Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00453-R00
Subject:	Market Renewal Program: Prudential Security
Title:	Market Renewal Program: Prudential Security and Physical Transactions
Nature of Proposal:	☒ Alteration ☒ Deletion ☒ Addition
Chapter:	2
Appendix:	
Sections:	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8
Sub-sections proposed for amending:	5.1.1, 5.1.2 (deleted), 5.1.3 (new), 5.1.3.1 (new), 5.1.3.2 (new), 5.1.3.3 (new), 5.1.3.4 (new), 5.1.3.5 (new), 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2.7A (new), 5.2.8, 5.2.9, 5.2.10 (new), 5.3.1, 5.3.2, 5.3.3, 5.3.3A (new), 5.3.4, 5.3.4.1, 5.3.4.2, 5.3.4.3, 5.3.5, 5.3.6, 5.3.7 (deleted), 5.3.8, 5.3.8.1, 5.3.8.2, 5.3.8A, 5.3.8B, 5.3.9, 5.3.10A, 5.3.10A.1, 5.3.10A.2, 5.3.10C (new), 5.3.11, 5.3.11.2, 5.3.11.3, 5.3.11.4, 5.3.12, 5.4.1, 5.4.2, 5.5.1, 5.5.1.1a, 5.5.1.1b, 5.5.1.2a, 5.5.1.2b, 5.6.1, 5.6.2, 5.6.3, 5.6.4, 5.6.5, 5.6.7 (new), 5.7.1, 5.7.2, 5.7.2.1b, 5.7.2A (new), 5.7.3A, 5.7.3B, 5.7.5, 5.8.1, 5.8.1A, 5.8.2A (deleted), 5.8.3, 5.8.4, 5.8.5, 5.8.6, 5.8.6.1, 5.8.6.3 (new), 5.8.8

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	October 13, 2020
2.0	Draft for Stakeholder Review	December 4, 2020
3.0	Draft for Technical Panel Review	March 9, 2021

Approved Amendment Publication Date:

Approved Amendment Effective Date:

Part 3 - Explanation for Proposed Amendment

Provide a brief description of the following:

- 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 incorporate day-ahead physical transactions into the existing prudential support provisions of the market rules. A summary of the proposed changes include the following:

1. Specify which prudential market rule provisions are applicable to market participants based on their authorizations to participate in the IESO-administered markets;
2. Codify a minimum prudential support obligation for energy traders conducting physical transactions who have not transacted for at least three billing periods;
3. Amend the price basis used for determining a market participant's minimum trading limit and default protection amount;
4. Specify that market participants conducting both physical and virtual transactions will be ineligible for the no-margin call option; and
5. Specify that an energy trader shall not receive a credit rating reduction until the energy trader has transacted for at least three billing periods.

This proposal is based on input from various stakeholder engagement initiatives for the Market Renewal Program (MRP).

Further information on MRP can be found on the [IESO's Market Renewal webpage](#).

Background

MRP:
In its mission to enhance the efficiency of Ontario's electricity markets, the IESO initiated the MRP with the following three initiatives for the energy work stream:

- Replace the two-schedule market with a single schedule market (SSM) to address current misalignments between price and dispatch and to better reflect the true cost of dispatching resources.

- Introduce a day-ahead market (DAM) to provide greater operational certainty to the IESO and greater financial certainty to market participants, ensuring more efficient scheduling of resources to meet anticipated system needs.

- Reduce the cost of scheduling resources to meet demand as it changes from the day-ahead to real-time through the enhanced real-time unit commitment (ERUC) initiative.

This redesign will address inefficiencies in the current market, implement best practices that have emerged over the past decade, and prepare the IESO to more effectively manage future

change. In the end, MRP will deliver a more efficient, stable marketplace with competitive and transparent mechanisms that meet Ontario's electricity needs at the lowest cost possible.

Discussion

The following market rule amendments are proposed to section 5 of chapter 2:

Section 5.1 – Purpose:
- Title to section 5.1 – amend title to "Purpose and Application";

- Section 5.1.1:
  - o the preamble to the application of the prudential market rules are necessary to reflect the day-ahead market design for prudential security. Amend to include participation in the 'day-ahead market, as the case may be';

  - o replace "to protect the IESO and market participants from payment defaults" with "minimize the impact of payment defaults on" market participants;

  - o last sentence which specifies that market participants participating solely as a capacity market participant – move to new section 5.1.3 'application' below;

- Section 5.1.3 (new): Application – this section is intended to clarify to market participants which sections of the prudential market rules are applicable to them, depending on the market participant's authorization to conduct one or any combination of day-ahead market physical transactions, real-time market physical transactions, or day-ahead market virtual transactions.

Section 5.2 – Market Participant Obligations:
The following amendments are required to section 5.2:

- Section 5.2.1: expand the general obligation to initially and continually satisfy prudential requirements to not only physical transactions in the real-time market, but also for physical or virtual transactions in the day-ahead market;

- Section 5.2.2: specify that each market participant shall provide to the IESO and maintain prudential support based on their applicable participation in the IESO-administered markets – either physical transactions in the real-time and day-ahead market, and/or virtual transactions in the day-ahead market;

- Section 5.2.3: specify that market participants who are required to provide prudential support pursuant to section 5.3.9 for physical transactions, new section 5C.5.1 for virtual transactions (MR-00453-R01), and new section 5D.5.1 for market participants authorized to conduct both physical and virtual transactions (MR-00453-R02), must satisfy the prudential support requirements of section 5, 5C, 5D and Appendix 2.3 of Chapter 2;

- Section 5.2.4: clarify that each market participant must provide to the IESO, on an ongoing basis, such information as the IESO may reasonably require for purposes of determining a market participant's maximum net exposure for physical transactions and virtual transactions;

- Section 5.2.5: expand applicability of this general section on prudential support due to expire to section 5C.5 – 'Obligation to Provide Prudential Support for Virtual Transactions' (MR-00453-R01), and section 5D.5 – 'Obligation to Provide Prudential Support for Market Participants Authorized to Conduct Both Physical Transactions and Virtual Transactions' (MR-00453-R02);

- 5.2.6: specify that this provision related to credit rating or good payment history reductions is applicable to physical transactions only;

- 5.2.7A: specify that the IESO may exercise its rights to draw on prudential support should a market participant commit an event of default, irrespective of whether the prudential support was provided for the purpose of satisfying a prudential support obligation for physical transactions or prudential support obligation for virtual transactions;

- 5.2.8: minor grammatical edits, insertion of "applicable" when referring to prudential support obligations;

- 5.2.9: for this general section on margin call requirements, expand cross references to include 5C.2.2/5C.4 – margin call requirements for virtual transactions (MR-00453-R01), and 5D.3.2/5D.4 – consolidated margin call requirements (physical and virtual transactions);

- 5.2.10: specify that for the purpose of section 5 of the market rules for prudential support, that a retailer shall be deemed to be an energy trader. Accordingly, the prudential support obligation for a retailer will be calculated using the same method used for energy traders, which include minimum trading limits calculated in accordance with sections 5.3.4.2 or 5.3.4.3 as applicable, and default protection amounts calculated in accordance with section 5.3.8.2.

Section 5.3 – Calculation of Participant Trading Limit, Default Protection Amount and Maximum Net Exposure:

Section 5.3 will be applicable to market participants intending to conduct physical transactions in the day-ahead market or real-time market. The following amendments limit the application of these sections to only physical transactions:

- Title to section 5.3: add "for Physical Transactions";

- For ease of reading, add title "Maximum Net Exposure" prior to section 5.3.1;

- Sections 5.3.1, 5.3.2, 5.3.4: specify that these sections are applicable to physical transactions and to market participants intending to conduct physical transactions;

- Section 5.3.3: Specify that the self-assessed trading limit submitted by a market participant shall be applicable for the remainder of the current energy market billing period, in addition to future energy market billing periods, until a revised self-assessed trading limit is submitted to the IESO.

- Section 5.3.3A: specify that a market participant's revised self-assessed trading limit submitted in accordance with section 5.3.3 shall take effect once the IESO has confirmed receipt of any prudential support as required by the IESO;

- Section 5.3.4.1: specify that this section applies to physical transactions, and that the calculation excludes settlement amounts associated with virtual transactions;

- Section 5.3.4.2: specify that this section applies to physical transactions, and clarify that this section on minimum trading limit calculations is applicable to energy traders that have conducted physical transactions for energy for at least three previous billing periods;

- Section 5.3.4.3: specify that this section applies to physical transactions, and clarify that this section on minimum trading limit calculations is applicable to energy traders who have not conducted physical transactions for energy for at least three previous billing periods.

  Specify that the minimum trading limit will be equal to the greater of:

  (i)   25% of the market participant's estimate of its net settlement amount for the upcoming energy market billing period; and

  (ii) $25,000. This minimum trading limit amount of $25,000 is a new requirement for energy traders without three months of billing history. With a corresponding default protection amount of $25,000 calculated in accordance with section 5.3.8.2, an energy trader without three months of billing history would have a minimum prudential support obligation of $50,000;

- Sections 5.3.5, 5.3.6: specify that these sections are referencing trading limits for physical transactions; insert "for the remainder of the current or" to accommodate self-assessed trading limit changes in the current billing period;

- Section 5.3.7: delete the current requirement that prohibits market participants from requesting a change to their trading limit during a billing period.

