

# 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. New Chapter 9 also includes new section 5 – Market Power Mitigation – Settlements 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 market design under the Market Renewal Program. 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"> <li>• Section 10.3.1 - deleted 'subject to section 10.3.2';</li> <li>• 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.</li> </ul> |
| 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"> <li>• Section 1.1A.1.4 - deleted 'subject to section 1.1A.1.5';</li> <li>• 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></li> </ul>  |

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|-----------|------------|--|----------------|--|
|           |            |  |                | 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"> <li>• 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</i> hydroelectric <i>generation resource</i>” and replace with “start indication values not exceeding the number of <i>generation units</i> associated with the <i>resource</i>”;</li> <li>• Section 2.2.6A.4: <i>shared daily energy limits</i> – replace with the defined term “<i>forebay</i>”;</li> <li>• 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>”.</li> </ul> |
| 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"> <li>• Deleted all instances of “intentionally left blank – section deleted” for clean-up;</li> <li>• renumbered section/subsections and updated cross-references accordingly;</li> <li>• replaced acronym “<i>RWM</i>” with “<i>registered wholesale meter</i>”;</li> </ul> <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"> <li>• 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>;</li> <li>• deleted “regulations” – defined term “<i>applicable law</i>” includes “regulations”, and is thus redundant;</li> <li>• New section 2.1.2 – moved provision from existing MR Ch. 9, s. 3.1.7 which specifies the</li> </ul>  |

| 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"> <li>• 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>;</li> <li>• Replaced “each hour” with the defined term “<i>settlement hour</i>”;</li> <li>• 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>”;</li> <li>• 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;</li> <li>• 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>”;</li> </ul> <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"> <li>• Inserted “Physical” in title heading;</li> <li>• 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>;</li> <li>• Section 2.2.1.1 – added “is either” and “or a specified <i>intertie metering point</i>”.</li> <li>• 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>”.</li> </ul> <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"> <li>• Inserted "Physical" in title heading;</li> <li>• Replaced "hour" with defined term "<i>settlement hour</i>" throughout;</li> <li>• Section 2.3.1.1a – added clarity by adding "is a specified <i>delivery point</i> associated with" a <i>registered wholesale meter</i>;</li> <li>• 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>;</li> </ul> <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"> <li>• replaced "<i>dispatch day</i>" with "<i>trading day</i>" throughout;</li> <li>• 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;</li> <li>• Section 2.4.1.2 – deleted unnecessary/redundant wording "on the same schedule and" and "for that <i>dispatch day</i>";</li> <li>• 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>";</li> <li>• 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>".</li> </ul> |
| 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"> <li>• Replaced "hour" with the defined term "<i>settlement hour</i>" throughout;</li> <li>• 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;</li> </ul>  |

| Chapter   | Section | Topic   | Type of Change | Description  |
|-----------|---------|---|----------------|--|
|           |         |   |                | <ul style="list-style-type: none"> <li>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”;</li> </ul> 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"> <li>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>);</li> <li>Section 4.11.9 – consequential clean-up/deletion with deletion of current section 4.11.7.</li> </ul>  |

| 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"> <li>• Replaced "<i>market commencement date</i>" with "MRP commencement date" throughout;</li> <li>• 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 for energy</i> for that hour" with "the <math>DAM\_PEC_h</math> and <i>day-ahead market locational marginal price of energy</i>" for each <i>TR zone</i> for "each <i>settlement hour</i>";</li> <li>• 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>";</li> </ul> <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"> <li>• Section 3.18.1.1 - replaced "net congestion rents" with "amount";</li> </ul> <p>Amended cross-references throughout.</p>  |
| Chapter 8 | 3.19    | Settlement                                       | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>• Section 3.19.2 – added detail on the funding of debits to the <i>TR clearing account</i>;</li> </ul> <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"> <li>As a matter of clean-up, deleted all instances of "intentionally left blank – section deleted";</li> <li>Renumbered section/subsections and updated cross-references accordingly;</li> <li>Replaced acronym "RWM" with "registered wholesale meter";</li> <li>Revised <i>market rules</i> section numbering convention – new convention will be uniform throughout the <i>market rules</i> and <i>market manuals</i>;</li> <li>Deleted the acronym "(TRs)".</li> </ul> |
| 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"> <li>Minor, stylistic wording changes. Deleted "without limitations", "and any regulations enacted thereunder, as amended from time to time" – language is unnecessary;</li> </ul>   |
| Chapter 9 | 2.1        | Metering and Metering Responsibilities                   | Modified       | Modified the following: <ul style="list-style-type: none"> <li>Minor, stylistic wording changes;</li> <li>Section 2.1.4: replaced "registered facility" with "resource";</li> <li>Section 2.15: replaced "operating agreements" with the defined term "interconnection agreements";</li> <li>Section 2.1.5.1: replaced "interchanges" with the defined term "interconnections";</li> <li>Section 2.1.5.3 – replaced cross reference to "section 3.1.9" with "section 9 of Appendix 9.2".</li> </ul>  |

