Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00486-R00 – Urgent Market Rule Amendment
Subject:	Settlements: Day-Ahead Market Balancing Credit and Real-Time Make-Whole Payment
Title:	Corrections to the Day-Ahead Market Balancing Credit and Real-Time Make-Whole Payment
Nature of Proposal:	☒ Alteration ☐ Deletion ☐ Addition
Chapter:	0.9 Renewed Market Rules
Appendix:	
Sections:	3.3, 3.5
Sub-sections proposed for amending:	3.3.5.1, 3.3.5.2, 3.5.4.8
Current Market Rules Baseline:	

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Submit for IESO Board Approval	April 25, 2025
2.0	Approved by the IESO Board	April 25, 2025

Approved Amendment Publication Date: April 25, 2025

Approved Amendment Effective Date: April 25, 2025

Part 3 - Explanation for Proposed Amendment

Provide a brief description that includes some or all of the following points:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules to correct two errors relating to the settlement of the Day-Ahead Market Balancing Credit and Real-Time Make-Whole Payment.

These market rule errors were identified during the Market Renewal Program's (MRP's) end-to-end testing phase, and require prompt correction in advance of MRP go-live in order to prevent incorrect settlement outcomes.

This rule amendment is considered to be urgent as it meets the following reason under section 34(1) of the *Electricity Act, 1998:* "to avoid, reduce the risk of or mitigate the effects of an unintended adverse effect of a market rule."

Background

Day-Ahead Market (DAM) Balancing Credit:

Market participants participating with a boundary entity resource or generator offer guarantee (GOG) eligible resource should receive the DAM Balancing Credit when they are dispatched below their day-ahead schedule by the IESO, in order to maintain the reliability of the IESO-controlled grid.

DAM Balancing Credits are applied in real-time for both energy and operating reserve, when the IESO curtails imports and exports, or de-commits GOG-eligible resources after it received a DAM schedule.

Real-Time Make-Whole Payment (RT MWP):

RT MWPs provide compensation when a resource deviates from its economic operating point in response to dispatch instructions or when the resource is scheduled uneconomically due to differences between the scheduling and pricing pass.

Resources that are eligible for RT MWPs may be able to recover lost cost and lost opportunity costs for energy and operating reserve.

Discussion

DAM Balancing Credit:

MR Ch.0.9 s.3.3 specifies the calculation and eligibility for the DAM Balancing Credit. Sections 3.3.5.1 and 3.3.5.2 incorrectly make reference to the "real-time market locational marginal price" instead of a correct reference to the "day-ahead market locational marginal price." Amending these sections to refer to the "day-ahead market locational marginal" price will result in the correct calculation of the DAM Balancing Credit, consistent with the intended design and correct implementation in the IESO's settlement tools.

RT MWP:

MR Ch.0.9 s.3.5 specifies the calculation and eligibility for the RT MWP. Section 3.5.4.8 incorrectly refers to an amount "less than" when it should prescribe an amount that is "greater than" in this provision referring to threshold eligibility.

Applying this market rule error as written would lead to incorrect outcomes whereby market participants become eligible for operating reserve opportunity costs when they shouldn't be, and conversely ineligible for operating reserve opportunity costs when they should be. Amending this section to "greater than" will result in the correct calculation of the RT MWP, consistent with the intended design and correct implementation in the IESO's settlement tools.

Part 4 - Proposed Amendment

Chapter 0.9 Renewed Market Rules

3.3 Day-Ahead Market Balancing Credit

3.3.1 The *day-ahead market* balancing credit s*ettlement amount* for *market participant* 'k' in *settlement hour* 'h' ("DAM_$BC_{k,h}$") shall be calculated and disbursed to the *market participants* of *GOG-eligible resources* and *energy traders* participating with *boundary entity resources* in accordance with the eligibility and equations set out in this section 3.3 and the operating profit function described in section 10 of Appendix 9.2.

3.3.5 Subject to section 3.3.5.1 and 3.3.5.2 and at an *intertie metering point* 'i' associated with an *energy trader* participating with a *boundary entity resource*, the *day-ahead market* balancing credit *settlement amount* shall be calculated as follows:

$$DAM\_BC^{i}_{k,h} = DAM\_BCE^{i}_{k,h} + DAM\_BCOR^{i}_{k,h}$$

Where:

a. for an import transaction, $DAM\_BCE^{i}_{k,h}$ is the *energy* component of the *day-ahead market* balancing credit s*ettlement amount* and calculated as follows:

$$DAM\_BCE^{i}_{k,h} = MAX\{0, \sum^{T} OP(RT\_LMP^{i,t}_{h}, Min(RT\_LOC\_EOP^{i,t}_{k,h}, DAM\_QSI^{i}_{k,h}), BE^{i,t}_{k,h}) - OP(RT\_LMP^{i,t}_{h}, SQEI^{i,t}_{k,h}, BE^{i,t}_{k,h})\} /12$$

b. for an export transaction, $DAM\_BCE^{i}_{k,h}$ is the *energy* component of the *day-ahead market* balancing credit s*ettlement amount* and calculated as follows:

$$DAM\_BCE^{i}_{k,h} = -1 \times MIN\{0, \sum^{T} OP(RT\_LMP^{i,t}_{h}, Min(RT\_LOC\_EOP^{i,t}_{k,h}, DAM\_QSW^{i}_{k,h}), BL^{i,t}_{k,h}) - OP(RT\_LMP^{i,t}_{h}, SQEW^{i,t}_{k,h}, BL^{i,t}_{k,h})\}/12$$

c. $DAM\_BCOR^{i}_{k,h}$ is the *operating reserve* component of the *day-ahead market* balancing credit s*ettlement amount* and calculated as follows:

$$DAM\_BCOR^{i}_{k,h} = \sum^{R} MAX\{0, \sum^{T} OP(RT\_PROR^{i,t}_{r,h,}, Min(RT\_OR\_LOC\_EOP^{i,t}_{r,k,h}, DAM\_QSOR^{i}_{r,k,h}), BOR^{i,t}_{r,k,h}) - OP(RT\_PROR^{i,t}_{r,h}, RT\_QSOR^{i,t}_{r,k,h}, BOR^{i,t}_{r,k,h})\}/12$$

3.3.5.1 Where the *offer* price for *energy* or *operating reserve*, as the case may be, being used to determine the appropriate *day-ahead market* balancing credit s*ettlement amount* is less than the applicable ~~*real-time market*~~*day-ahead market* *locational marginal price* for such *energy* or *operating reserve,* the *IESO* shall adjust, for the purposes of determining the *day-ahead market* balancing credit *settlement amount*, such *offer* price to be equal to the applicable ~~*real-time market*~~*day-ahead market* *locational marginal price* for such *energy* or *operating reserve*.

3.3.5.2 Where the *bid* price for *energy* being used to determine the appropriate *day-ahead market* balancing credit s*ettlement amount* is greater than the applicable ~~*real-time market*~~*day-ahead market* *locational marginal price* for such *energy*, the *IESO* shall adjust, for the purposes of determining the *day-ahead market* balancing credit *settlement amount*, such *bid* price to be equal to the applicable ~~*real-time market*~~*day-ahead market* *locational marginal price* for such *energy*.

Real-Time Make-Whole Payment - Ineligibilities

3.5.4 Notwithstanding this section 3.5, the following *resources* shall be ineligible for the following components of the real-time make-whole payment *settlement amount*:

3.5.4.1 The following *resources* shall be ineligible for ELC and ELOC:

a. *dispatchable loads* and *dispatchable electricity storage resources* that are registered to withdraw for any quantity of *energy* that they *bid* at the *maximum market clearing price* and which was scheduled in the *real-time market*;

b. combustion turbine *resources* or steam turbine *resources* that are registered as a *pseudo-unit* but not operating as a *pseudo-unit* for *metering intervals* in which they have a minimum constraint applied for combined cycle operation consistent with combustion turbine commitment;

c. hydroelectric *generation resources:*

i. for any *settlement hour* for which the hydroelectric *generation resource* receives an *hourly must run* binding constraint;

ii. that are registered to the same *forebay* as one or more other hydroelectric *generation resources,* for a *trading day,* except for any *metering intervals* for which it receives a *reliability* constraint*,* if the sum of the quantity of *energy* scheduled in the *real-time market* for all *settlement hours* of the *trading day* for all *resources* that are registered to the same *forebay* is less than or equal to the *minimum daily energy limit* of such *forebay;* or

iii. that are not registered to the same *forebay* as one or more other hydroelectric *generation resources,* for a *trading day,* except for any *metering intervals* for which it receives a *reliability* constraint*,* if the sum of the quantity of *energy* scheduled in the *real-time market* for all *settlement hours* of the *trading day* for such *resources* is less than or equal to its *minimum daily energy limit;*

3.5.4.2 *energy traders* participating with *boundary entity resources* shall be ineligible for ELC, ELOC, and OLOC for import transactions;

3.5.4.3 *energy traders* participating with *boundary entity resources* shall be ineligible for ELOC and OLOC for export transactions;

3.5.4.4 *dispatchable load resources* and *dispatchable electricity storage resources* that are registered to withdraw shall be ineligible for ELOC where the *price-quantity pairs* contained in its *energy bid* for a *settlement hour* are not the same as the *price-quantity pairs* contained in its *energy bid* for the immediately preceding and next *settlement hour* and such change results in the ramping of the *resource* described in the applicable *market manual;*

3.5.4.5 *resources* shall be ineligible for ELC when it is injecting or withdrawing energy below it's RT_LC_EOP;

3.5.4.6 *resources* shall be ineligible for ELOC when it is injecting or withdrawing energy above RT_LOC_EOP;

3.5.4.7 *resources* shall be ineligible for OLC when its *real-time schedule* for *operating reserve* is less than its RT_OR_LC_EOP;

3.5.4.8 *resources* shall be ineligible for OLOC when its *real-time schedule* for *operating reserve* is ~~less~~greater than its RT_OR_LOC_EOP;
