes made to IESO Charge Types and Equations.

Market Manual Section	Type of Change	Description
1 Introduction	Modified	This section includes the following subsections: <ul style="list-style-type: none"> • 1.1: Purpose

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> • 1.2: Scope • 1.3: Tax Treatment • 1.4: Contact Information
1.1 Purpose	Modified	Updated to align to new MRP document structure.
1.2 Scope	Modified	Updated to align to new MRP document structure.
1.3 Tax Treatment	No Change	No change.
1.4 Contact Information	Modified	Previous section 1.4 – “Who Should Use This Document” has been replaced with “Contact Information” in accordance with the new MRP document template.
Previous 1.5 Conventions	Relocated	The contents of this section have been relocated to a preamble section on page 5 to align to new MRP document template.
Previous 1.6 How This Document is Organized	Deleted	Not required under new MRP document template.
2 Active IESO Charge Types and Equations	Modified	<p>This section has been renamed to ‘Active IESO Charge Types and Equations’ (previously IESO Charge Types and Equations that are Part of an Active IESO-Administered Market), and the contents of this section and its subsections are applicable only to ‘active’ <i>charge types</i> and equations.</p> <p>This section includes the following subsections:</p> <ul style="list-style-type: none"> • 2.1: Variable Descriptions • 2.2: Charge Types and Equations • 2.3: Rounding Conventions – by Charge Type • 2.4: Settlement of Physical Bilateral Contracts
2.1 Variable Descriptions	Modified	This section has been modified to include only variable descriptions that are specific to <i>charge types</i> associated with <i>applicable law</i> within Section 2.2.

Market Manual Section	Type of Change	Description
		<p>Variables not defined in this section are as defined in MR Ch.9 Appendix 9.2 or within the relevant <i>market rule</i> that is specific to the <i>charge type</i>.</p> <p>Table 2-1 modified as follows:</p> <ul style="list-style-type: none"> last two columns ('Market Rules Reference' and 'Relation to the corresponding variable description within the IESO Market Rules') merged into new column 'Relevant Reference and Other Information' new column added 'Maximum Rounding Convention in Settlement Statements or Data Files' that includes content from section 2.3 Rounding Conventions-by Settlement Variable which as been deleted under MRP.
2.2 Charge Types and Equations	Modified	<p>This section contains all active <i>IESO charge types</i> and equations that are:</p> <ul style="list-style-type: none"> part of the <i>IESO-administered market</i>, and associated with non-market <i>settlement</i> programs as mandated by <i>applicable law</i>, administered by the <i>IESO</i>. <p>This section includes the following subsections:</p> <ul style="list-style-type: none"> 2.2.1 Financial Market Charge Types and Equations 2.2.2 Physical Market Charge Types and Equations <p>To facilitate review of this section:</p> <ul style="list-style-type: none"> new <i>charge types</i> introduced under MRP have been labelled 'MRP new'; and existing <i>charge types</i> that have been updated under MRP have been labelled 'MRP updated'. <p>The <i>charge types</i> within section 2.2 that have not been identified as either 'MRP new' or 'MRP updated' are:</p> <ul style="list-style-type: none"> not changing due to MRP, or related to <i>applicable law</i> and ancillary service contracts. Upon completion of review of <i>OEB</i> regulations and ancillary service contracts, any required updates to the respective <i>charge type</i> and equation will be made at that time.
2.3 Rounding Conventions – by Charge Type	Modified Relocated	<p>The contents of this section have been updated for MRP and has been renumbered to section 2.3 (previously section 2.4).</p> <p>This section contains a description of rounding conventions for <i>charge type</i> calculations within Section 2.2.</p>

Market Manual Section	Type of Change	Description
		<p>This section includes the following subsections:</p> <ul style="list-style-type: none"> • 2.3.1: General Notes • 2.3.2: Key to the Table of Rounding Conventions for Individual Charge Types <p>Previous section 2.3 – Rounding Conventions – by Settlement Variable has been deleted and the contents have been:</p> <ul style="list-style-type: none"> • moved to MR Ch.9 Appendix 9.2, which will be updated as part of the Final Alignment batch to include the number of decimal places; or • incorporated in section 2.1 'Variable Descriptions' if the variable is related to <i>applicable law</i>.
<p>2.4 Settlement of Physical Bilateral Contracts</p>	<p>Modified Relocated</p>	<p>The contents of this section have been updated for MRP and has been renumbered to section 2.4 (previously section 2.5). The original contents of previous section 2.5 have been relocated to new section 3 'Inactive IESO Charge Types and Equations'.</p> <p>This section contains a description of <i>physical bilateral contract quantities</i>, their usage by the <i>settlements</i> system, and their use by <i>market participants</i> as a vehicle for transferring components of <i>hourly uplifts</i>.</p> <p>This section includes the following subsections:</p> <ul style="list-style-type: none"> • 2.4.1: Market Price of Energy Applied to Location of Physical Bilateral Contract • 2.4.2: The Nature of the Physical Bilateral Contract Quantity • 2.4.3: Allocation of Hourly Uplift Components Between Buying and Selling Market Participants <p>Subsection 2.4.1 has been updated for MRP as follows:</p> <ul style="list-style-type: none"> • pricing in <i>day-ahead market</i> and <i>real-time market</i> to be applied based on location of <i>physical bilateral contract</i>. <p>Subsection 2.4.3 has been updated for MRP as follows:</p> <ul style="list-style-type: none"> • allocation of hourly uplift components includes new MRP <i>charge types</i>; and • reallocate equation reflects both DAM and RT.

Market Manual Section	Type of Change	Description
Previous 2.6 Exemptions from the Day-Ahead Import Failure Charge, Day-Ahead Export Failure Charge, and Day-Ahead Linked Wheel Failure Charge	Relocated	The contents of this section and its subsections are no longer applicable under MRP and have been relocated to new section 3 'Inactive IESO Charge Types and Equations'.
3 Inactive IESO Charge Types and Equations	Modified	<p>The provisions of this section are applicable to those <i>IESO charge types</i> and equations that are no longer active and have been retained in the event that a re-calculation of the <i>charge type</i> is required.</p> <p>This section includes the following subsections:</p> <ul style="list-style-type: none"> • 3.1: Variable Descriptions • 3.2: Charge Types and Equations • 3.3: Rounding Conventions – by Settlement Variable • 3.4: Rounding Conventions – by Charge Type • 3.5: Settlement of Physical Bilateral Contracts • 3.6: Exemptions from the Day-Ahead Import Failure Charge, Day-Ahead Export Failure Charge, and Day-Ahead Linked Wheel Failure Charge
References	Modified	The list of <i>market manuals</i> , <i>IESO</i> documents and <i>applicable law</i> documents has been updated.