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|-----------|---------|--|----------------|--|
| Chapter 9 | 2.2     | Station Service                                  | Modified       | Modified the following: <ul style="list-style-type: none"> <li>• Minor, stylistic wording changes;</li> <li>• Section 2.2.12.1 – replaced cross reference to “section 3.1.9” with “section 9 of Appendix 9.2”;</li> <li>• Section 2.2.15 and 2.2.16: replaced “<i>registered facility</i>” with “<i>facility</i>”.</li> </ul>  |
| Chapter 9 | 2.3     | Metering Data Recording and Collection Frequency | Modified       | Modified the following: <ul style="list-style-type: none"> <li>• Section 2.3.2 – clarified and simplified section by inserting “<i>metering data regarding demand or power (in MW) for</i>”;</li> <li>• Replaced “<i>self-scheduling generation facilities</i>” with “<i>non-dispatchable generation resources</i>”;</li> <li>• 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>.</li> </ul> |
| 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"> <li>• Minor, stylistic wording changes;</li> <li>• 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>.</li> </ul>  |
| 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"> <li>• Section 2.7.1: added reference to “the <i>day-ahead market</i> and/or the <i>real-time market</i>”;</li> <li>• Replaced “hours” with the defined term “<i>settlement hours</i>”;</li> </ul>   |

| Chapter   | Section            | Topic  | Type of Change | Description  |
|-----------|--------------------|--|----------------|--|
|           |                    |  |                | <ul style="list-style-type: none"> <li>Section 2.7.3 – replaced “interval quantities” with the defined term “<i>metering interval quantities</i>”;</li> <li>Section 2.6.3, 2.6.4 – replaced cross reference to section 3.1.6 to section 7 of Appendix 9.2.</li> </ul>  |
| Chapter 9 | 2.8                | Collection of Transmission Right (TR) Data           | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>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>”.</li> </ul> |
| Chapter 9 | 2.10               | Collection of Market Price and Other Settlement Data | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>Added “and its appendices” to the cross reference to Chapter 7 of the <i>market rules</i>;</li> <li>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.</li> </ul>                                   |
| Chapter 9 | 2.12               | Settlement Variables and Data                        | New            | <p>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>.</p>   |
| Chapter 9 | 2.13               | Recovery of Ineligible Settlement Amounts            | New            | <p>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>.</p>                                  |
| Chapter 9 | 2.14               | Market Remediation                                   |                | <p>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.</p>      |
| Chapter 9 | Existing Section 3 | Determination of Hourly                              | Deleted        | <p>Existing section 3 – “Determination of Hourly Settlement Amounts” has been deleted in its</p>   |

| 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:<br><br>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"> <li>• Hourly <i>physical transaction settlement amounts</i>;</li> <li>• Hourly <i>virtual transaction settlement amounts</i>;</li> <li>• Hourly <i>operating reserve settlement amounts</i>.</li> </ul>  |
| 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"> <li>○ <i>Dispatchable generation resources</i> not associated with a <i>pseudo-unit</i>;</li> <li>○ <i>Dispatchable loads</i>;</li> <li>○ <i>Non-hourly demand response price responsive loads</i>;</li> <li>○ <i>Physical hourly demand response price responsive loads</i>;</li> <li>○ <i>Boundary entity resources</i> – imports and exports;</li> <li>○ <i>Hydroelectric generation resources</i>; and</li> <li>○ <i>Dispatchable generation resource</i> associated with <i>pseudo-unit</i>.</li> </ul> |
| 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"> <li>○ <i>Dispatchable generation resources</i> not associated with a <i>pseudo-unit</i>;</li> <li>○ <i>Dispatchable loads</i>;</li> <li>○ <i>Boundary entity resources</i> – imports and exports; and</li> <li>○ <i>Dispatchable generation resource</i> associated with <i>pseudo-unit</i>.</li> </ul>  |
| 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 <sub>n</sub> ”), 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"> <li>• Section 4.1 – Transmission Tariff Changes – no change;</li> <li>• Section 4.2 – Ancillary Service Payments – deletion of “intentionally left blank – section deleted” and consequential renumbering;</li> <li>• Section 4.3 – IESO Administration Charge, Penalties, and Fines – renumbered from existing section 4.5 to new section 4.3; no other changes;</li> <li>• 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;</li> </ul> |