Establishing Market Participant Default Protection Amount:
- Section 5.3.8: specify that this section on the calculation of default protection amounts is for physical transactions, and applicable to market participants intending to conduct physical transactions;

- Section 5.3.8.1: default protection amounts for market participants that are not energy traders:
  - In addition to specifying this section applies to physical transactions, specify that the calculation excludes settlement amounts associated with virtual transactions;

- Section 5.3.8.2: for clarity, replace market participant that is "not a metered market participant" with "that is not an energy trader".

Adjusting Trading Limit and Default Protection Amount for Physical Bilateral Contracts:
- Sections 5.3.8A, 5.3.8B – adjusting trading limit and default protection for physical bilateral contracts:

- Clarify that any adjustments to account for physical bilateral contracts for a minimum trading limit or default protection amount calculation are in respect of physical transactions.

Requirement to Provide Prudential Support:
- Section 5.3.9: clarify that this section is limited to maximum net exposure for physical transactions and prudential support obligations for physical transactions.

Price Bases Used for Determining Minimum Trading Limit and Default Protection Amount:
- Sections 5.3.10A, 5.3.10A.1: amend to specify the IESO shall, for a market participant other than an energy trader, that is associated with a generation resource, dispatchable load, or price responsive load, use as its price basis for calculating the minimum trading limit and default protection amount for physical transactions, the greater of the:
    - hourly locational marginal price in the day-ahead market, or
    - hourly average locational marginal price in the real-time market;

- Section 5.3.10A.2: amend to specify that IESO shall, for a market participant that is associated with a non-dispatchable load, use as its price basis for calculating the minimum trading limit and default protection amount, the greater of the:
    - Ontario zonal price in the day-ahead market, or
    - Hourly average Ontario zonal price in the real-time market;

- Section 5.3.10C: specify that the IESO may, in determining the price basis in accordance with section 5.3.10A, use any applicable prices published by the OEB, for example which may include prices for the global adjustment.

Reviewing and Modifying Trading Limits, Default Protection Amount and Maximum Net Exposure:
- Sections 5.3.11, 5.3.12: specify that these sections on the IESO review of trading limits, default protection amounts and maximum net exposure are for physical transactions; changed the IESO's obligation to review market participants' trading limits upon specified events into a discretionary right.

Section 5.4 – Monitoring of Actual Exposure and Trading Limit:
Amend section 5.4 to clarify its application to physical transactions only:

- Title to section 5.4 – add "for Physical Transactions";

- Sections 5.4.1, 5.4.2: clarify this section is in reference to the monitoring of actual exposure for physical transactions of a market participant that is not authorized to conduct virtual transactions. Market participants that are authorized to conduct both physical and virtual transactions fall under the consolidated monitoring provisions in new section 5D.3 (MR-00453-R02).

Section 5.5 – Calculation of Actual Exposure:
Amend section 5.5 to clarify its application to physical transactions:

- Title to section 5.5 – add "for Physical Transactions";

- Sections 5.5.1, 5.5.1.1, 5.5.1.2: clarify that this section is in reference to the calculation of actual exposure for physical transactions. Market participants that are authorized to conduct both physical and virtual transactions fall under the calculation of consolidated actual exposure provisions in new section 5D.2 (MR-00453-R02). The cross reference within section 5.5.1 to the applicable market manual serves as a link to the calculation details for actual exposure which are further specified in the prudential support market manual.

Section 5.6 – Margin call Requirements and the No Margin Call Option:
Amend section 5.6 to clarify its application to physical transactions only:

- Title to section 5.6 – add "for Physical Transactions";

- Section 5.6.1: clarify this section is in reference to margin call requirements for physical transactions of a market participant that is not authorized to conduct virtual transactions. Market participants that are authorized to conduct both physical and virtual transactions fall under the consolidated monitoring provisions in new section 5D.3 (MR-00453-R02);

- Sections 5.6.2, 5.6.3, 5.6.5: clarify these provisions are in reference to physical transactions;

- Section 5.6.4: amend to specify that the margin call option will be subject to new section 5.6.7 – market participants authorized to conduct both physical and virtual transactions will be ineligible to use the no margin call option.

- Section 5.6.5: clarify that the no margin call option calculation based on:
  - 70 days of market activity is for market participants that are not energy traders;
  - An estimate of 100% of net settlement amounts for the upcoming energy market billing period is for energy traders;

- Section 5.6.7 (new): specify that a market participant will be ineligible to use the no margin call option if it conducts both physical transactions and virtual transactions.

Section 5.7 – Obligation to Provide Prudential Support:
Amend section 5.7 to clarify its application to physical transactions:

- Title to section 5.7 – add "for Physical Transactions";

- Sections 5.7.1, 5.7.2, 5.7.3A, 5.7.3B, 5.7.5: clarify these sections are in reference to prudential support/prudential support obligations for physical transactions;

- Section 5.6.2.1b.: replace reference to the Financial Services Commission of Ontario (FSCO) with the Financial Services Regulatory Authority of Ontario (FSRA) – the FSRA has assumed responsibility for the regulation of those sectors previously regulated by FSCO and the Deposit Insurance Corporation of Ontario;

- Section 5.7.2A: require market participants who have provided a prudential guarantee from a rated non-affiliate or rated affiliate in accordance with sections 5.7.2.2 or 5.7.2.4 of the

market rules, to re-execute the new form of prudential guarantee between January 1, 2023 (subject to update, the earliest proxy date as to when the guarantee may be available for execution) and the go live date for MRP;

Section 5.8 – Reductions in Prudential Support Obligations:
Amend section 5.8 to clarify its application to physical transactions:

- Title to section 5.8 – add "for Physical Transactions";

- Sections 5.8.1, 5.8.1A, 5.8.2, 5.8.3, 5.8.4, 5.8.5, 5.8.6, 5.8.8: clarify these sections are in reference to prudential support obligations for physical transactions;

- Section 5.8.2A – delete this provision from 2002 which temporarily suspended the automatic one-notch reduction for distributors. This section is no longer required;

- Sections 5.8.6, 5.8.6.3: add to the list of restrictions applied to the provision of reductions in a market participant's prudential support obligation via credit rating or good payment history reductions - specify that an energy trader shall not receive a credit rating reduction in the calculation of its prudential support obligation for physical transactions until the energy trader has transacted for at least three previous billing periods.

Part 4 - Proposed Amendment

Chapter 2

5.   Prudential Requirements

5.1   Purpose and Application

5.1.1   ~~This S~~sections 5, 5B, 5C and 5D set~~s~~ forth the nature and amount of *prudential support* that must be provided by *market participants* as a condition of participation in the *real-time market*~~s~~ or the *day-ahead market*, as the case may be, or of causing or permitting electricity to be conveyed into, through or out of the *IESO-controlled grid,* and the manner in which *market participants* must provide and maintain such *prudential support* on an on-going basis in order to ~~protect the *IESO* and~~ minimize the impact of payment defaults on *market participants* ~~from payment defaults~~. ~~*Market participants* participating in the *IESO-administered markets* solely as a *capacity market participant* or *capacity auction participant* with a *capacity obligation* shall be subject only to the *capacity prudential support* requirements in section 5B.~~

5.1.2   [Intentionally left blank – section deleted] ~~The *IESO* shall review the *prudential support* requirements set out in this chapter at least once every three years. The first review shall be completed no later than September 30, 2010.~~

Application

5.1.3   The rules governing *prudential support* in this Chapter 2 apply to *market participants* in the manner set out below:

<u>Physical Transactions and/or Virtual Transactions</u>

5.1.3.1   Sections 5.1 and 5.2 shall apply to *market participants* authorized to conduct one or any combination of:

a.   *physical transactions* in the *day-ahead market;*

b.   *physical transactions* in the *real-time market*; or

c.   *virtual transactions* in the *day-ahead market,* except for subsection 5.2.6.

<u>Physical Transactions</u>

5.1.3.2   Subject to subsection 5.1.3.4, sections 5.3 to 5.8 shall apply to *market participants* authorized to conduct one or any combination of:

a.   *physical transactions* in the *day-ahead market*; or

b.   *physical transactions* in the *real-time market.*

<u>Virtual Transactions</u>

5.1.3.3   Subject to subsection 5.1.3.4, section 5C shall apply to *market participants* authorized to conduct *virtual transactions* in the *day-ahead market*.

<u>Physical Transactions and Virtual Transactions</u>

5.1.3.4   Section 5D shall apply to *market participants* authorized to conduct both *physical transactions* and *virtual transactions*. Sections 5 and 5C shall also apply, as appropriate, to *market participants* authorized to conduct both *physical transactions* and *virtual transactions,* except for sections 5.4, 5.6, 5C.2 and 5C.4.