Summary of Changes to IESO Charge Type and Equations: January 2024

Notes:

1. Minor wording changes to align with other batches (*market rules* and *market manuals*) have not been reflected in this version of IESO Charge Types and Equations. These updates will be made as part of Final Alignment. For example:
 - adding 'that is registered to withdraw/inject' when referring to *dispatchable electricity storage resource* or *self-scheduling electricity storage resources*; and
 - adding 'energy trader participating with a' when referring to *boundary entity resource – exports/imports*'.

2. Updates were not made to section 2.4 Settlement of Physical Bilateral Contracts. Any updates will be made as part of Final Alignment.

Market Manual Section	Type of Change	Description
2.2 Charge Types and Equations	Modified	<p>Throughout, <i>market rule</i> reference to all hourly uplifts has been modified from MR Ch.9 s.3.10 to MR Ch.9 s.3.11:</p> <ul style="list-style-type: none"> • <i>charge types</i> 186,201,203,205,250,252,254,1120,1865,1950,1970,1977,1980 and 1981
2.2 Charge Types and Equations	Modified New	<p><u>Intertie Failure Charges:</u></p> <p>These <i>charge types</i> have been retired under MRP:</p> <ul style="list-style-type: none"> • <i>charge type</i> 135 – Real-Time Import Failure Charge • <i>charge type</i> 136 – Real-Time Export Failure Charge <p>and replaced with the following <i>charge types</i>:</p> <ul style="list-style-type: none"> • <i>charge type</i> 1828 – Day-Ahead Market Import Failure Charge • <i>charge type</i> 1829 – Day-Ahead Market Export Failure Charge • <i>charge type</i> 1928 – Real-Time Import Failure Charge • <i>charge type</i> 1929 – Real-Time Export Failure Charge <p><i>Charge type</i> 186 has been:</p> <ul style="list-style-type: none"> • renamed to Intertie Failure Charge Uplift (INFCU) from Real-Time Intertie Failure Charge Uplift (RT_INFCU) • modified to reflect the updated set of <i>charge types</i> 'c' that are uplifted: <ul style="list-style-type: none"> • removed <i>charge types</i> 135 and 136 • added new <i>charge types</i> 1828,1829,1928 and 1929 <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p>
2.2 Charge Types and Equations	Modified	<p><u>Operating Reserve Non-Accessibility (ORA):</u></p> <p>Note: Operating Reserve Non-Accessibility <i>charge types</i> were initially excluded from IESO Charge Types and Equations, published August 4, 2023.</p> <p>Added back and modified <i>charge types</i> for OR Standby Payment Claw-back (ORSCB):</p> <ul style="list-style-type: none"> • <i>charge type</i> 206 – 10-Minute spinning non-Accessibility Settlement Amount

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> • <i>charge type 208</i> – 10-Minute non-spinning Accessibility Settlement Amount • <i>charge type 210</i> – 30-Minute non-Accessibility Settlement Amount <p>Modifications were made to align the principles of ORA with the Market Renewal Program design. This change, with sample calculations and examples was presented to stakeholders at the September 21, 2023 Engagement Webinar.</p>
2.2 Charge Types and Equations	Modified	<p><i>Settlement</i> resolution updated from 'Hourly' to 'Interval' for the following <i>charge types</i>:</p> <ul style="list-style-type: none"> • <i>charge type 213</i> – Real-Time 10-Minute Spinning Reserve Settlement Credit • <i>charge type 215</i> – Real-Time 10-Minute Non-Spinning Reserve Settlement Credit • <i>charge type 217</i> – Real-Time 30-Minute Operating Reserve Settlement Credit <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Modified	<p><u>Operating Reserve Uplifts:</u></p> <p><i>Charge type 250</i> – 10-Minute Spinning Reserve Hourly Uplift has been:</p> <ul style="list-style-type: none"> • modified to reflect the updated set of <i>charge types 'c'</i> that are uplifted to include <i>charge type 206</i> - 10-Minute spinning non-Accessibility Settlement Amount <p><i>Charge type 252</i> – 10-Minute Non-Spinning Reserve Hourly Uplift has been:</p> <ul style="list-style-type: none"> • modified to reflect the updated set of <i>charge types 'c'</i> that are uplifted to include <i>charge type 208</i> - 10-Minute non-spinning Accessibility Settlement Amount <p><i>Charge type 254</i> – 30-Minute Operating Reserve Hourly Uplift has been:</p> <ul style="list-style-type: none"> • modified to reflect the updated set of <i>charge types 'c'</i> that are uplifted to include <i>charge type 210</i> - 30-Minute non-Accessibility Settlement Amount <p>This update was made in response to internal feedback.</p>

Market Manual Section	Type of Change	Description
2.2 Charge Types and Equations	Modified	<p><u>Non-dispatchable Generators:</u></p> <p><i>Charge type 1114 – Non-Dispatchable Generator Energy Settlement Amount (HPTSA_NDG) has been retired:</i></p> <ul style="list-style-type: none"> • <i>non-dispatchable generation resources and self-scheduling electricity storage resources</i> that are injecting, participate in the <i>day-ahead market</i> by submitting <i>dispatch data</i> indicating the amount of <i>energy</i> expected to be provided to the <i>day-ahead market</i>; • the <i>IESO's</i> initial proposed implementation did not account for MWs scheduled in the <i>day-ahead market</i> for these resources, and as such, they would be <i>settled</i> based on actual injection at RT_LMP. This would be inconsistent with the design intent; • <i>non-dispatchable generation resources and self-scheduling electricity storage resources</i> that are injecting should be subjected to two-settlement in order to account for the MWs scheduled in the <i>day-ahead market</i>. <p>This change was presented to stakeholders at the December 15, 2023 Engagement Webinar.</p> <p><i>Charge type 1100 has been:</i></p> <ul style="list-style-type: none"> • renamed to Day-Ahead Market Energy Settlement Amount for Generators from Day-Ahead Market Energy Settlement Amount for Dispatchable Generators <p><i>Charge type 1101 has been:</i></p> <ul style="list-style-type: none"> • renamed to Real-Time Energy Settlement Amount for Generators from Real-Time Energy Settlement Amount for Dispatchable Generators <p>The modification was made to reflect the inclusion that <i>non-dispatchable generation resources</i> will now be <i>settled</i> under these <i>charge types</i>.</p>
2.2 Charge Types and Equations	Editorial	<p>Corrections to the following <i>charge type</i> names, which were missing the word 'Amount':</p> <ul style="list-style-type: none"> • <i>charge type 1108 –Day-Ahead Market Energy Settlement Amount for Virtual Transactions to Buy</i> • <i>charge type 1110 – Day-Ahead Market Energy Settlement Amount for Imports</i>