| Chapter   | Section | Topic  | Type of Change | Description  |
|-----------|---------|--|----------------|--|
|           |         |  |                | <ul style="list-style-type: none"> <li>Section 4.12 – Forecasting for Variable Generation – renumbered from existing section 4.7G to new section 4.12 – no other changes;</li> <li>Section 4.13 – Capacity Obligations – renumbered from existing section 4.7J to new section 4.13 – <b>Note:</b> 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.</li> </ul> <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"> <li>DAM GOG for non-<i>pseudo units</i>;</li> <li>DAM GOG – combustion turbine associated with a <i>pseudo-unit</i>;</li> <li>DAM GOG – steam turbine associated with a <i>pseudo-unit</i>.</li> </ul>  |
| 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"> <li>Non-<i>pseudo units</i>;</li> <li>Combustion turbine associated with a <i>pseudo-unit</i>;</li> <li>Steam turbine associated with a <i>pseudo-unit</i>.</li> </ul>   |

| 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"> <li>• <i>GOG-eligible resources</i> not associated with a <i>pseudo-unit</i>;</li> <li>• <i>GOG-eligible resources</i> associated with a <i>pseudo-unit</i> – combustion turbine;</li> <li>• <i>GOG-eligible resources</i> associated with a <i>pseudo-unit</i> – steam turbine.</li> </ul> |
| 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  |
|-----------|--------------------|-------------------------|----------------|--|
|           |                    |                         |                | <b>Note:</b> 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"> <li>• Generator Failure Charge – Guarantee Cost Component Uplift;</li> <li>• Real-Time Generator Offer Guarantee Uplift;</li> <li>• Day-Ahead Market Uplift;</li> <li>• Day-Ahead Market Reliability Scheduling Uplift;</li> <li>• Fuel Cost Compensation Uplift;</li> <li>• Mitigation Amount for Physical Withholding Uplift;</li> <li>• Mitigation Amount for Intertie Economic Withholding Uplift;</li> <li>• Real-Time Ramp-Down Settlement Amount Uplift;</li> <li>• Additional Non-Hourly Uplifts.</li> </ul>   |
| 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"> <li>• <i>Day-ahead market</i> make-whole payment <i>settlement amount</i>;</li> <li>• <i>Day-ahead market generator offer</i> guarantee <i>settlement amount</i>;</li> <li>• Real-time make-whole payment <i>settlement amount</i>;</li> <li>• Real-time <i>generator offer</i> guarantee <i>settlement amount</i>;</li> <li>• Ramp-down <i>settlement amount</i>.</li> </ul> <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"> <li>• Mitigation Amount for Physical Withholding;</li> <li>• Mitigation Amount for Intertie Economic Withholding;</li> </ul> |

| Chapter   | Section | Topic                                     | Type of Change | Description   |
|-----------|---------|---|----------------|---|
|           |         |   |                | <ul style="list-style-type: none"> <li>• Day-Ahead Market Reference Level Settlement Charge;</li> <li>• Real-Time Market Reference Level Settlement Charge.</li> </ul>  |
| Chapter 9 | 6       | Settlement Statements                     |                | <p><b>Note:</b> 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"> <li>• Italicized 'process' as part of the defined term '<i>settlement process</i>'.</li> <li>• Removed "facsimile" as a communications method.</li> </ul>  |
| 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"> <li>• Section 6.3.6 – replaced subsection numbering of a, b, c with section numbers and edited cross references accordingly;</li> <li>• 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;</li> <li>• 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>";</li> <li>• Section 6.3.27 - deleted "<i>energy market</i>" – additional language is unnecessary and simply references "<i>billing period</i>".</li> </ul> |
| Chapter 9 | 6.4     | Settlement Statement Process              | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>• Section 6.4.1 – streamlined cross-referencing;</li> <li>• Section 6.4.6 - replaced instances of "re-send" or "re-sent" to "re-issue" or "re-issued".</li> </ul>   |
| Chapter 9 | 6.5     | Preliminary Settlement Statement Coverage | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>• Section 6.5.1 - replaced "separate" <i>preliminary statement</i> with "individualized" <i>preliminary statement</i>;</li> </ul>   |

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

| Chapter   | Section    | Topic                                       | Type of Change | Description   |
|-----------|------------|---|----------------|---|
|           |            |   |                | <p>Ontario energy price" and replaced with "market prices";</p> <ul style="list-style-type: none"> <li>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>.</li> </ul>  |
| Chapter 9 | 6.9        | IESO Validation of Settlement Statements    | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>Section 6.9.1 – grammatical change: deleted "take one of the following steps";</li> <li>Section 6.9.2 – note: the effective date of RSS changes will be amended at a later time.</li> </ul>   |
| Chapter 9 | 6.10       | Dispute Resolution                          | No Changes     | <ul style="list-style-type: none"> <li>No changes, other than section reference style changes.</li> </ul>   |
| Chapter 9 | 6.11       | Responsibility of the IESO                  | Modified       | <ul style="list-style-type: none"> <li>Section 6.11.2 - inserted "<i>day-ahead market and</i>".</li> </ul>  |
| Chapter 9 | 6.12       | Settlement Invoices                         | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>Section 6.12.2.2 – minor wording change - inserted "is held";</li> <li>Section 6.12.5 - replaced instances of "re-send" or "re-sent" to "re-issue" or "re-issued".</li> </ul>   |
| Chapter 9 | 6.13       | Payment of Invoices                         | Modified       | <p>Section 6.13.3 – italicized the word "services" within the term "<i>transmission services charges</i>".</p>  |
| Chapter 9 | 6.14, 6.15 | Funds Transfer, Confirmation Notices        | No Change      | No substantive changes.   |
| Chapter 9 | 6.16       | Payment Default                             | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>Section 6.16.5.1 - inserted "<i>day-ahead market and</i>";</li> <li>Section 6.16.6.2 – replaced "intervals" with the defined term "<i>metering intervals</i>";</li> <li>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>.</li> </ul> |
| Chapter 9 | 6.17       | Payment Errors, Adjustments, and Interest   | No Change      | No substantive changes.   |
| Chapter 9 | 6.18       | Settlement Financial Balance/Maximum Amount | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>Section 6.18.1.1 – replaced "<i>hourly market</i>" with "<i>day-ahead market and real-time market</i>";</li> <li>Section 6.18.1.2 – inserted "daily and";</li> </ul>  |