<u>Capacity Auctions</u>

5.1.3.5   *Market participants* participating in the *IESO-administered markets* solely as a *capacity market participant* or *capacity auction participant* with a *capacity obligation* shall be subject only to the *capacity prudential support* requirements in section 5B.

5.2   Market Participant Obligations

5.2.1   Each *market participant* shall initially and continually satisfy the obligations set forth in this section 5.2 with regard to the provision of *prudential support* as a condition of participating in (i) *physical transactions* in the *real-time market*s or (ii) *physical transactions* or *virtual transactions* in the *day-ahead market* or (iii) of causing or permitting electricity to be conveyed into, through or out of the *IESO-controlled grid*.

5.2.2   Each *market participant* shall provide to the *IESO* and at all times maintain *prudential support* the value of which is not less than the *market participant's* applicable *prudential support obligations*. For this purpose, the aggregate value of the *prudential support* shall be equal to the value of the undrawn or unclaimed amounts of *prudential support* provided by the *market participant.*

5.2.3   No *market participant* that is required pursuant to section 5.3.9, section 5C.5.1, or

section 5D.5.1 as the case may be, to provide *prudential support* shall participate in the *real-time markets* or the *day-ahead-market* or cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* unless that *market participant* satisfies the *prudential support* requirements of this section, section 5C, section 5D and Appendix 2.3.

5.2.4 Each *market participant* shall provide to the *IESO,* on an ongoing basis, such information as the *IESO* may reasonably require for the purpose of determining that *market participant's* maximum net exposure for *physical transactions* and *virtual transactions*.

5.2.5 If *prudential support* previously provided to the *IESO* by a *market participant* pursuant to section 5.7 (the "*existing support*"), 5C.5, or 5D.5 is due to expire or terminate and, upon expiry or termination of the *existing support,* the total *prudential support* held by the *IESO* in respect of that *market participant* will be less than the *market participant's* applicable *prudential support obligations* then, at least ten *business days* prior to the time at which the *existing support* is due to expire or terminate, the *market participant* must provide to the *IESO* a replacement *prudential support* which will become effective no later than the expiry or termination of the *existing support*, such that the total *prudential support* provided is equal to the *market participant's prudential support obligation*.

5.2.6 Where a *market participant's prudential support obligation* for *physical transactions* has been reduced pursuant to section 5.8 and the relevant credit rating is revised or the relevant payment history has changed, whether under section 5.8 or otherwise, such as to result in an increase in the *market participant's prudential support obligation* then, within five *business days* of any such change, the *market participant* must provide to the *IESO* additional *prudential support* such that the total *prudential support* provided for *physical transactions* is equal to the *market participant's prudential support obligation* for *physical transactions* when calculated on the basis of the revised credit rating or payment history.

5.2.7 Where any part of the *prudential support* provided by a *market participant* otherwise ceases to be current or valid for any reason, the *market participant* must immediately so notify the *IESO* and provide to the *IESO*, within two *business days*, a replacement *prudential support* such that the total *prudential support* provided is at least equal to the *market participant's* applicable *prudential support obligations*.

5.2.7A Notwithstanding any other provision of the *market rules,* the *IESO* may exercise its rights in accordance with section 6.3.3.2 of Chapter 3 and Appendix 2.3 of this Chapter over any amount of *prudential support* that has been provided by a *market participant* or a person providing *prudential support* on behalf of that *market participant* irrespective of whether the *prudential support* was provided for the purpose of satisfying a *prudential support obligation* for *physical transactions* or a *prudential support obligation* for *virtual transactions.*

5.2.8 If, as a result of the *IESO* exercising its rights over the under a *prudential support* provided by a *market participant* in accordance with section 6.3.3.2 of Chapter 3 and Appendix 2.3, the remaining *prudential support* held by the *IESO* in respect of that

market participant is less than the *market participant's* applicable *prudential support obligations*, the *market participant* must, within five *business days* of receiving notice of the exercise by the *IESO* of such rights, provide the *IESO* with additional *prudential support* such that the total *prudential support* provided is equal to the *market participant's* applicable *prudential support obligations*.

5.2.9   A *market participant* to which a *margin call* has been issued pursuant to section 5.4.2, 5C.2.2, or 5D.3.2 shall respond to such *margin call* in accordance with section 5.6, 5C.4 or 5D.4, as the case may be.

5.2.10 For the purpose of section 5, a *retailer* shall be deemed to be an *energy trader.*

5.3   Calculation of Participant Trading Limit, Default Protection Amount and Maximum Net Exposure for Physical Transactions

Maximum Net Exposure

5.3.1   The *IESO* shall determine, for each *market participant* intending to conduct *physical transactions*, subject to section 5.6.5, a *maximum net exposure* for *physical transactions* as the sum of the *market participant's trading limit* for *physical transactions*, the *market participant's default protection amount* for *physical transactions* and amounts, if any, for which the *market participant* is liable under section 2.5.4 of Chapter 7.

Self Assessed Trading Limit

5.3.2   Subject to section 5.3.3, each *market participant* intending to conduct *physical transactions* shall determine and submit to the *IESO*, using forms and procedures as may be established by the *IESO* in the applicable *market manual*, the amount of its *self-assessed trading limit* at least 7 *business days* prior to the start of any *energy market billing period*, even if that *self-assessed trading limit* is zero.

      5.3.2.1   [Intentionally left blank]

          a.   [Intentionally left blank]

          b.   [Intentionally left blank]

      5.3.2.2   [Intentionally left blank]

          a.   [Intentionally left blank]

          b.   [Intentionally left blank]

5.3.2A [Intentionally left blank]

      5.3.2A.1   [Intentionally left blank]

          a.   [Intentionally left blank]

          b.   [Intentionally left blank]

      5.3.2A.2   [Intentionally left blank]

          a.   [Intentionally left blank]

          b.   [Intentionally left blank]

5.3.2A.3   [Intentionally left blank]

5.3.3   The *self-assessed trading limit* submitted by a *market participant* under section 5.3.2 shall be applicable for the remainder of the current and all future *energy market billing periods* until a revised *self-assessed trading limit* is submitted by that *market participant* to the *IESO* in accordance with the provisions of section 5.3.2. If a *market participant* submits a *self-assessed trading limit* pursuant to section 5.3.2, that *self-assessed trading limit* shall, subject to section 5.3.3A as of the next *energy market billing period*, supersede any previous *self-assessed trading limit*, and the previous *self-assessed trading limit* shall not be applicable to any such future *energy market billing periods*.

5.3.3A A *market participant's* revised *self-assessed trading limit* submitted in accordance with section 5.3.3 shall take effect once the *IESO* confirms receipt of any additional *prudential support*, as required by the *IESO*.

Minimum Trading Limit

5.3.4   Subject to section 5.6.5, the *IESO* shall establish a *minimum trading limit* for *physical transactions* for each *market participant* intending to conduct *physical transactions* as follows:

5.3.4.1   the *minimum trading limit* for *physical transactions* for a *metered* *market participant* that is not an *energy trader,* shall be equal to the *IESO's* estimate of the *metered* *market participant's* net *settlement amounts*, excluding estimated *settlement amounts* associated with *virtual transactions* and a *transmission rights*, assuming 7seven days of participation by way of *physical transactions* in the *real-time market* and assuming all *energy* injected or withdrawn is transacted through *physical transactions*the *real-time market*. The *IESO* may use a greater number, up to and including 49 days, of participation in *physical transactions*the *real-time market* for the determination of a *metered* *market participant's* minimum trading limit for *physical transactions* if that *metered* *market participant* that is not an *energy trader* was subject to more than one *margin call* per *energy market billing period* in respect of *physical transactions*, provided that any such *margin call* is not the result of a price spike;

a.   [Intentionally left blank]

b.   [Intentionally left blank]

c.   [Intentionally left blank]

5.3.4.2   the *minimum trading limit* for *physical transactions* for a *market participant* an *energy trader* that is not a *metered market participant* that has conducted *physical transactions* for *energy* for at least three previous *billing periods* shall be equal to 25% of the *IESO's* estimate of the *market participant's* net *settlement amounts* for the upcoming *energy market billing period* associated with *physical transactions*. In estimating this net *settlement amount*, the *IESO* shall, subject to section 5.3.4.3, use an average of the actual net *settlement amounts* for the 3three most recent *energy market billing periods*

in which that market participant has conducted *physical transactions* for *energy*transacted in the *real-time market*. The *IESO* may use a greater percentage, up to and including 100%, of the estimated *market participant's* net *settlement amounts* for the determination of a *market participant's* minimum trading limit for *physical transactions* if that *market participant* was subject to more than one *margin call* in respect of *physical transactions* per *energy market billing period*, provided that any such *margin call* is not caused by a price spike; and

   a. [Intentionally left blank]

   b. [Intentionally left blank]

5.3.4.3   the *minimum trading limit* for *physical transactions* for a *market participant that is* an *energy trader* not a *metered market participant*who has not conducted *physical transactions* for *energy* for at least three previous *billing periods*,transacted for at least 3 months in the *real-time market*, shall be equal to the greater of:

   i.   25% of the absolute value of the *market participant's* estimate of its net *settlement amount* for the upcoming *energy market billing* period. Such a *market participant* shall provide to the IESO, an estimate of its net settlement amount for the upcoming energy market billing period at least 7 business days prior to the start of applicable energy market billing period. The *IESO* may adjust the *market participant's minimum trading limit* at any time if that *market participant's* actual net *settlement amounts* for the current *billing period* are projected to differ significantly from the estimate provided; or

   ii. $25,000.