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> <i>charge type</i> 1112 – Day-Ahead Market Energy Settlement Amount for Exports <p>The update was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><i>Charge type</i> 1120 – Real-Time Net Interchange Scheduling Limit Residual Uplift (RT_NISLRU):</p> <ul style="list-style-type: none"> added variable 'RT_NISLRU_h' before the equal sign to the equation which was missing. <p>The update was made in response to stakeholder feedback.</p>
2.2 Charge Types and Equations	Modified Editorial	<p><u>Capacity Obligation:</u></p> <p>Note: Capacity Obligation <i>charge types</i> were initially excluded from IESO Charge Types and Equations, published August 4, 2023.</p> <p>Added back the following <i>charge types</i>:</p> <ul style="list-style-type: none"> <i>charge type</i> 1314 – Capacity Obligation – Availability Payment <i>charge type</i> 1315 – Capacity Obligation – Availability Charge <i>charge type</i> 1316 – Capacity Obligation – Administration Charge <i>charge type</i> 1317 – Capacity Obligation – Dispatch Charge <i>charge type</i> 1318 – Capacity Obligation – Capacity Charge <i>charge type</i> 1319 – Capacity Obligation – Buy-Out Charge <i>charge type</i> 1320 – Capacity Obligation – Dispatch Test Payment and Emergency Activation Payment <i>charge type</i> 1321 – Capacity Obligation – Capacity Import Call Failure Charge <i>charge type</i> 1322 – Capacity Obligation – Capacity Deficiency Charge <i>charge type</i> 1323 – Capacity Obligation – In-Period Cleared UCAP Adjustment Charge <i>charge type</i> 1325 – Capacity Obligation – Availability Charge True-up Payment <i>charge type</i> 1350 – Capacity Based Recovery Amount for Class A Loads <i>charge type</i> 1350 – Capacity Based Recovery Amount for Class B Loads <p>General formatting/clean-up updates were made to these capacity obligation <i>charge types</i>.</p>

Market Manual Section	Type of Change	Description
		<p>MRP updates were made to the following capacity obligation <i>charge types</i>:</p> <ul style="list-style-type: none"> • <i>charge type 1315 – Capacity Obligation – Availability Charge</i> <ul style="list-style-type: none"> • ‘Where’ clause: replaced references to <i>day-ahead commitment process</i> to <i>day-ahead market</i>; • ‘Where’ clause: added ‘in either the <i>day-ahead market</i> or the <i>real-time market</i>’ as it applies to a <i>capacity market participant</i> participating with an <i>hourly demand response resource</i> or a <i>capacity dispatchable load resource</i>; • ‘Where’ clause: relaced reference to <i>pre-dispatch hour</i> to <i>pre-dispatch process</i> as it applies to a <i>capacity market participant</i> participating with a <i>capacity generation resource, system-backed capacity import resource, generator-backed capacity import resource</i> or <i>capacity storage resource</i>. • <i>charge type 1320 – Capacity Obligation – Dispatch Test Payment and Emergency Activation Payment</i> <ul style="list-style-type: none"> • equation updated to replace ‘HOEP_h’ with ‘DAM_LMP^z_h’ for <i>hourly demand response resources</i> that are not associated with <i>load equipment</i> registered as a <i>price responsive load</i>; • new equation for <i>hourly demand response resources</i> that are associated with <i>load equipment</i> registered as a <i>price responsive load</i> to reflect that the price input is RT_LMP^m_{k,h}. <p>These changes were made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><u>Day-Ahead Market Make-Whole Payment – Energy (Component 1):</u></p> <p>Editorial updates made to <i>charge type 1800 – Day-Ahead Market Make-Whole Payment-Energy</i>:</p> <ul style="list-style-type: none"> • as it applies to hydroelectric <i>generation resources</i>: <ul style="list-style-type: none"> • ‘Where’ clause: removed ‘binding’ prior to ‘reliability constraint’; • ‘Where’ clause: added ‘submitted by <i>market participant</i> ‘k’ for <i>delivery point</i> ‘m’ as daily <i>dispatch data</i>’ to definition of ‘f’. • as it applies to <i>physical hourly demand response price responsive loads</i>: <ul style="list-style-type: none"> • ‘Where’ clause: updated definition of ‘m’ to replace ‘that is registered as the’ with ‘associated with such’ <i>price responsive load</i>.

Market Manual Section	Type of Change	Description
		This changes was made in response to internal feedback.
2.2 Charge Types and Equations	Deleted	<p><u>Day-Ahead Market Make-Whole Payment – 10-Minute Spinning Reserve (Component 2):</u></p> <p>Removed <i>charge type</i> 1801 – Day-Ahead Market Make-Whole Payment – 10-Minute Spinning Reserve:</p> <ul style="list-style-type: none"> • as it applies to <i>boundary entity resources</i> – imports and <i>boundary entity resources</i> – exports, as <i>boundary entity resources</i> cannot provide 10S <i>operating reserve</i> <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><u>Day-Ahead Market Generator Offer Guarantee – Energy (Component 1):</u></p> <p>Editorial updates made to <i>charge type</i> 1804 – Day-Ahead Market Generator Offer Guarantee - Energy:</p> <ul style="list-style-type: none"> • ‘Where’ clause: added ‘<i>generation unit</i>’ and ‘registered as a <i>pseudo-unit</i> but is’; • ‘Where’ clause: replaced ‘binding combined cycle physical unit constraint’ with ‘minimum constraint applied for combined cycle operation consistent with combustion turbine comment’. <p>These changes were made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><u>Day-Ahead Market Generator Offer Guarantee – Over Midnight (Component 3):</u></p> <p>Editorial updates made to <i>charge type</i> 1806 – Day-Ahead Market Generator Offer Guarantee – Over Midnight:</p> <ul style="list-style-type: none"> • ‘Where’ clause: replace references to Day -1 with Day 0. <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><u>Day-Ahead Market Generator Offer Guarantee – Start-Up (Component 4):</u></p> <p>Editorial updates made to <i>charge type</i> 1807 – Day-Ahead Market Generator Offer Guarantee – Start-up:</p> <ul style="list-style-type: none"> • ‘Where’ clause: added variable DAM_GOG_COMP4^{c_{k,h}} and definition. <p>This change was made in response to internal feedback.</p>