| Chapter                  | Section | Topic                     | Type of Change | Description   |
|--------------------------|---------|---------------------------|----------------|---|
|                          |         | Payable by IESO           |                | <ul style="list-style-type: none"> <li>• Section 6.18.2 – inserted “day-ahead market”;</li> <li>• Section 6.18.3 – inserted “<i>day-ahead market</i> and <i>real-time market</i>” before “<i>settlement amounts</i>”.</li> </ul>  |
| 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"> <li>• Deleted all instances of “intentionally left blank – section deleted” for clean-up;</li> <li>• renumbered section/subsections and updated cross-references accordingly;</li> <li>• replaced acronym “<i>RWM</i>” with “<i>registered wholesale meter</i>”;</li> <li>• revised <i>market rules</i> section numbering convention;</li> <li>• 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.</li> </ul>   |
| 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"> <li>• Registration and General Variables, Data and Information;</li> <li>• Day-Ahead Market Variables, Data and Information;</li> <li>• Pre-Dispatch Variables, Data and Information;</li> <li>• Real-Time Market Variables, Data and Information;</li> <li>• Pre-Dispatch Variables, Data and Information;</li> <li>• Physical Bilateral Contract Variables, Data and Information;</li> <li>• Transmission Rights Variables, Data and Information;</li> <li>• Allocated Quantities;</li> <li>• Market Power Mitigation;</li> </ul> <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<br>–<br>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"> <li>• Day-Ahead Market – Energy;</li> <li>• Day-Ahead Market – Operating Reserve;</li> <li>• Pre-Dispatch – Energy;</li> <li>• Pre-Dispatch – Operating Reserve;</li> <li>• Real-Time Market – Energy;</li> <li>• Real-Time Market – Operating Reserve.</li> </ul>   |
| Chapter 9<br>–<br>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"> <li>• Constrained Area Conditions – determination of whether and which conduct tests will apply;</li> <li>• Applicable Resources – determination of which resources are subject to any applicable conduct tests;</li> <li>• Conduct Test – application of applicable conduct tests to applicable resources identified.</li> </ul> |
| 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’.<br><br>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"> <li>• Section 10.3 – as a matter of clean-up, deleted several instances of “[intentionally left blank]”;</li> <li>• Section 10.3.2 – for consistency, replaced “section deleted – intentionally left blank” with “intentionally left blank – section deleted”.</li> </ul> <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”.<br><br>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"> <li>• Updated section references;</li> </ul> <p>This change was made in response to internal feedback.</p> <ul style="list-style-type: none"> <li>• <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention.</li> </ul> <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> ”.<br><br>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"> <li>• Minor grammatical, typographical changes;</li> <li>• <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention;</li> <li>• clean up of several instances of “[intentionally left blank]”.</li> </ul>  |

| 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/<br>New | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <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"> <li>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.</li> </ul> <p>This change was made in response to internal feedback.</p>   |
| Chapter 9 | 3.5          | Real-Time Make-Whole Payment        | Modified,<br>New | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>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>”;</li> <li>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>;</li> <li>With the insertion of new sections 3.5.4.7 and 3.5.4.8 – revised cross referencing within this section;</li> <li>Section 3.5.6 – revised section “b.” of the RT_MWP equation;</li> <li>Section 3.5.6.1 – revised the RT_ELC equation;</li> <li>Section 3.5.6.1a. – revised the RT_FROP_LC equation for <i>dispatchable generation</i></li> </ul> |