5.3.4A [Intentionally left blank]

   5.3.4A.1   [Intentionally left blank]

      a. [Intentionally left blank]

      b. [Intentionally left blank]

   5.3.4A.2   [Intentionally left blank]

5.3.4B [Intentionally left blank]

   5.3.4B.1   [Intentionally left blank]

      a. [Intentionally left blank]

      b. [Intentionally left blank]

      c. [Intentionally left blank]

        i.   [Intentionally left blank]

        ii.   [Intentionally left blank]

   d. [Intentionally left blank]

   e. [Intentionally left blank]

        i.   [Intentionally left blank]

        ii.   [Intentionally left blank]

5.3.4B.2   [Intentionally left blank]

   a. [Intentionally left blank]

   b. [Intentionally left blank]

   c. [Intentionally left blank]

        i.   [Intentionally left blank]

        ii.   [Intentionally left blank]

   d. [Intentionally left blank]

   e. [Intentionally left blank]

        i.   [Intentionally left blank]

        ii.   [Intentionally left blank]

5.3.4C [Intentionally left blank]

Establishing Market Participant Trading Limit

5.3.5   Upon receipt of a *market participant's self-assessed trading limit* under section 5.3.2, the *IESO* shall use the greater of the following two amounts for that *market participant's trading limit* for *physical transactions* for the remainder of the current or upcoming *energy market billing period*:

   5.3.5.1   the *market participant's minimum trading limit* for that *energy market billing period* as determined pursuant to section 5.3.4; or

   5.3.5.2   the *market participant's self-assessed trading limit* submitted under section 5.3.2.

5.3.6   If a *market participant* does not provide a *self-assessed trading limit* ~~within the timelines~~ as specified in section 5.3.2, the *IESO* shall use the greater of the following two amounts for that *market participant's trading limit* for *physical transactions* for the remainder of the current or upcoming *energy market billing period*:

   5.3.6.1   the *market participant's minimum trading limit* for that *energy market billing period* as determined pursuant to section 5.3.4; or

   5.3.6.2   the *market participant's trading limit* for *physical transactions* in effect for the current *energy market billing period*.

5.3.6.3   [Intentionally left blank]

5.3.6.4   [Intentionally left blank]

5.3.6.5   [Intentionally left blank]

5.3.6A [Intentionally left blank]

5.3.7   [Intentionally left blank – section deleted] ~~Once a market participant's trading limit has been established pursuant to section 5.3.5 or 5.3.6, that market participant is not permitted to change or request a change to that trading limit during the upcoming energy market billing period.~~

Establishing Market Participant Default Protection Amount

5.3.8   The *IESO* shall, for each *energy market billing period*, establish a *default protection amount* for *physical transactions* for each *market participant* intending to conduct *physical transactions* as follows:

5.3.8.1   for a ~~*metered*~~ *market participant* that is not an *energy trader*, its *default protection amount* shall be equal to the *IESO's* estimate of the ~~*metered*~~ *market participant's* net *settlement amounts* for that *energy market billing period*, excluding estimated *settlement amounts* associated with *virtual transactions* and~~a~~ *transmission right~~s~~*, assuming 21 days of participation ~~in the *real-time market*~~ by way of *physical transactions,* and assuming all *energy* injected or withdrawn is transacted through *physical transactions*~~the real-time market~~; and

5.3.8.2   for a *market participant* that is an *energy trader* ~~not a *metered market participant*~~, the *default protection amount* shall be equal to the *minimum trading limit* for that *market participant* for that *energy market billing period* as determined by the *IESO* pursuant to section 5.3.4.2 or section 5.3.4.3, as applicable.

Adjusting Trading Limit and Default Protection Amount for Physical Bilateral Contracts

5.3.8A A ~~*metered*~~ *market participant* that is not an *energy trader,* with a credit rating of BBB- or higher, subject to any adjustment under section 5.8.2, may request that its *minimum trading limit* and *default protection amount*, in respect of *physical transactions,* be calculated by removing the *energy* quantities associated with the ~~participant's~~*market participant's physical bilateral contracts* registered with the *IESO* provided it submits to the *IESO* the quantity and duration of the applicable *physical bilateral contracts* and it notifies the *IESO* immediately upon a change in the quantity or duration of the *physical bilateral contracts* including the termination of any of the contracts.

5.3.8B If the conditions of 5.3.8A are met the *IESO* shall determine the ~~*metered*~~ *market participant's minimum trading limit* and *default protection amount*, in respect of *physical transactions,* assuming all *energy* injected or withdrawn is transacted through the *day-ahead market* or *real-time market* net of *energy* quantities associated with those *physical bilateral contracts*.

Requirement to Provide Prudential Support

5.3.9   If a *market participant's maximum net exposure* for *physical transactions*, as calculated by the *IESO*, is zero or negative, the *market participant* is not required to provide any form of *prudential support* for *physical transactions* to the *IESO*. If a *market participant's maximum net exposure* for *physical transactions*, as calculated by the *IESO*, is positive, the *market participant* must provide an amount of *prudential support* to the *IESO* equal to its *prudential support obligation* for *physical transactions*.

Price Bases Used for Determining Minimum Trading Limit and Default Protection Amount

5.3.10   The *IESO* shall estimate the net *settlement amounts* for a *market participant* referred to in sections 5.3.4 and 5.3.8 initially based on information provided to the *IESO* by the *market participant* in its *application for authorization to participate* and subsequently using such information as the *IESO* may reasonably require for that purpose and, in each case, on the price bases referred to in 5.3.10A, and the *IESO's estimated market prices* for all other applicable charges for the relevant *energy market billing period*.

5.3.10A   When calculating the *minimum trading limit* and the *default protection amount* for ~~metered~~ market participants other than energy traders in sections 5.3.4, 5.3.8 and 5.3.8B respectively, the *IESO* shall establish and use as its price basis the following:

   5.3.10A.1   for a ~~metered~~ *market participant* ~~other than a *distributor*~~ that is associated with a *generation resource*~~facility~~, *dispatchable load*, or *price responsive load*, the ~~applicable Regulated Price Plan supply cost or its equivalent published by the *OEB*~~ greater of (i) the hourly locational marginal price in the *day-ahead market* or (ii) the hourly average locational marginal price in the *real-time market*; or

   5.3.10A.2   for a ~~metered~~ *market participant* that is ~~a~~associated with a ~~*distributor*~~non-dispatchable load, the ~~applicable Regulated Price Conventional Meter Tier 1 price or its equivalent published by the *OEB*~~ greater of (i) the Ontario zonal price in the *day-ahead market* or (ii) the hourly average Ontario zonal price in the *real-time market*.

5.3.10B   The *IESO* shall annually review each price basis referred to in section 5.3.10A. The *IESO* shall modify the applicable price basis if it has increased or decreased by 15% or more from the price basis used by the *IESO.*

5.3.10C   The *IESO* may, in determining the price basis in accordance with section 5.3.10A, use any applicable prices published by the *OEB*.

Reviewing and Modifying Trading Limits, Default Protection Amount and Maximum Net Exposure

5.3.11   The *IESO* may~~shall~~ review the *minimum trading limit* for *physical transactions* where applicable, and the *trading limit, default protection amount* and *maximum net exposure*, for *physical transactions,* of each *market participant* in circumstances that include~~as follows~~:

   5.3.11.1   prior to the start of each *energy market billing period*;

5.3.11.2   within two *business days* after a *market participant's actual exposure* for *physical transactions* exceeds the *trading limit* for that *market participant*;

5.3.11.3   within two *business days* after it receives notice of any changes to the status of a *market participant* as compared to such status that was in effect when the *market participant's maximum net exposure* for *physical transactions* was last calculated if the *IESO* determines that the change in such status would have a material impact on the *market participant's maximum net exposure*;

5.3.11.4   when the IESO has adjusted a market participant's minimum trading limit for *physical transactions* pursuant to section 5.3.4.3; and

5.3.11.5   when the *IESO* has adjusted its price basis under section 5.3.10B.

5.3.12   The *IESO* may change the *minimum trading limit, trading limit, default protection amount, maximum net exposure* or the *prudential support obligation,* for *physical transactions,* for a *market participant* at any time as a result of a review conducted pursuant to section 5.3.11 and shall promptly notify the *market participant* of any such change. Any change to a *market participant's minimum trading limit, trading limit, default protection amount, maximum net exposure* or *prudential support obligation,* in respect of *physical transactions* shall apply with effect from such time, not being earlier than the time of notification of the changed *minimum trading limit, trading limit, default protection amount, maximum net exposure* or *prudential support obligation* to the *market participant*, as the *IESO* may specify in the notice. The *market participant* must supply the *IESO*, within five *business days* of the effective date of the change, any additional *prudential support* for *physical transactions* that may be required as a result of an increase in the *market participant's prudential support obligation* that results from such change.