Market Manual Section	Type of Change	Description
2.2 Charge Types and Equations	Modified	<p><u>Day-Ahead Market Balancing Credit:</u></p> <p><i>Charge type</i> 1815 – Day-Ahead Market Balancing Credit - Energy:</p> <ul style="list-style-type: none"> equation updated for both import transactions and export transactions <p><i>Charge type</i> 1816 – Day-Ahead Market Balancing Credit – Operating Reserve:</p> <ul style="list-style-type: none"> equation updated for <i>boundary entity resources</i> <p>This aligns with the intent of the DAM_BC to only provide compensation when the IESO curtails an import transaction or export transaction for <i>energy</i> or <i>operating reserve</i> relative to its DAM position. This change was presented to stakeholders at the September 21, 2023 Engagement Webinar.</p>
2.2 Charge Types and Equations	Modification	<p><u>Day-Ahead Market Reliability Scheduling Uplift:</u></p> <p><i>Charge type</i> 1851 – Day-Ahead Market Reliability Scheduling Uplift</p> <ul style="list-style-type: none"> updated variable $DAM_EOP_{r,k,h}^i$ in equation for determining $DAM_COMP2_{k,h}^i$ to $DAM_OR_EOP_{r,k,h}^i$. <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><i>Charge type</i> 1865 – Day-Ahead Market Balancing Credit Uplift (DAM_BCU):</p> <ul style="list-style-type: none"> added 'Uplift' to <i>charge type</i> name which was missing. <p>The update was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial Modification	<p><u>Real-Time Make-Whole Payment – Lost Cost for Energy:</u></p> <p><i>Charge type</i> 1900 – Real-Time Make-Whole Payment – Lost Cost for Energy</p> <ul style="list-style-type: none"> added 'Lost Cost for Energy' to <i>charge type</i> name which was missing; as it applies to <i>dispatchable generation resources</i>: <ul style="list-style-type: none"> 'Where' clause: added 'submitted by <i>market participant</i> 'k' for <i>delivery point</i> 'm' as <i>dailydispatch data</i>' to definition of 'f. as it applies to <i>dispatchable loads</i>: <ul style="list-style-type: none"> removed $Max\{0,$ from equation <p>These changes were made in response to internal feedback.</p>

Market Manual Section	Type of Change	Description
2.2 Charge Type and Equations	Deleted	<p><u>Real-Time Make-Whole Payment – Lost Cost for 10-Minute Spinning Reserve:</u></p> <p>Removed <i>charge type</i> 1901 – Real-Time Make-Whole Payment – Lost Cost for 10-Minute Spinning Reserve:</p> <ul style="list-style-type: none"> as it applies to <i>boundary entity resources</i> – imports and <i>boundary entity resources</i> – exports, as <i>boundary entity resources</i> cannot provide 10S <i>operating reserve</i> <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><u>Real-Time Make-Whole Payment – Lost Opportunity Cost for Energy:</u></p> <p><i>Charge type</i> 1904 – Real-Time Make-Whole Payment – Lost Opportunity Cost for Energy</p> <ul style="list-style-type: none"> as it applies to <i>dispatchable generation resources</i>: <ul style="list-style-type: none"> 'Where' clause: added 'submitted by <i>market participant</i> 'k' for <i>delivery point</i> 'm' as daily <i>dispatch data</i>' to definition of 'f. as it applies to the steam turbine: <ul style="list-style-type: none"> 'Where' clause: modified T_0 and T_1 to t_0 and t_1, to align with superscripts used in the equation added 'Note:' for additional clarity to the definition of these superscripts. <p>These changes were made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial Modified	<p><u>Real-Time Make-Whole Payment – Lost Opportunity Cost for Energy:</u></p> <p><i>Charge type</i> 1904 – Real-Time Make-Whole Payment – Lost Opportunity Cost for Energy</p> <ul style="list-style-type: none"> as it applies to <i>dispatchable loads</i>: <ul style="list-style-type: none"> removed $\text{Max}[0, \dots]$ from equation <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	New	<p><u>Operating Reserve Non-Accessibility (ORA)</u></p> <p>New <i>charge types</i> introduced under MRP:</p> <ul style="list-style-type: none"> <i>charge type</i> 1908 – Real-Time Make-Whole Payment - Operating Reserve Non-Accessibility Lost Cost Reversal (RT_OLCRC)

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> <i>charge type</i> 1909 – Real-Time Make-Whole Payment – Operating Reserve Non-Accessibility Lost Opportunity Cost Reversal (RT_OLOCRC) <i>charge type</i> 1915 – Real-Time Generator Offer Guarantee Clawback (RT_GOG_CB) <p>New <i>charge types</i> introduced to align the principles of ORA with the Market Renewal Program design. These <i>settlement amounts</i>, with sample calculations and examples was presented to stakeholders at the September 21, 2023 Engagement Webinar.</p>
2.2 Charge Types and Equations	Editorial Modified	<p><u>Real-Time Generator Offer Guarantee – Energy (Component 1):</u></p> <p><i>Charge type</i> 1910 – Real-Time Generator Offer Guarantee – Energy</p> <ul style="list-style-type: none"> as it applies to <i>GOG-eligible resources</i> not associated with a <i>pseudo-unit</i>: <ul style="list-style-type: none"> 'Where' clause: added clause d. as it applies to the combustion turbine: <ul style="list-style-type: none"> updated variable from RT_CMT_DIPC^{c,t}_{k,h} to RT_DIPC^{c,t}_{k,h} <p>These changes were made in response to internal feedback.</p>
2.2 Charge Types and Equations	Modified	<p><u>Real-Time Generator Offer Guarantee – Operating Reserve (Component 2):</u></p> <p><i>Charge type</i> 1911 – Real-Time Generator Offer Guarantee – Operating Reserve:</p> <ul style="list-style-type: none"> as it applies to the combustion turbine: <ul style="list-style-type: none"> updated variable from RT_OR_CMT_DIPC^{c,t}_{r,k,h} to RT_OR_DIPC^{c,t}_{r,k,h} <p>This change was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial Modified	<p><u>Real-Time Generator Offer Guarantee – Over Midnight (Component 3):</u></p> <p><i>Charge type</i> 1912 – Real-Time Generator Offer Guarantee – Over Midnight:</p> <ul style="list-style-type: none"> 'Where' clause: replace references to Day 0 with Day 1 and Day -1 with Day 0 as it applies to the combustion turbine: <ul style="list-style-type: none"> updated variable from RT_CMT_DIPC^{c,t}_{r,k,h} to RT_DIPC^{c,t}_{r,k,h} <p>This change was made in response to internal feedback.</p>