| 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"> <li>• Section 3.5.7 – revised the equations in “a. – RT_ELC” and “b. – RT_OLC” for <i>dispatchable loads</i>;</li> <li>• Section 3.5.8.1 – revised the equation in “b.” – RT_OLC for export transactions;</li> <li>• Section 3.5.8.2 – revised the equation in “b.” – RT_OLC for export transactions;</li> <li>• Section 3.5.8.3 – revised the equation in “a.” – RT_OLC for import transactions;</li> <li>• 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>;</li> <li>• 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>.</li> </ul> <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"> <li>• 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;</li> <li>• Section 4.5.2(b.)(iii.)(a.) – deleted “either” and “or <i>extended pre-dispatch operational commitment</i>”;</li> <li>• Section 4.5.9(c.)(b.)(i) – added a notwithstanding clause and further details on the RT_GOG_SU equation;</li> <li>• Section 4.5.18(b.)(i) and (ii) – inserted a notwithstanding clause and further details on the RT-GOG_COMP4 equation;</li> <li>• Section 4.5.24 – revised the equation for RT_GOG Component 3 – replaced “(1-ST_Portion)” with “ST_Portion”.</li> </ul> <p>These changes were made in response to internal feedback.</p>   |

| Chapter   | Section | Topic                                  | Type of Change | Description  |
|-----------|---------|--|----------------|--|
|           |         |  |                | <ul style="list-style-type: none"> <li>Section 4.5.5 and 4.5.14 – amended the sections to correct the description of variant #3.</li> </ul> <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"> <li>Section 4.7.1.3 – changed 'M' to 'M0', updated CRLR equation accordingly;</li> </ul> <p>This change was made in response to written feedback from OPG (comment id 12 and 13).</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <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"> <li>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";</li> <li>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.</li> </ul> <p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> <li>Section 5.1.2.3(iii) – unitalicized "broad constrained area" which is not a Chapter 11 defined term.</li> </ul> |

| 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"> <li>• Section 5.2.1 – inserted “or <i>dispatchable electricity storage resource</i>”;</li> <li>• 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>;</li> <li>• 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;</li> <li>• 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.</li> </ul> <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"> <li>• Section 5.3.1 – inserted “or <i>dispatchable electricity storage resource</i>”;</li> </ul>  |

| Chapter   | Section | Topic                                       | Type of Change | Description  |
|-----------|---------|---|----------------|--|
|           |         |   |                | <ul style="list-style-type: none"> <li>• 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>;</li> <li>• 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;</li> <li>• 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.</li> </ul> <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"> <li>• 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.);</li> <li>• 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>”;</li> <li>• Section 5.4.1.2(c.) and (d.) – inserted subsection numbering “(c.)” and “(d.)”;</li> <li>• Section 5.4.1.2(d.)(ii) – replaced “in accordance with the applicable <i>market manual</i>” with “by subtracting the <i>market</i></li> </ul>   |

| 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"> <li>• Section 5.5.1.1(b.) and (c.) – inserted subsection numbering "(b.)" – DAM_EWUI and "(c.)" – RT_EWUI;</li> <li>• 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>";</li> <li>• Section 5.5.1.3 (b.) and (c.) – inserted subsection numbering "(b.)" – DAM_EWUI and "(c.)" – RT_EWUI;</li> <li>• 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>".</li> </ul> <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"> <li>• 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;</li> <li>• Section 6.5.4.1 – replaced "<i>energy injected or withdrawn</i>" to "<i>energy scheduled to be injected or withdrawn</i>";</li> <li>• 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".</li> </ul>   |

| Chapter                  | Section    | Topic  | Type of Change | Description   |
|--------------------------|------------|--|----------------|---|
|                          |            |  |                | <p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> <li>Section 6.16.5.1(d.) – replaced cross reference from s. 3.19.6 to 3.19.7.</li> </ul> <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"> <li>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.</li> </ul> <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"> <li>Section 9.1.3 – Updated equation – replaced “EMFC_DAM_SU” with “EMFC_DAM_BE_SU”;</li> <li>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”.</li> </ul> <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"> <li>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”.</li> </ul> |
| Chapter 9 – Appendix 9.4 | 3          | Real-Time Mitigation                             | Modified       | <p>Modified the following:</p> <ul style="list-style-type: none"> <li>Section 3.3.4 and 3.3.4.1 – unitalicized “broad constrained area” which is not a Chapter 11 defined term;</li> </ul>  |