5.4   Monitoring of Actual Exposure and Trading Limit for Physical Transactions

5.4.1   If at any time the *actual exposure* for *physical transactions* of a *market participant* that is not also a *virtual trader,* is equal to or exceeds 70% and is less than 100% of the *market participant's trading limit*, the *IESO* shall inform the *market participant* of that fact unless the *market participant* has opted for the *no margin call option* pursuant to section 5.6.4. The *market participant* may, but is not required to, make a cash payment to be applied to reduce its *actual exposure* or take other action to prevent its *actual exposure* from reaching its *trading limit*. No interest shall be paid on any such payment.

5.4.1.1   [Intentionally left blank]

5.4.1.2   [Intentionally left blank]

5.4.2   If at any time the *actual exposure* for *physical transactions* of a *market participant* that is not also a *virtual trader,* equals or exceeds the *market participant's trading limit* for *physical transactions*, the *IESO* shall issue to the *market participant* a *margin call* unless the *market participant* has opted for the *no margin call option* pursuant to section 5.6.4.

5.4.2.1   [Intentionally left blank]

5.4.2.2   [Intentionally left blank]

5.4.3   [Intentionally left blank]

5.5   Calculation of Actual Exposure for Physical Transactions

5.5.1   For the purposes of section 5.4, a *market participant's actual exposure* for *physical transactions* shall be a dollar amount determined by the *IESO* each *business day*, in accordance with the applicable *market manual,* and shall be ~~a dollar amount which is~~ equal to:

   5.5.1.1   the aggregate of:

   a.   all amounts payable by the *market participant* in respect of *physical transactions* for *billing periods* prior to the current *billing period* which remain unpaid by the *market participant*, whether or not the payment date thereof has yet been reached; and

   b.   the *IESO's* reasonable estimate of the aggregate hourly and non-hourly *settlement amounts* payable by the *market participant* in respect of ~~transactions~~ *physical transactions* which have already occurred in the current *billing period*;

   5.5.1.2   less the aggregate of:

   a.   all amounts payable to the *market participant* in respect of *physical transactions* for *billing periods* prior to the current *billing period* which remain unpaid, whether or not the payment date thereof has yet been reached; and

   b.   the *IESO's* reasonable estimate of the aggregate hourly and non-hourly *settlement amounts* payable to the *market participant* in respect of ~~transactions~~*physical transactions* which have already occurred in the current *billing period*.

5.6   Margin Call Requirements and the No Margin Call Option for Physical Transactions

5.6.1   A *market participant* that is not also *virtual trader* must satisfy a *margin call* in respect of *physical transactions* within the time prescribed in section 5.6.2 by paying a portion of the amount payable or which will become payable in respect of the previous or current *energy market billing period*, in accordance with Chapter 9, in an amount sufficient to reduce the *market participant's actual exposure* to no more than the dollar equivalent of 75% of the *market participant's trading limit*. No interest shall be paid on such payments.

   5.6.1.1   [Intentionally left blank]

   5.6.1.2   [Intentionally left blank]

5.6.2   The time within which a *margin call* in respect of *physical transactions* must be satisfied under section 5.6.1 shall be by 4:00 pm on the second *business day* following the date of the *margin call*.

5.6.3   For the purposes of the *market rules*, a payment made pursuant to section 5.6.1 shall be applied first to the amount outstanding for *physical transactions* with respect to the

earliest *billing period* under the *market rules* and, if the amount outstanding under the *market rules* in respect of that *billing period* is less than the amount of the payment, then the excess shall be applied to the next earliest *billing period* for *physical transactions* in respect of which there is an amount outstanding under the *market rules* and so on until there is no excess.

5.6.4   Subject to section 5.6.7, Aa *market participant* shall not be subject to the *margin call* requirements of sections 5.6.1 and 5.6.2, subject to *IESO* approval, if it elects to use the *no margin call option* using forms and procedures as may be established by the *IESO* in the applicable *market manual*.

5.6.5   The *IESO* shall determine the ~~*market participant's*~~ *maximum net exposure* for -*physical transactions* of a *market participant* that is not an *energy trader,* that has selected the *no margin call option*, based on 70 days of market activity and assuming all of the *market participant's energy* is injected or withdrawn ~~is transacted~~ through ~~the~~ *real-time market* physical transactions. For~~non-metered~~ ~~*market participants*~~ an *energy trader* that ~~have~~has selected the *no margin call option*, -the *IESO* shall determine *maximum net exposure* for *physical transactions* based on an estimate of 100% of ~~their~~ its net *settlement amount* for the upcoming energy market billing period. A *market participant* that has elected the *no margin call option* shall not have a *trading limit*.

5.6.6   Other than *small distributors*, any *market participant* that elects to use the *no margin call option* shall not be eligible for reductions in its *prudential support obligations* pursuant to section 5.8.

5.6.7   A *market participant* shall not be eligible to use the *no margin call option* if it is authorized to conduct both *physical transactions* and *virtual transactions*.

5.7   Obligation to Provide Prudential Support for Physical Transactions

5.7.1   Each *market participant* must meet its obligation under this section 5 to provide and maintain *prudential support* for *physical transactions* by providing to the *IESO* and maintaining *prudential support*, the value of which is equal to the *market participant's prudential support obligation* for *physical transactions*.

5.7.2   A *market participant's prudential support obligation* for *physical transactions* must be met through the provision to the *IESO* and the maintenance of *prudential support* in one or more of the following forms:

5.7.2.1   a guarantee or irrevocable commercial letter of credit, which in both cases must be in a form acceptable to the *IESO* and provided by:

a.   a bank named in a Schedule to the *Bank Act*, S.C. 1991, c.46 with a minimum long-term credit rating of "A" from a major bond rating agency as identified in the list referred to in section 5.8.7; or

b.   a credit union licensed by the Financial Services Regulatory Authority~~Commission~~ of Ontario with a minimum long-term credit rating of "A" from a major bond rating agency as identified in the list referred to in section 5.8.7.

5.7.2.2 a guarantee in a form acceptable to the *IESO* provided by a person, other than an *affiliate* of the *market participant,* having a credit rating from a major bond rating agency identified on the list referred to in section 5.8.7;

5.7.2.3 marketable securities in the form of Canadian Government treasury bills. Such treasury bills shall be valued as cash at their current market value less 2 percent to take into account the potential eroding effects of interest rate increases;

5.7.2.4 subject to section 5.7.4 and 5.7.4A, a guarantee in a form acceptable to the *IESO* provided by a person that is an *affiliate* of the *market participant* and that has a credit rating from a major bond rating agency identified on the list referred to in section 5.8.7; and/or

5.7.2.5 cash deposits made with the *IESO* by or on behalf of the *market participant* provided that that *market participant* meets the following criteria:

    a. the *market participant* was already meeting its *prudential support obligation* in whole or in part through a cash deposit on November 4, 2004; and

    b. the *market participant's prudential support obligation* was less than or equal to $200,000 on November 4, 2004 and remains less than or equal to $200,000 thereafter.

5.7.2A A *market participant* who has previously provided *prudential support* for *physical transactions* in accordance with subsections 5.7.2.2 or 5.7.2.4, who thereafter intends to become authorized as a *virtual trader* in accordance with subsection 2.1.1.14 of Chapter 2, shall provide the *IESO* with replacement *prudential support* for *physical transactions*. Such replacement *prudential support* for *physical transactions* shall be dated no earlier than January 1, 2023.

5.7.3 For the purposes of sections 5.7.2.1 and 5.7.2.2, the *IESO* shall establish, maintain, update as required and *publish* a list of organizations eligible to provide the *prudential support* referred to in sections 5.7.2.1 and 5.7.2.2 and shall establish, for each such eligible *prudential support* provider, an aggregate limit of the *prudential support* that may be provided by that *prudential support* provider to *market participants.* If aggregate limits are reached for any of these eligible organizations, *market participants* will be required to obtain *prudential support* from other eligible organizations that are still within their respective *prudential support* limits.

5.7.3A Where a *market participant's prudential support obligation* for *physical transactions* is reduced pursuant to section 5.8.1, 5.8.1A, 5B.5.1 or 5B.5.1A, the *IESO* shall not accept a guarantee from an *affiliate* of the *market participant* pursuant to section 5.7.2.4, unless the *market participant* provides a letter from the applicable major bond rating agency identified in the list referred to in section 5.8.7, stating that the two ratings are not directly linked and are stand alone ratings in relation to each other.

5.7.3B The *IESO* shall not accept a guarantee from an *affiliate* of the *market participant*

pursuant to section 5.7.2.4 if the *affiliate* is also a *market participant* and has obtained a reduction of its own *prudential support obligation* for *physical transactions* pursuant to section 5.8.1, 5.8.1A, 5B.5.1 or 5B.5.1A.