Market Manual Section	Type of Change	Description
2.2 Charge Types and Equations	Modified	<p><u>Generator Failure Charge:</u></p> <p><i>Charge type 1920 – Generator Failure Charge – Market Price Component</i></p> <ul style="list-style-type: none"> updated definition of 'T' for <i>delivery point 'm'</i>, combustion turbine <i>generation unit delivery point 'c'</i> and steam turbine <i>generation unit delivery point s'</i>. <p><i>Charge type 1921 – Generator Failure Charge – Guarantee Cost Component</i></p> <ul style="list-style-type: none"> updated definition of 'T1' for combustion turbine <i>generation unit delivery point 'c'</i> and steam turbine <i>generation unit delivery point s'</i>. <p>This update was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Modified Editorial	<p><i>Charge type 1930 - Day-Ahead Market Reference Level Settlement Charge:</i></p> <ul style="list-style-type: none"> removed $x \text{ PM_RLSC}_{\text{mcepw}}$ from equation and 'Where' clause <p>This update was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Modified Editorial	<p><i>Charge type 1931 – Real-Time Reference Level Settlement Charge:</i></p> <ul style="list-style-type: none"> removed $x \text{ PM_RLSC}_{\text{mcepw}}$ from equation and 'Where' clause <p>This update was made in response to internal feedback.</p>
2.2 Charge Types and Equations	Editorial	<p><u>Mitigation Amount for Physical Withholding:</u></p> <p>'Where' clause for all instances of variable 'MWhs Failed' updated for the following <i>charge types</i>:</p> <ul style="list-style-type: none"> <i>charge type 1932 – Mitigation Amount for Physical Withholding – Energy</i> <i>charge type 1933 – Mitigation Amount for Physical Withholding – 10S Operating Reserve</i> <i>charge type 1934 – Mitigation Amount for Physical Withholding – 10N Operating Reserve</i> <i>charge type 1935 – Mitigation Amount for Physical Withholding – 30R Operating Reserve</i> <p>Correction to <i>charge type</i> name for <i>charge type 1933</i> to replace 10R with 10s.</p> <p>These changes were made in response to internal feedback.</p>

Market Manual Section	Type of Change	Description
2.2 Charge Types and Equations	Editorial	<p><u>Mitigation Amount for Intertie Economic Withholding:</u></p> <p>'Where' clause for all instances of variable 'MWhs Failed' updated for the following <i>charge types</i>:</p> <ul style="list-style-type: none"> • <i>charge type</i> 1936 – Mitigation Amount for Intertie Economic Withholding – Energy • <i>charge type</i> 1937 – Mitigation Amount for Intertie Economic Withholding – 10N Operating Reserve • <i>charge type</i> 1938 – Mitigation Amount for Intertie Economic Withholding – 30R Operating Reserve <p>These changes were made in response to internal feedback.</p>
2.2 Charge Types and Equations	Modified	<p><i>Charge type</i> 1950 – Real-Time Make-Whole Payment Uplift</p> <ul style="list-style-type: none"> • added <i>charge types</i> 1908 and 1909 to the set of <i>charge types</i> 'c' to be uplifted <p>This update was made to capture the new <i>charge types</i> for <i>operating reserve</i> non-accessibility introduced under MRP.</p>
2.2 Charge Types and Equations	Modified	<p><i>Charge type</i> 1960 – Real-Time Generator Offer Guarantee Uplift:</p> <ul style="list-style-type: none"> • added RT_GOG_CB to equation and to 'Where' clause <p>This update was made to capture the new <i>charge type</i> for <i>operating reserve</i> non-accessibility introduced under MRP.</p>
2.2 Charge Types and Equations	Editorial	<p><i>Charge type</i> 1971 – Generator Failure Charge – Guarantee Cost Component Uplift (GFC_GCCU):</p> <ul style="list-style-type: none"> • added 'Uplift' to <i>charge type</i> name which was missing. <p>The update was made in response to internal feedback.</p>
2.3 Rounding Conventions – by Charge Type	New	<p>The following <i>charge types</i> have been added to this section and aligns to Section 2.2 Charge Types and Equations:</p> <ul style="list-style-type: none"> • <i>charge type</i> 206 – 10-Minute spinning non-Accessibility Settlement Amount • <i>charge type</i> 208 – 10-Minute non-spinning Accessibility Settlement Amount • <i>charge type</i> 210 – 30-Minute non-Accessibility Settlement Amount • <i>charge type</i> 1828 – Day-Ahead Market Import Failure Charge • <i>charge type</i> 1829 – Day-Ahead Market Export Failure Charge

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> • <i>charge type</i> 1908 – Real-Time Make-Whole Payment – Operating Reserve Non-Accessibiity Lost Cost Reversal • <i>charge type</i> 1909 – Real-Time Make-Whole Payment – Operating Reserve Non-Accessibility Lost Opportunity Cost Reversal • <i>charge type</i> 1915 – Real-Time Generator Offer Guarantee – Operating Reserve Non-Accessibility Reversal • <i>charge type</i> 1928 – Real-Time Import Failure Charge • <i>charge type</i> 1929 – Real-Time Export Failure Charge
2.3 Rounding Conventions – by Charge Type	Deleted	<p>The following <i>charge types</i> have been deleted from this section, and aligns to Section 2.2 Charge Types and Equations:</p> <ul style="list-style-type: none"> • <i>charge type</i> 135 – Real-Time Import Failure Charge • <i>charge type</i> 136 – Real-Time Export Failure Charge • <i>charge type</i> 1114 – Non-Dispatchable Generator Energy Settlement Amount • <i>charge type</i> 1801 – Day-Ahead Market Make-Whole Payment – 10-Minute Operating Reserve (for <i>boundary entity resources-imports</i> and <i>boundary entity resources-exports</i>) • <i>charge type</i> 1901 – Real-Time Make-Whole Payment – Lost Cost for 10-Minute Spinning Reserve (for <i>boundary entity resources-imports</i> and <i>boundary entity resources-exports</i>)
2.3 Rounding Conventions – by Charge Type	Editorial	<p>The following <i>charge type</i> names have been updated in this section and aligns to Section 2.2 Charge Types and Equations:</p> <ul style="list-style-type: none"> • <i>charge type</i> 186 – from Real-Time Intertie Failure Charge Uplift to Intertie Failure Charge Uplift • <i>charge type</i> 1100 – from Day-Ahead Market Energy Settlement Amount for Dispatchable Generators to Day-Ahead Market Energy Settlement Amount for Generators • <i>charge type</i> 1101 – from Real-Time Energy Settlement Amount for Dispatchable Generators to Real-Time Energy Settlement Amount for Generators • <i>charge type</i> 1933 – from Mitigation Amount for Physical Withholding – 10R Operating Reserve to Mitigation Amount for Physical Withholding – 10S Operating Reserve