| 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"> <li>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>;</li> <li>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.”</li> </ul> <p>These changes were made in response to internal feedback.</p> |
| Chapter 11 |         | Defined Terms | Modified       | <ul style="list-style-type: none"> <li>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,”:</li> </ul> <p>means the price of <i>energy</i> in Ontario, <b>prior to any adjustments made as a result of the load forecast deviation charge</b>, 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<br/>2.2.6A.5 one or more <i>time lags</i> applicable to the <i>resource’s forebay</i>.</p> <p>With:<br/>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"> <li>For Chapter 9 formulations, replaced instances of “MAX” and “MIN” to “Max” and “Min” for consistency throughout.</li> </ul> <p>This change was made in response to written feedback from Vlad Urukov (comment id 42).</p> <ul style="list-style-type: none"> <li>Updated <i>market rule</i> section numbering to the new convention.</li> </ul> <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"> <li>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”;</li> <li>Inserted “at a given instant or averaged over” for clarity.</li> </ul> <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 <b>relevant</b> <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"> <li>• 2.12.1.1 provide the variables and data described in Appendix 9.2 directly to the <i>settlement process</i>; and</li> <li>• 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.</li> <li>• Italicized “<i>settlement process</i>” which is a defined term in Chapter 11 of the <i>market rules</i>.</li> </ul> <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"> <li>• 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”;</li> <li>• Section 2.14.2(c.) – editorial change: replaced “will be calculated” with “calculate the”;</li> <li>• Deleted “the applicable” and replaced with “a”; deleted “is deemed to be” and replaced with “of”.</li> </ul> <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"> <li>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>.</li> </ul> <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"> <li>Corrected grammatical error - inserted “is” in subsections (a) and (b).</li> </ul> <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"> <li>inserted “price” after “<i>offer</i>” and “<i>bid</i>”.</li> </ul> <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"> <li>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>;</li> <li>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).</li> </ul> |

| 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"> <li>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”;</li> <li>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).</li> </ul> <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"> <li>Section 3.4.13.2(ii) – corrected error by replacing “<i>forbidden region</i> upper limit” with “<i>forbidden region</i> lower limit”;</li> <li>Section 3.4.13.2 (ii) and (iii) – inserted missing sub/superscripts for “<i>FR_UL</i>”.</li> </ul> <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      | Section 4.5.25(b.) - For consistency within section 4.5.25, inserted " <i>delivery point</i> " after "combustion turbine".<br><br>This change was made in response to internal feedback.  |
| 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      | 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> ".<br><br>This change was made in response to internal feedback.  |
| Chapter 9 | 4.9.2.2                    | Transmission Rights Clearing Account Disbursements   | Editorial      | Replaced "authorised" with "authorized".<br><br>This change was made in response to internal feedback.  |
| Chapter 9 | 4.10.6                     | Non-Pseudo Unit – Guarantee Cost Component   | Editorial      | Modified the following: <ul style="list-style-type: none"> <li>4.10.6(c.) - corrected typographical error by replacing "<i>minimum generation block-run time</i>" with "<i>minimum generation block run-time</i>";</li> <li>4.10.6(d.) – moved "for <i>market participant</i> 'k' at <i>delivery point</i> 'm' " to the end of the section.</li> </ul><br>These changes were made in response to internal feedback. |
| Chapter 9 | 4.14.1                     | Generator Failure Charge – Guarantee Cost Component Uplift                                 | Editorial      | Corrected typographical error – replaced "generator cost component" with "guarantee cost component".<br><br>This change was made in response to internal feedback.  |
| Chapter 9 | 4.14.11                    | Real-Time Ramp-Down Settlement Amount Uplift   | Editorial      | Modified the following: <ul style="list-style-type: none"> <li>Subsection (a.) - Inserted "real-time" before "ramp-down <i>settlement amount</i>";</li> <li>Removed italics from 'm'.</li> </ul>  |

| 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"> <li>• Section 5.2.1 and 5.3.1 – inserted “<i>dispatchable</i>” before “<i>generation resource</i>”;</li> <li>• Added “that is injecting” following “<i>dispatchable electricity storage resource</i>”.</li> </ul> <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"> <li>• 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;</li> <li>• Section 5.5.1.1(a)(ii) – corrected error by replacing “<i>intertie metering point</i> ‘m’ ” with “<i>intertie metering point</i> ‘i’ ”;</li> <li>• Replaced “in MWs” with “in MWhs”;</li> <li>• 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”;</li> <li>• Section 5.5.1.3 (ii) – inserted “<i>metering interval</i> ‘t’ in”.</li> </ul> <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"> <li>Corrected typographical error by replacing "<i>transmission service charge</i>" with "<i>transmission services charge</i>";</li> <li>Corrected italics for term "<i>transmission services charge</i>".</li> </ul> <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"> <li>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.</li> </ul> <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). |

## 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<br>Submission Requirements  | Modification   | Reinstated the erroneously deleted content regarding <i>Ontario Energy Board</i> license requirements.   |
| 3.3<br>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<br>Quick Start Flag   | Modification   | Updated content to reflect new defined terms for <i>GOG-eligible resources</i> .   |
| 3.3.2<br>Dispatchable Hydroelectric Generation Resource Registration Requirements | Editorial      | Updated paragraph to be more concise.  |
| 3.3.2.2<br>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<br>Hourly Must Run Flag   | Editorial      | Updated paragraph to be more concise.  |