5.7.4   For *market participants*, other than a *distributor*, subject to sections 5.7.3A and 5.7.3B the *IESO* shall not accept a guarantee from a rated *affiliate* of the *market participant* pursuant to section 5.7.2.4 where the value of the guarantee exceeds the following;

Credit Rating Category of Affiliate using Standard and Poor's Rating Terminology	Maximum Amount which May be Guaranteed by Affiliate
AA- and above or equivalent	100% of *maximum net exposure* of all *market participants* guaranteed by *affiliate*
A-, A, A+ or equivalent	Greater of 90% of *maximum net exposure* or $37,500,000 of all *market participants* guaranteed by *affiliate*
BBB-, BBB, BBB+ or equivalent	Greater of 65% of *maximum net exposure* or $15,000,000 of all *market participants* guaranteed by *affiliate*
BB-, BB, BB+ or equivalent	Greater of 30% of *maximum net exposure* or $4,500,000 of all *market participants* guaranteed by *affiliate*
Below BB- or equivalent	0

5.7.4.A   For *distributors*, subject to sections 5.7.3A and 5.7.3B the *IESO* shall not accept a guarantee from a rated *affiliate* of the *market participant* pursuant to section 5.7.2.4 where the value of the guarantee exceeds the following:

Credit Rating Category of Affiliate using Standard and Poor's Rating Terminology	Maximum Amount which May be Guaranteed by Affiliate
AA- and above or equivalent	100% of *maximum net exposure* of all *market participants* guaranteed by *affiliate*
A-, A, A+ or equivalent	Greater of 95% of *maximum net exposure* or $45,000,000 of all *market participants* guaranteed by *affiliate*
BBB-, BBB, BBB+ or equivalent	Greater of 80% of *maximum net exposure* or $22,500,000 of all *market participants* guaranteed by *affiliate*
BB-, BB, BB+ or equivalent	Greater of 55% of *maximum net exposure* or $7,500,000 of all *market participants* guaranteed by *affiliate*
Below BB- or equivalent	0

5.7.5 The minimum terms and conditions that shall be included in the *prudential support* for *physical transactions* shall be as follows:

5.7.5.1 *prudential support* provided in accordance with sections 5.7.2.1, 5.7.2.2 and 5.7.2.4 shall be obligations in writing;

5.7.5.2 *prudential support* provided in accordance with sections 5.7.2.3 and 5.7.2.5 shall be obligations reflected in a written instrument in a form acceptable to the *IESO*;

5.7.5.3 *prudential support* provided in accordance with sections 5.7.2.1, 5.7.2.3 and 5.7.2.5 shall constitute valid and binding unsubordinated obligations to pay to the *IESO* amounts in accordance with its terms which relate to the obligations of the relevant *market participant* under the *market rules*; and

5.7.5.4 *prudential support* provided in accordance with sections 5.7.2.1 to 5.7.2.5 shall permit drawings or claims by the *IESO* on demand to a stated certain amount.

5.8 Reductions in Prudential Support Obligations for Physical Transactions

5.8.1 Subject to section 5.8.2, the *prudential support obligation* for *physical transactions* of a rated *market participant*, other than a *distributor*, may be reduced relative to the *market participant's maximum net exposure* for *physical transactions* by an amount equal to the monetary value prescribed, by the table below, to a credit rating from a major bond rating agency identified in the list referred to in section 5.8.7 issued and in effect in respect of the *market participant*.

Credit Rating Category using Standard and Poor's Rating Terminology	Allowable Reduction in Prudential Support
AA- and above or equivalent	100% of *maximum net exposure*
A-, A, A+ or equivalent	Greater of 90% of *maximum net exposure* or $37,500,000
BBB-, BBB, BBB+ or equivalent	Greater of 65% of *maximum net exposure* or $15,000,000
BB-, BB, BB+ or equivalent	Greater of 30% of *maximum net exposure* or $4,500,000
Below BB- or equivalent	0

5.8.1A Subject to section 5.8.2, the *prudential support obligation* for *physical transactions* of a rated *distributor* may be reduced relative to the *market participant's maximum net exposure* for *physical transactions* by an amount equal to the monetary value prescribed, by the table below, to a credit rating from a major bond rating agency identified in the list referred to in section 5.8.7 issued and in effect in respect of the *market participant*.

Credit Rating Category using Standard and Poor's Rating Terminology	Allowable Reduction in Prudential Support
AA- and above or equivalent	100% of *maximum net exposure*
A-, A, A+ or equivalent	Greater of 95% of *maximum net exposure* or $45,000,000
BBB-, BBB, BBB+ or equivalent	Greater of 80% of *maximum net exposure* or $22,500,000
BB-, BB, BB+ or equivalent	Greater of 55% of *maximum net exposure* or $7,500,000
Below BB- or equivalent	0

5.8.2   Any recommendation to move a *market participant* to "credit watch negative" by any of the major bond rating agencies identified in the list referred to in section 5.8.7 shall be deemed to automatically result in a one-notch reduction in terms of the credit rating (for example, from BBB+ to BBB) of that *market participant* for the purpose of determining the *market participant's prudential support obligation*.

5.8.2A [Intentionally left blank – section deleted.]~~The operation of section 5.8.2 shall be suspended for *distributors* as of November 19, 2002, until February 14, 2003 or until such other date as may be determined by a resolution of the *IESO Board*. The management of the *IESO* shall monitor and report to the *IESO Board* on the credit situation of *distributors* and other *market participants* and the *IESO Board* shall modify the suspension of section 5.8.2 (or, if appropriate, shall expand the scope of the suspension) if the credit situation changes in a way that makes such modification desirable.~~

5.8.3   Subject to section 5.8.6, the *prudential support obligation* for *physical transactions* of a *market participant* may be reduced relative to the *market participant's maximum net exposure* for *physical transactions* or, where applicable, relative to the otherwise applicable *prudential support obligation* calculated in accordance with section 5.3.4B, by an amount equal to the monetary value ascribed, in accordance with section 5.8.4 or 5.8.5, to the *market participant's* historical good payment history in Ontario, which shall be assessed by the *IESO* on the basis of:

5.8.3.1   evidence provided by the *market participant* as to the continuous purchase of electricity by the *market participant* prior to the effective date of the *IESO-administered markets* during which time no call for collateral was issued to that *market participant* to protect the supplier from the risk of a payment default by that *market participant*;

5.8.3.2   verification of the evidence referred to in section 5.8.3.1 by the *IESO*; and

5.8.3.3   the *market participant's* payment history in the *IESO-administered markets* provided that the *market participant's* payment history includes no *event of default*.

5.8.4 The *IESO* shall determine the dollar amount of any allowable reduction in the *prudential support obligation* for *physical transactions* of an unrated *market participant*, other than a *distributor,* by an amount equal to the monetary value prescribed, by the table below:

Good Payment History Categories for Non-Distributors	Allowable Reduction in Prudential Support
≥6 years	Lesser of 50% of *maximum net exposure* or $12,000,000
≥5 years, <6 years	Lesser of 30% of *maximum net exposure* or $7,500,000
≥4, <5 years	Lesser of 25% of *maximum net exposure* or $6,000,000
≥3, <4 years	Lesser of 20% of *maximum net exposure* or $4,500,000
≥2, <3 years	Lesser of 15% of *maximum net exposure* or $3,000,000
<2 years	0

5.8.5 If the *market participant* is an unrated *distributor*, the *IESO* shall determine the dollar amount of any allowable reduction in the *market participant's prudential support obligation* for *physical transactions* by an amount equal to the monetary value prescribed, by the table below:

Good Payment History Categories for Distributors	Allowable Reduction in Prudential Support
≥6 years	Lesser of 80% of *maximum net exposure* or $14,000,000
≥5 years, <6 years	Lesser of 65% of *maximum net exposure* or $9,000,000
≥4, <5 years	Lesser of 45% of *maximum net exposure* or $7,500,000
≥3, <4 years	Lesser of 35% of *maximum net exposure* or $6,000,000
≥2, <3 years	Lesser of 25% of *maximum net exposure* or $4,500,000
<2 years	0

For purposes of this section 5.8.5, the historical payment history of a *distributor* that is the transferee under a transfer by-law made pursuant to subsection 145(1) of the *Electricity Act, 1998* shall be deemed to include the historical payment history of

the *distributor* whose licence has been transferred to the transferee under such by-law. For purposes of this section 5.8.5, the historical payment history of a *distributor* that is the successor at law to two or more *distributors*, shall be deemed to include the historical payment history of the predecessor *distributors*.

5.8.6 The following restrictions shall apply to the provision of reductions in a *market participant's prudential support obligation* for *physical transactions* as provided for under sections 5.8.1, 5.8.1A, and 5.8.3:

5.8.6.1 subject to the last paragraph of section 5.8.5, a *market participant* shall not be entitled to a reduction in its *prudential support obligation* pursuant to section 5.8.3 using the payment history of an *affiliate*; ~~and~~

5.8.6.2 a *market participant* that has a credit rating from a major bond rating agency identified in the list referred to in section 5.8.7 shall not be entitled to a reduction in its *prudential support obligation* under section 5.8.3; and~~.~~

5.8.6.3 an *energy trader* shall not receive a reduction to its *prudential support obligation* for *physical transactions* pursuant to section 5.8.1 until the *energy trader* has conducted transactions for *energy* in the *IESO-administered markets* for at least three previous *billing periods.*

5.8.7 For the purposes of this chapter, the *IESO* shall establish, maintain, update as required and *publish* a list of major bond rating agencies eligible to provide the credit ratings mentioned throughout.