Market Manual Section	Type of Change	Description
		<p>The following capacity obligation <i>charge types</i> have been added back to this section:</p> <ul style="list-style-type: none"> • <i>charge type</i> 1314 – Capacity Obligation – Availability Payment • <i>charge type</i> 1315 – Capacity Obligation – Availability Charge • <i>charge type</i> 1316 – Capacity Obligation – Administration Charge • <i>charge type</i> 1317 – Capacity Obligation – Dispatch Charge • <i>charge type</i> 1318 – Capacity Obligation – Capacity Charge • <i>charge type</i> 1319 – Capacity Obligation – Buy-Out Charge • <i>charge type</i> 1320 – Capacity Obligation – Dispatch Test Payment and Emergency Activation Payment • <i>charge type</i> 1321 – Capacity Obligation – Capacity Import Call Failure Charge • <i>charge type</i> 1322 – Capacity Obligation – Capacity Deficiency Charge • <i>charge type</i> 1323 – Capacity Obligation – In-Period Cleared UCAP Adjustment Charge • <i>charge type</i> 1325 – Capacity Obligation – Availability Charge True-up Payment • <i>charge type</i> 1350 – Capacity Based Recovery Amount for Class A Loads • <i>charge type</i> 1350 – Capacity Based Recovery Amount for Class B Loads
2.3 Rounding Conventions – by Charge Type	Modified	<p>The rounding conventions for the following <i>charge types</i> has been updated to reflect modifications made to the equations, and aligns to Section 2.2 Charge Types and Equations:</p> <ul style="list-style-type: none"> • <i>charge type</i> 1815 – Day-Ahead Market Balancing Credit - Energy • <i>charge type</i> 1816 – Day-Ahead Market Balancing Credit – Operating Reserve • <i>charge type</i> 1900 – Real-Time Make-Whole Payment – Lost Cost for Energy (as it applies to dispatchable loads)
3.1 Variable Descriptions	Modified	<p>Added the following variables to this section. The description has been updated under MRP:</p> <ul style="list-style-type: none"> • $CAEO_{h,k}^m$ • $DREBQ_{k,h}^m$ <p>These changes were made in response to internal feedback.</p>

Market Manual Section	Type of Change	Description
3.2.1 Inactive – Physical Market Charge Types and Equations	Modified	<p>The classification of the following <i>charge types</i> has been updated:</p> <ul style="list-style-type: none"> from 'MRP updated' to 'MRP retired' as they have been replaced with new <i>charge types</i> (<i>charge types</i> 1828, 1829, 1928 and 1929) under MRP. This change was presented to stakeholders at the December 15, 2023 Engagement Webinar. <ul style="list-style-type: none"> <i>charge type</i> 135 – Real-time Import Failure Charge <i>charge type</i> 136 – Real-time Export Failure Charge from 'MRP updated + name change' to 'MRP retired' as <i>non-dispatchable generation resources</i> will be <i>settled</i> under two-settlement <i>charge types</i> 1100 and 1101. This change was presented to stakeholders at the December 15, 2023 Engagement Webinar. <ul style="list-style-type: none"> <i>charge type</i> 1114 – Real-Time Energy Settlement Amount for Non-Dispatchable Generators
3.2.1 Inactive – Physical Market Charge Types and Equations	Editorial	<p><i>Charge type</i> 137:</p> <ul style="list-style-type: none"> updated <i>charge type</i> name from Generation Cost Guarantee – Output Based Pricing System Reimbursement Settlement Amount to Generation Cost Guarantee – Annual Carbon Charge Settlement Amount. This name change aligns to update made in current baseline version of IESO Charge Types and Equations. <p><i>Charge type</i> 1137 – Intertie Offer Guarantee Reversal:</p> <ul style="list-style-type: none"> Incorrectly classified this <i>charge type</i> as 'MRP retired'. Calculations for this <i>charge type</i> ended October 2011. Classification removed. <p>These updates were made in response to internal feedback.</p>
3.2.1 Inactive – Physical Market Charge	New	<p>The following <i>charge types</i> have been added to this section and classified as 'MRP updated' as the equations have been modified:</p> <ul style="list-style-type: none"> <i>charge type</i> 206 – 10-Minute spinning non-Accessibility Settlement Amount

Market Manual Section	Type of Change	Description
Types and Equations		<ul style="list-style-type: none"> • <i>charge type</i> 208 - 10-Minute non-Spinning non-Accessibility Settlement Amount • <i>charge type</i> 210 – 30-Minute non-Accessibility Settlement Amount • <i>charge type</i> 1315 – Capacity Obligation – Availability Charge • <i>charge type</i> 1320 – Capacity Obligation – Dispatch Test Payment and Emergency Activation Payment <p>These updates were made in response to internal feedback.</p>
3.3 Rounding Conventions – by Settlement Variable	Modified	<p>Added the following variable to this section to align with addition to Section 3.1 Variable Descriptions:</p> <ul style="list-style-type: none"> • $CAEO_{h,k}^m$ <p>This change was made in response to internal feedback.</p>
3.4 Rounding Conventions – by Charge Type	Modified	<p>The following <i>charge types</i> have been added to this section and align to Section 3.2 Charge Types and Equations. The equations have been modified under MRP.</p> <ul style="list-style-type: none"> • <i>charge type</i> 1315 – Capacity Obligation – Availability Charge • <i>charge type</i> 1320 – Capacity Obligation – Dispatch Test Payment and Emergency Activation Payment <p>These updates were made in response to internal feedback.</p>
3.4 Rounding Conventions – by Charge Type	Editorial	<p><i>Charge type</i> 137:</p> <ul style="list-style-type: none"> • updated <i>charge type</i> name from Generation Cost Guarantee – Output Based Pricing System Reimbursement Settlement Amount to Generation Cost Guarantee – Annual Carbon Charge Settlement Amount. • this name change aligns to update made in current baseline version of IESO Charge Types and Equations. <p>These updates were made in response to internal feedback.</p>

New Release of Settlements Batch Market Manuals – September 2023

Market Manual 5.6: Non-Market Settlement Programs

This version of MM 5.6 has been repurposed from “Physical Markets Settlement Invoicing” to “Non-Market Settlement Programs”. As introduced earlier in this document, this new MM 5.6 under MRP describes the non-market *settlement* programs as mandated by *applicable law*, administered by the *IESO*. These *settlement amounts* are currently found in MM 5.5: Physical Market Programs, and as indicated in the description of changes in MM 5.5 above, will be moved to new MM 5.6.