| Market Manual Section                                      | Type of Change | Description  |
|--|----------------|--|
| 3.3.2.4<br>Cascade Group and Forebay                       | Modification   | Updated header from "Shared Daily EnergyLimit" to "Cascade Group and Forebay".<br><br>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> . |
| 3.3.2.5<br>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<br>Elapsed Time to Dispatch                        | Modification   | Updated content to reflect new defined terms for <i>GOG-eligible resources</i> .   |
| 3.3.5<br>Requirements for Generator Offer Guarantee Status | Modification   | Updated content to reflect new defined terms for <i>GOG-eligible resources</i> .<br>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> .   |
| 3.6.1<br>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   | Modified the following: <ul style="list-style-type: none"> <li>• Updated section references;</li> <li>• Updated market rule referencing formatting to the new market rule reference convention.</li> </ul> <p>These changes were made in response to internal feedback.</p> <ul style="list-style-type: none"> <li>• Made editorial changes related to spaces, acronym usage etc.</li> </ul> |

| Market Manual Section | Type of Change | Description   |
|-----------------------|----------------|---|
|                       |                | <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</i> hydroelectric <i>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<br>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<br>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> .<br><br>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<br>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> .<br><br>Also, updated content to indicate that pre-auction reports will contain information pertaining to the <i>day-ahead market</i> .<br><br>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<br>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> .<br><br><i>Day-ahead market external congestion rents</i> is now a defined term. |
| 2.2.2<br>Determining Financial Upper Limit                 | Modification   | Modified references to congestion rents to say <i>day-ahead market external congestion rents</i> .  |
| 2.3<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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"> <li>• DAM: Day-Ahead Market</li> <li>• LMP: Locational Marginal Price</li> <li>• TTC: Total Transfer Capability</li> </ul> <p>Removed Following acronyms:</p> <ul style="list-style-type: none"> <li>• EMP: Energy Market Price</li> <li>• ICP: Intertie Congestion Price</li> </ul>   |

### 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"> <li>• Minor grammatical, typographical changes;</li> <li>• <i>market rule</i> referencing formatting changes to the new <i>market rule</i> reference convention.</li> </ul>   |
| 1.2<br>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<br>Determining Maximum TR Offered for Long- | 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  |
|---|----------------|--|
| term Auctions                                 |                |  |
| 3<br>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<br>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".<br><br>This change was made in response to feedback from OPG (comment id 62). |
| Appendix G<br>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".<br><br>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> ".<br><br>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<br>Introduction  | New            | This section contains:<br><br>1.1: Purpose of the <i>market manual</i> ;<br>1.2: Scope of the <i>market manual</i> ;<br>1.3: Overview of the <i>market manual</i> ; and<br>1.4: Contact information for the <i>IESO</i> .   |
| 2<br>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<br>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<br>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> .<br>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<br>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.<br><br>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<br>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<br>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<br>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<br>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<br>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<br>Settlement of Physical Bilateral Contract Data                       | New<br>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<br>Defaults and Suspensions   | New                 | This section covers the impact of defaults and suspensions on <i>physical bilateral contracts</i> .  |
| Appendix A<br>Forms   | New                 | This section contains a list of forms that are used in this <i>market manual</i> .   |
| List of<br>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"> <li>• Updated for MRP</li> </ul>  |
| 1.2 Scope  | Modification   | <ul style="list-style-type: none"> <li>• Updated for MRP</li> </ul>  |
| 1.6.1 Generation Station Service Rebate  | Modification   | <ul style="list-style-type: none"> <li>• Moved to section 2.27 – Station Service Rebate</li> <li>• Moved to section 2.28 – Station Service Rebate</li> </ul>   |
| 1.6.1A Electricity Storage Station Service Rebate  |                | <ul style="list-style-type: none"> <li>• 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></li> </ul>   |
| 1.6.5 Administrative Pricing Event   | Delete         | <ul style="list-style-type: none"> <li>• Retired under MRP</li> <li>• Request for additional compensation not required with the introduction of the real-time make-whole payment</li> </ul>  |
| 1.6.6 Transmission Service Charges for Embedded Generation   | Relocate       | <ul style="list-style-type: none"> <li>• Moved to MM 5.6</li> </ul>  |
| 1.6.7 Regulated Price Plan, Regulated Generation   | Relocate       | <ul style="list-style-type: none"> <li>• Moved to MM 5.6</li> </ul>  |
| 1.6.8 Limiting CMSC Payments for Exporters and Dispatchable Loads and Electricity Storage Participants | Delete         | <ul style="list-style-type: none"> <li>• Retired under MRP with the introduction of a single schedule market and the real-time make-whole payment</li> <li>• Replacement bids for <i>dispatchable load</i>, <i>electricity storage resources</i>, and exports have been retained and included in the calculation of make-</li> </ul> |