5.8.8 The *IESO* shall reduce the *prudential support obligation* for *physical transactions* of a *distributor* by an amount equal to 60% of the *distributor's* collection of *prudential support,* in the forms specified in section 5.7.2.1, 5.7.2.2, 5.7.2.3, or 5.7.2.4, from the *distributor's* customers. In order to qualify for this reduction in *prudential support obligation* the *distributor* shall provide the *IESO* with an affidavit attesting to the amount of *prudential support* of the types specified in this section which the *distributor* has collected from its customers attached to which by way of exhibits shall be copies of bank statements showing any cash deposits and any applicable letters of credit, guarantees, or Government of Canada T-bills held as *prudential support*. The *IESO* shall first deduct the *distributor's* collection of *prudential support* from the *distributor's* customers before applying any other *prudential support obligation* deductions in respect of *physical transactions*.

Part 5 – IESO Board Decision Rationale

Insert Text Here

Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00453-R01
Subject:	Market Renewal Program: Prudential Security
Title:	Market Renewal Program: Prudential Security and Virtual Transactions
Nature of Proposal:	☐ Alteration ☐ Deletion ☒ Addition
Chapter:	2
Appendix:	
Sections:	New: 5C.1, 5C.2, 5C.3, 5C.4, 5C.5, 5C.6
Sub-sections proposed for amending:	New: 5C.1.1, 5C.1.2, 5C.1.3, 5C.1.4, 5C.1.5, 5C.1.6, 5C.1.7, 5C.1.8, 5C.1.9, 5C.1.9.1, 5C.1.9.2, 5C.1.10, 5C.1.11, 5C.1.12, 5C.1.12.1, 5C.1.12.2, 5C.1.12.3, 5C.1.12.4, 5C.1.12.5, 5C.1.12.6, 5C.1.13, 5C.2.1, 5C.2.2, 5C.2.3, 5C.3.1, 5C.3.1.1, 5C.3.1.2, 5C.3.2, 5C.4.1, 5C.4.2, 5C.4.3, 5C.4.4, 5C.5.1, 5C.5.2, 5C.5.2.1, 5C.5.3, 5C.6.1

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	October 13, 2020
2.0	Draft for Stakeholder Review	December 4, 2020
3.0	Draft for Technical Panel Review	March 9, 2021

Approved Amendment Publication Date:

Approved Amendment Effective Date:

Part 3 - Explanation for Proposed Amendment

Provide a brief description of the following:

- 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 create a new section within the prudential support provisions of the market rules, for day-ahead market (DAM) virtual transactions, which specify the:

1. Calculation of a virtual trader's trading limit, default protection amount and maximum net exposure;
2. Monitoring of actual exposure and trading limit;
3. Calculation of actual exposure;
4. Margin call requirements;
5. Obligation to provide prudential support;
6. Reductions in prudential support obligations.

This proposal is based on input from various stakeholder engagement initiatives for the Market Renewal Program (MRP).

Further information on MRP can be found on the IESO's Market Renewal webpage.

Background

Refer to MR-00453-R00.

Discussion

Additional rule provisions are required in order to implement a new prudential process related to calculating and supporting prudential support obligations for DAM virtual transactions.

New proposed section 5C for day-ahead market virtual transactions mirror the existing physical transaction prudential support market rule provisions in Chapter 2.

The following amendments are proposed to codify the design elements of the virtual prudential design:

- Insert a new section 5C to reflect the prudential support obligations required for virtual traders intending to conduct virtual transactions. The key elements of section 5C are as follows:

1. Calculation of a Virtual Trader's Trading Limit, Default Protection Amount and Maximum Net Exposure for Virtual Transactions:

- Insert section 5C.1.1 to specify that the IESO shall determine, for each virtual trader, a maximum net exposure equal to the sum of the virtual trader's trading limit and default protection amount.

Maximum Daily Trading Limit (in MWh):

- Insert section 5C.1.2 obligating each virtual trader intending to conduct virtual transactions to submit to the IESO, using forms and procedures as specified in the applicable market manual (MM 5.4 – Prudential Support), the absolute value of its maximum daily trading limit (in MWh). The absolute value of the participant submitted maximum daily trading limit (in MWh) will be used to calculate the minimum trading limit (in dollars) and default protection amount for virtual transactions.
- Insert section 5.1.3 to specify that a virtual trader's maximum daily trading limit (in MWh) will be applicable for all future billing periods until a revised maximum daily trading limit is submitted by that virtual trader in accordance with section 5C.1.2. Section 5C.1.4 will specify that upon submission of a new maximum daily trading limit by a virtual trader, this new figure will take effect once the IESO confirms receipt of any additional prudential support.

Minimum Trading Limit (dollars):
- Insert section 5C.1.5 specifying that the IESO shall establish a minimum trading limit (in dollars) for each virtual trader equal to the IESO's estimate of the virtual trader's net settlement amounts, assuming two days of participation in the day-ahead market. Specify that the IESO may use a greater number of days, up to including seven days if that virtual trader was subject to more than one margin call per billing period.

Establishing Market Participant Trading Limit:
- Insert section 5C.1.6 which specifies that for virtual transactions, the IESO established minimum trading limit shall be the trading limit for that virtual trader. As a comparison, for physical transactions, the trading limit is the greater of the minimum trading limit and a self-assessed trading limit that may be submitted by a market participant. For virtual transactions, the concept of a self-assessed trading limit does not exist.

Establishing Market Participant Default Protection Amount:
- Insert section 5C.1.7 specifying that the IESO shall establish a default protection amount (in dollars) for each virtual trader equal to the IESO's estimate of the virtual trader's net settlement amounts, assuming seven days of participation in the day-ahead market.

Requirement to Provide Prudential Support:
- Insert section 5C.1.8 to specify that if a virtual trader's maximum net exposure, as calculated by the IESO is positive, the virtual trader must provide an amount of prudential support to the IESO equal to its prudential support obligation.

Price Delta Used for Determining Minimum Trading Limit and Default Protection Amount:
- Insert section 5C.1.9 to specify the IESO's calculation of the price delta for the purposes of calculating the minimum trading limit and default protection amount for virtual transactions as follows:

  - Enduring price delta: Once three years of historical data is available in the new market, the price delta will be equal to the absolute value of the difference between the day-ahead virtual zonal energy price and the hourly average real-time virtual

zonal energy price, considering up to the 97th percentile based on the IESO's repository of three years of historical data;

- Interim price delta: Until three years of historical data is available, the interim price delta will be estimated by the IESO based on relevant proxies and may consider, but will not be limited to the following:
  - Shadow prices from the day-ahead commitment process and the real-time market;
  - Price delta information from day-ahead and real-time markets in neighboring jurisdictions;
  - Temporal weightings of the data used to calculate the day-ahead and real-time price delta.

- Insert section 5C.1.10 to specify that the IESO shall review the price delta referred to in section 5C.1.9 at least once annually. Specify that the IESO shall modify the applicable price delta if it has increased or decreased by 15% or more from the price delta used by the IESO at the relevant time.

- Insert section 5C.1.11 to specify that the IESO shall publish annually the enduring price delta or interim price delta as applicable.

Reviewing and Modifying Trading Limits, Default Protection Amount and Maximum Net Exposure:

- Insert section 5C.1.12 to specify the instances when the IESO may review the minimum trading limit, trading limit, default protection amount and maximum net exposure of each virtual trader authorized to conduct virtual transactions. This section is mirrored after section 5.3.11 for physical transactions.

- Insert section 5C.1.13 to specify that the IESO may change the minimum trading limit, trading limit and default protection amount, maximum net exposure or the prudential support obligation for a virtual trader at any time as a result of the review pursuant to section 5C.1.12, and promptly notify the virtual trader of any such change. The virtual trader must provide additional prudential support within five business days of the effective date of the change. This section is mirrored after section 5.3.12 for physical transactions.

2. Monitoring of Actual Exposure and Trading Limit for Virtual Transactions:
- Insert section 5C.2.1, 5C.2.2 - these sections establish thresholds for issuing margin call warnings and margin calls when actual exposure is 70% or greater, and is less than 100%, and when actual exposure exceeds a virtual trader's trading limit respectively. The thresholds mirror those for physical transactions.

- Insert section 5C.2.2 to specify that when a margin call is sent to a virtual trader as a result of virtual transactions, that the IESO will reject subsequent virtual trader bids and offers until the virtual trader satisfies the margin call.

- Insert section 5C.2.3 to specify that the IESO shall reject a virtual trader's bid or offer in respect of virtual transactions via two additional screening methods specified in the Prudential detailed design if:

  - The absolute sum of a virtual trader's virtual transaction bids/offers in MWh exceed the virtual trader's daily trading limit for a trade day; or

  - The IESO's estimated daily cumulative dollar exposure exceeds the virtual trader's trading limit.