Note:

1. This *market manual* has been adapted to align with the new MRP document format. Changes to align to that format will not be explicitly identified in this table.
2. References to applicable legislation have been updated.
3. This *market manual* only reflects those non-market *settlement* programs that are active. As such, the following Appendices from current MM 5.5 have not been included in MM 5.6:
 - a. Appendix C: IESO Charge Types Applicable to the Authorized Charge
 - b. Appendix E: Expired Settlement Calculations Kept for Purposes of Re-Calculation
 - c. Appendix F: OPG Rebate

Summary of Changes to Market Manual 5.6: September 2023

Market Manual Section	Type of Change	Description
1 Introduction	Modified	This section includes the following subsections: <ul style="list-style-type: none"> • 1.1: Purpose • 1.2: Scope • 1.3: Overview • 1.4: Contact Information
2 Submission of Data to the IESO	New	This new section identifies the submission timelines for the submission of data by <i>market participants</i> to the <i>IESO</i> via the appropriate <i>settlement</i> form available within Online IESO and includes the following subsections: <ul style="list-style-type: none"> • 2.1: Submission of Data – Monthly Claims • 2.2: Submission of Data – Annual Claims
3 Transmission Services Charges for Embedded Generation	Relocated from MM 5.5	No substantive changes as a result of MRP. This section describes the <i>settlement of transmission services charges</i> for <i>embedded generation facilities</i> and includes the following subsection: <ul style="list-style-type: none"> • 3.1: Calculation Methodology

Market Manual Section	Type of Change	Description
4 Regulated Price Plan, Regulated Generation, Non-Utility Generator (NUG) Payments and Newly Contracted Generation	Relocated from MM 5.5	<p>No substantive changes as a result of MRP.</p> <p>This section describes all the <i>settlement amounts</i> introduced under the <i>Electricity Act, 2004</i> and includes the following subsections:</p> <ul style="list-style-type: none"> • 4.1: Regulated OPG Nuclear and Baseload Hydroelectric Generation • 4.2: Ontario Electricity Financial Corporation (OEFC) Adjustment • 4.3: Renewable Generation, Clean Generation and Demand-Side Projects • 4.4: Regulated Price Plan (RPP) • 4.5: Global Adjustment
5 Standard Offer Program (SOP)	Relocated from MM 5.5	<p>No substantive changes as a result of MRP.</p> <p>This section describes the <i>settlement amounts</i> under the Standard Offer Program (SOP) and includes the following subsections:</p> <ul style="list-style-type: none"> • 5.1: Renewable Energy Standard Offer Program (RESOP) • 5.2: Feed-in Tariff Program (FIT) • 5.3: Hydroelectric Contract Initiative (HCI) • 5.4: Hydroelectric Standard Offer Program (HESOP)
6 Other Contracted Generation	Relocated from MM 5.5	<p>No substantive changes as a result of MRP.</p> <p>New section that groups together <i>settlement amounts</i> associated with contracted generation and includes the following subsection:</p> <ul style="list-style-type: none"> • 6.1: Biomass NUG and Energy from Waste (EFW) Contracts
7 Electricity Support Programs	Relocated from MM 5.5	<p>No substantive changes as a result of MRP.</p> <p>New section that groups together <i>settlement amounts</i> associated with electricity support programs and includes the following subsections:</p> <ul style="list-style-type: none"> • 7.1: Ontario Electricity Support Program • 7.2: Ontario Rebate for Electricity Consumers Act, 2016 • 7.3: Fair Hydro Act, 2017 • 7.4: COVID-19 Energy Assistance Program (CEAP and CEAP-SB)

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> 7.5: Northern Energy Advantage Program (NEAP)
8 Smart Metering Charge	Relocated from MM 5.5	<p>No substantive changes as a result of MRP.</p> <p>This section describes the smart metering charge <i>settlement amount</i>.</p>
Appendix A Forms	Relocated from MM 5.5	<p>No substantive changes as a result of MRP.</p> <p>This section contains a list of forms that are used in this <i>market manual</i>.</p>
References	Modified	This section has been updated and contains a list of <i>market manuals</i> , other <i>IESO</i> documents, and list of regulations that are referenced in this <i>market manual</i> .

Market Manual 5.7: Settlement Process

This is an existing *market manual* that has been updated for MRP.

Note:

1. This *market manual* has been adapted to align with the new MRP document format. Changes to align with that format will not be explicitly identified in this table.

Summary of Changes to Market Manual 5.7: September 2023

Market Manual Section	Type of Change	Description
1 Introduction	Modified	<p>This section includes the following subsections:</p> <ul style="list-style-type: none"> 1.1: Purpose 1.2: Scope 1.3: Overview 1.4: Contact Information <p>Section 1.3: has been updated for MRP to include:</p> <ul style="list-style-type: none"> <i>day-ahead market, and</i> <i>virtual transactions</i>
2 Issuing and Retrieving Settlement	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsections 1.3.1, 1.3.2, 1.3.3 and 1.3.6.</p>

Market Manual Section	Type of Change	Description
Statements and Companion Data Files		<p>This section describes the <i>settlement statements</i> and companion files issued by the <i>IESO</i> to <i>market participants</i> and retrieving these files from the <i>IESO</i> Reports site. This section includes the following subsections:</p> <ul style="list-style-type: none"> • 2.1: Preliminary Settlement Statements • 2.2: Final Settlement Statements • 2.3: Recalculated Settlement Statements • 2.4: Retrieving Settlement Statement Files and Data Files
3 Interpreting Settlement Statement Files and Companion Data Files	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.3.4 and 1.5.</p> <p>This section describes the composition of a <i>settlement statement</i> and companion data files and how to interpret each. This section includes the following subsections:</p> <ul style="list-style-type: none"> • 3.1: Settlement Statement Files • 3.2: Companion Data Files • 3.3: Optional Measurement Data
4 Data Files for Transmission Services Charges for the Physical Market	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.3.5.</p> <p>This section lists the data files available to <i>transmission customers</i> and <i>transmitters</i> to help validate the <i>transmission services charges</i> that appear on the <i>settlement statement</i> and how to interpret these data files. This section includes the following subsection:</p> <ul style="list-style-type: none"> • 4.1: Interpreting the Transmission Services Charges Data Files
5 Settlement Delays	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.4.</p> <p>This sections describes the actions that the <i>IESO</i> may take when there are <i>settlement</i> delays and includes the following subsections:</p>