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

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

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

| Current Market Manual Section                                       | Type of Change | Description   |
|---|----------------|---|
| Expired Settlement Calculations Kept for Purposes of Re-Calculation |                |   |
| Appendix E<br>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<br>Introduction  | New            | This section contains:<br>1.1: Purpose of the <i>market manual</i> ;<br>1.2: Scope of the <i>market manual</i> ;<br>1.3: Overview of the <i>market manual</i> ; and<br>1.4: Contact information for the <i>IESO</i> .  |
| 2<br>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"> <li>• <i>day-ahead market settlement</i> charges, credits and uplifts and the associated <i>charge types</i>; and</li> <li>• <i>real-time market settlement</i> charges, credits and uplifts and the associated <i>charge types</i>.</li> </ul>   |
| 2.1<br>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<br>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<br>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<br>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<br>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 DAM_UPL 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<br>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"> <li>• <i>GOG-eligible resources</i>, or</li> <li>• newly scheduled or incrementally scheduled import transactions for <i>boundary entity resources</i>.</li> </ul> <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<br>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<br>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<br>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<br>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<br>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<br>Real-Time<br>Generator Offer<br>Guarantee Uplift<br>(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> .<br>The RT_GOGU replaces the real-time generator cost guarantee (RT_GCG).  |
| 2.13<br>Generator Failure<br>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).<br><br>There are two components to the GFC: market price component (GFC_MPC) and guarantee cost component (GFC_GCC).   |
| 2.14<br>Generator Failure<br>Charge – Market<br>Price Component<br>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<br>Generator Failure<br>Charge –<br>Guarantee Cost<br>Component<br>(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<br>Real-Time Intertie<br>Failure Charge<br>(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<br>Real-Time Intertie<br>Failure Charge<br>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).<br><br>The <i>settlement amount</i> has been renamed from Intertie Failure Charge Rebate.  |
| 2.18<br>Real-Time Intertie<br>Offer Guarantee<br>(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<br>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<br>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<br>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<br>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<br>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<br>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<br>Fuel Cost Compensation Credit (FCC)                    | New            | <p>The <i>IESO</i> 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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>Capacity Obligations                    | New            | <p>To be provided following the finalization of the Capacity Auction Market Rule Amendment.</p>  |
| 3.5<br>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<br>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<br>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<br>Forms  | New            | This section contains a list of forms that are used in this <i>market manual</i> .   |
| Appendix B<br>Hydroelectric<br>Generation<br>Resources –<br>Determining a Start<br>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<br>Price Bias<br>Adjustment Factors<br>Calculation Method<br>for the Real-Time<br>Import and Export<br>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<br>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<br>Changes   | Modification   | This section has been updated to correct punctuation, document titles, and to clarify the rationale for document name change.<br><br>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<br>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.<br><br>This change was made in response to internal feedback.   |
| 1.2<br>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> .<br><br>This change was made in response to written feedback from OPG (comment id 77).  |
| 1.3<br>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> .<br><br>This change was made in response to internal feedback.  |
| 2.2.2.1<br>Load Forecast<br>Deviation Charge                          | Modification   | Replaced 'actual demand' with 'actual quantity of <i>energy</i> consumed in real-time'.<br><br>This change was made in response to internal feedback.  |
| 2.5<br>Day-Ahead<br>Market Uplift<br>(DAM_UPL)                        | Modification   | Replaced <i>day-ahead market uplift settlement amount</i> with acronym DAM_UPL in body of text.<br><br>This change was made in response to internal feedback.  |
| 2.6<br>Day-Ahead<br>Market Reliability<br>Scheduling Uplift<br>(DRSU) | Modification   | Replaced <i>day-ahead market reliability scheduling uplift settlement amount</i> with acronym DRSU in body of text.<br><br>This change was made in response to internal feedback.  |
| 2.11<br>Real-Time<br>Generator Offer<br>Guarantee<br>(RT_IOG)         | Modification   | Updated <i>market rule</i> reference from MR Ch.9 s.3.6 to MR Ch.9 s.4.5.<br><br>This change was made in response to internal feedback.  |
| 2.18<br>Real-Time Intertie<br>Offer Guarantee<br>(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> .'<br><br>This change was made in response to internal feedback. |
| 4.1<br>Reference Level<br>Settlement<br>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> .<br><br>Added additional clarity that the RLSC only applies to <i>energy</i> .   |

| Market Manual Section                                       | Type of Change | Description  |
|---|----------------|--|
| 4.4<br>Settlement<br>Mitigation of<br>Settlement<br>Amounts | Modification   | <p>This change was made in response to internal feedback.</p> <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<br>Market<br>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<br>IOG Offset<br>Process                         | Modification   | <p>Updated Table D-1:</p> <ul style="list-style-type: none"> <li>• deleted reference to (SQEI) as the column refers to both import transactions and export transactions</li> <li>• updated Potential_IOG for RT Import Transaction Res9 from \$4,000 to \$0</li> </ul> <p>Updated Table D-2:</p> <ul style="list-style-type: none"> <li>• deleted reference to (DAM_SQEI) as the column refers to both import and export transactions</li> <li>• 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</li> </ul> <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>   |