Market Manual Section	Type of Change	Description
		<ul style="list-style-type: none"> • 5.1: Delay in Issuing Settlement Statement(s) • 5.2: Failure of Communication System
Appendix A Forms	Modified	<p>No substantive changes as a result of MRP.</p> <p>This section contains a list of forms that are used in this <i>market manual</i>.</p> <p>Reference to form 'Notice of Dispute' has been deleted as the form is not referenced directly in the <i>market manual</i>.</p>
Appendix B Notice of Disagreement Screens	Deleted	Appendix B has been deleted as the relevant content has been relocated to MM 5.10 Settlement Disagreements.
References	Modified	This section contains a list of <i>market manuals</i> and other <i>IESO</i> documents that are referenced in this <i>market manual</i> .

Market Manual 5.8: Settlement Invoicing

This is an existing *market manual* that has been updated for MRP.

Note:

1. This *market manual* has been adapted to align with the new MRP document format. Changes to align with that format will not be explicitly identified in this table.

Summary of Changes to Market Manual 5.8: September 2023

Market Manual Section	Type of Change	Description
1 Introduction	Modified	<p>This section includes the following subsections:</p> <ul style="list-style-type: none"> • 1.1: Purpose • 1.2: Scope • 1.3: Overview • 1.4: Contact Information <p>Section 1.3: Overview, has been updated for MRP to include:</p> <ul style="list-style-type: none"> • <i>day-ahead market, and</i> • <i>virtual transactions</i>

Market Manual Section	Type of Change	Description
2 Issuance and Payment of Settlement Invoices	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.3.</p> <p>This section describes the issuance and payment of <i>settlement invoices</i> in both the <i>physical market</i> and financial market, and includes the following subsections:</p> <ul style="list-style-type: none"> • 2.1: Issuing Settlement Invoices • 2.2: Payment of Settlement Invoices
3 Retrieving Settlement Invoices	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.3.</p> <p>This section describes how <i>market participants</i> retrieve <i>settlement invoices</i> from the <i>IESO Reports</i> site. This section includes the following subsection:</p> <ul style="list-style-type: none"> • 3.1: Failure in Accessing Settlement Invoice
4 Interpreting and Reviewing Settlement Invoices	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.3.</p> <p>This section describes interpreting and reviewing <i>settlement invoices</i> includes the following subsection:</p> <ul style="list-style-type: none"> • 4.1: Reviewing Settlement Invoices
5 Invoice Delays and Estimated Invoices	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.4.</p> <p>This sections describes the actions that the <i>IESO</i> may take when there are delays in issuing <i>settlement invoices</i>.</p>
Appendix A Forms	No Change	<p>No substantive changes as a result of MRP.</p> <p>This section contains a list of forms that are used in this <i>market manual</i>.</p>
Appendix B Sample Invoice	Deleted	<p>Appendix B has been deleted and captured within section 4 – Interpreting and Reviewing Settlement Invoices.</p>

Market Manual Section	Type of Change	Description
References	Modified	This section contains a list of <i>market manuals</i> and other <i>IESO</i> documents that are referenced in this <i>market manual</i> .

Market Manual 5.10: Settlement Disagreements

This is an existing *market manual* that has been updated for MRP.

Note:

1. This *market manual* has been adapted to align with the new MRP document format. Changes to align with that format will not be explicitly identified in this table.

Summary of Changes to Market Manual 5.10: September 2023

Market Manual Section	Type of Change	Description
1 Introduction	Modified	<p>This section includes the following subsections:</p> <ul style="list-style-type: none"> • 1.1: Purpose • 1.2: Scope • 1.3: Overview • 1.4: Contact Information <p>Section 1.3 has been updated for MRP to include:</p> <ul style="list-style-type: none"> • <i>day-ahead market, and</i> • <i>virtual transactions</i>
2 Validation of Settlement Statements	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.6.1, 1.6.2 and 1.6.3.</p> <p>This sections describes the responsibilities of the <i>market participant</i> and the <i>IESO</i> in validating <i>settlement statements</i> and includes the following subsections:</p> <ul style="list-style-type: none"> • 2.1: Market Participant Validation of Settlement Statements • 2.2: IESO Validation of Settlement Statements • 2.3: Metering Corrections

Market Manual Section	Type of Change	Description
3 Submitting a Notice of Disagreement	Modified	<p>The content in this section was previously subsection 1.7.</p> <p>This section provides <i>market participants</i> with the information required to submit a <i>notice of disagreement</i> to the <i>IESO</i> and includes the following subsection:</p> <ul style="list-style-type: none"> • 3.1: Data Requirements for Submission of a Notice of Disagreement <p>Subsection 3.1 has been updated for MRP as follows:</p> <ul style="list-style-type: none"> • replaced references to retired <i>settlement amounts</i>; and • deleted Table 1-1: Data Requirements for Notice of Disagreement Submission and replaced with high-level bulleted list of supporting material.
4 Resolving a Notice of Disagreement	Relocated	<p>No substantive changes as a result of MRP.</p> <p>The content in this section was previously subsection 1.8.</p> <p>This section describes the process by which the <i>IESO</i> will resolve a <i>notice of disagreement</i> and includes the following subsections:</p> <ul style="list-style-type: none"> • 4.1: IESO Validation of Notice of Disagreement • 4.2: IESO Request for Additional Information • 4.3: IESO Resolution of Notice of Disagreement
Appendix A Forms	Modified	<p>This section contains a list of forms that are used in this <i>market manual</i>.</p> <p>Appendix A has been updated for MRP as follows:</p> <ul style="list-style-type: none"> • removed form 'Administrative Pricing Event Correction' which is no longer required under MRP.
Appendix B Online IESO Notice of Disagreement Form	Deleted	<p>Appendix B has been deleted as this information can be found in the "Introduction to the IESO Settlement Process" training guide available on the <i>IESO</i> Marketplace Training webpage.</p>
References	Modified	<p>This section contains a list of <i>market manuals</i> and other <i>IESO</i> documents that are referenced in this <i>market manual</i>.</p>