  The above two conditions will be codified in the market rules in new chapter 7A (The Day-Ahead Market) as part of the Offers, Bids, and Data Inputs market rule amendments.

3. Calculation of Actual Exposure for Virtual Transactions:

- Section 5C.3.1 obligates the IESO to calculate the actual exposure of all virtual traders who engage in virtual transactions and prescribes a method for calculating actual exposure which mirrors that used for physical transactions. Additional details on the actual exposure calculation will be specified in the applicable market manual. This calculation of actual exposure for virtual transactions is used for virtual traders authorized to conduct only virtual transactions, as well as market participants authorized to conduct both virtual and physical transactions (please see MR-00453-R02 – Calculation of Consolidated Actual Exposure);

- Section 5C.3.2 obligates the IESO to publish daily, a price delta report for the purposes of calculating actual exposure for virtual transactions.

4. Margin Call Requirements for Virtual Transactions:

- Sections 5C.4.1 and 5C.4.2 obligate virtual traders to:

  - Make sufficient payment of a virtual transaction margin call to reduce the virtual trader's actual exposure to no more than the equivalent of 75% of the virtual trader's trading limit for virtual transactions.

  - Pay all virtual transaction margin calls by 4:00 pm on the second business day following the issuance of such margin call.

  These obligations mirror margin call payment requirements for physical transactions as per the existing market rules.

- Section 5C.4.3 specifies how margin call payments will be applied, and mirrors the application for physical transaction margin calls.

- Section 5C.4.4 obligates the IESO to reinstate a virtual trader's ability to conduct virtual transactions upon receipt of a margin call payment in respect of virtual transactions.

5. Obligation to Provide Prudential Support for Virtual Transactions:

- Sections 5C.5.1, 5C.5.2 and 5C.5.2.1 mirror the market rules for physical transactions and prudential support obligations. For virtual transactions, only letters of credit will be accepted.

- Section 5C.5.3 obligates the IESO to establish, maintain, update and publish a list of financial institutions eligible to provide letters of credit for virtual transactions and the aggregate limits allowable for each financial institution.

6. <u>Reductions in Prudential Support Obligations for Virtual Transactions:</u>
- Section 5C.6.1 specifies that, subject to IESO approval, a virtual trader that is a market creditor based on its physical transactions as a generator, that has achieved creditor status in its most recent six energy market billing periods, may receive a reduction to its prudential support obligation by an amount up to 75% of the average amount that the IESO owes to the virtual trader during the relevant six billing periods.

Part 4 - Proposed Amendment

Chapter 2

5C.   Virtual Transactions

5C.1   Calculation of Participant Trading Limit, Default Protection Amount and Maximum Net Exposure for Virtual Transactions

Maximum Net Exposure

5C.1.1 The *IESO* shall determine, for each *virtual trader*, a *maximum net exposure* for *virtual transactions* as the sum of the *virtual trader's trading limit* for *virtual transactions* and the *virtual trader's default protection amount* for *virtual transactions*.

Maximum Daily Trading Limit

5C.1.2 Each *virtual trader* intending to conduct *virtual transactions* shall determine and submit to the *IESO*, using forms and procedures as may be established by the *IESO* in the applicable *market manual*, the absolute value of its *maximum daily trading limit* (in MWh).

5C.1.3 The *maximum daily trading limit* submitted by a *virtual trader* under section 5C.1.2 shall be applicable for the current and all future *billing periods* until a revised *maximum daily trading limit* is submitted by that *virtual trader* to the *IESO* in accordance with section 5C.1.2. If a *virtual trader* submits a *maximum daily trading limit* pursuant to section 5C.1.2, that *maximum daily trading limit* shall, subject to section 5C.1.4, supersede any previous *maximum daily trading limit*, and the previous *maximum daily trading limit* shall not be applicable to any such future *billing periods*.

5C.1.4 A *virtual trader's* revised *maximum daily trading limit* submitted in accordance with section 5C.1.3 shall take effect once the *IESO* confirms receipt of any additional *prudential support*, as required by the *IESO*.

Minimum Trading Limit

5C.1.5 The *IESO* shall establish a *minimum trading limit* for *virtual transactions* for each *virtual trader* equal to the *IESO's* estimate of the *virtual trader's* net *settlement amounts*, assuming two days of participation in the *day-ahead market*. The *IESO* may use a greater number, up to and including seven days of participation in the *day-ahead market* for the determination of a *virtual trader's minimum trading limit* for *virtual transactions*, if that *virtual trader* was subject to more than one *margin call* per *billing period*.

Establishing Trading Limits for Virtual Transactions

5C.1.6 For *virtual transactions*, the *IESO* established *minimum trading limit* determined in accordance with section 5C.1.5 shall be the *trading limit* for *virtual transactions* for that *virtual trader* for the current or upcoming *billing period*.

Establishing Default Protection Amounts for Virtual Transactions

5C.1.7 The *IESO* shall, for each *billing period*, establish a *default protection amount* for *virtual transactions* for each *virtual trader* equal to the *IESO's* estimate of the *virtual trader's* net *settlement amounts*, assuming seven days of participation in the *day-ahead* market.

Requirement to Provide Prudential Support

5C.1.8 If a *virtual trader's maximum net exposure* for *virtual transactions*, as calculated by the *IESO*, is zero or negative, the *virtual trader* is not required to provide any form of *prudential support* for *virtual transactions* to the *IESO*. If a *virtual trader's maximum net exposure* for *virtual transactions*, as calculated by the *IESO*, is positive, the *virtual trader* must provide an amount of *prudential support* to the *IESO* equal to its *prudential support obligation* for *virtual transactions*.

Price Delta Used for Determining Minimum Trading Limit and Default Protection Amount

5C.1.9 For purposes of calculating the *minimum trading limit* for *virtual transactions* and the *default protection amount* for *virtual transactions*, the *IESO* shall calculate the price delta ($\Delta DAP_{VT}, ARTP_{VT}$) as follows:

    5C.1.9.1   The price delta ($\Delta DAP_{VT}, ARTP_{VT}$) will be the absolute value of the difference between the day-ahead virtual zonal *energy* price (DAP_{VT}) and the hourly average real-time virtual zonal *energy* price, and consider up to the 97th percentile based on the *IESO's* repository of three years of historical data from all applicable *virtual transaction zonal trading entities* within the *IESO-administered markets*, subject to subsection 5C.1.9.2;

    5C.1.9.2   Until three years of historical data is available, the price delta ($\Delta DAP_{VT}, ARTP_{VT}$) shall be estimated by the *IESO* based on relevant proxies and deemed to mean the "interim price delta" ($\Delta DAP_{VTI}, ARTP_{VTI}$). The interim price delta may consider, but will not be limited to the following:

        a.   shadow prices from the day-ahead commitment process and the *real-time market*;

b. price delta information from *day-ahead markets* and *real-time markets* in neighbouring jurisdictions;

c. temporal weightings of the data used to calculate the day-ahead and real-time price delta.

5C.1.10 The *IESO* shall review the price delta referred to in section 5C.1.9, at least once annually.– The *IESO* shall modify the applicable price delta if it has increased or decreased by 15% or more from the price delta used by the *IESO*.

5C.1.11 The *IESO* shall *publish* annually the price delta described in section 5C.1.9.

Reviewing and Modifying Trading Limits, Default Protection Amount and Maximum Net Exposure

5C.1.12 The *IESO* may review the *minimum trading limit, trading limit, default protection amount* and *maximum net exposure*, for *virtual transactions*, of each *virtual trader* in circumstances that include:

5C.1.12.1 prior to the start of each *energy market billing period*;

5C.1.12.2 within two *business days* after a *virtual trader's actual exposure* for *virtual transactions* exceeds the *virtual trader's trading limit* for *virtual transactions*;

5C.1.12.3 within two *business days* after it receives notice of any changes to the status of a *virtual trader* as compared to such status that was in effect when the *virtual trader's maximum net exposure* for *virtual transactions* was last calculated if the *IESO* determines that the change in such status would have a material impact on the *virtual trader's maximum net exposure* for *virtual transactions*;

5C.1.12.4 when the *IESO* has adjusted a *virtual trader's minimum trading limit,* if the *virtual trader* was subject to more than one *margin call* per *billing period,* pursuant to section 5C.1.4; and

5C.1.12.5 when the *IESO* has adjusted the price delta under section 5C.1.9.

5C.1.12.6 when a *virtual trader* submits a revised *maximum daily trading limit* in accordance with section 5C.1.3.

5C.1.13 The *IESO* may change the *minimum trading limit, trading limit, default protection amount, maximum net exposure* or the *prudential support obligation*, for *virtual transactions*, for a *virtual trader* at any time as a result of a review conducted pursuant to section 5C.1.12 and shall promptly notify the *virtual trader* of any such change. Any change to a *virtual trader's minimum trading limit, trading limit, default protection amount, maximum net exposure* or *prudential support obligation* for *virtual transactions* shall apply with effect from such time, not being earlier than the time of notification of the changed *minimum trading limit, trading limit, default protection amount, maximum net exposure* or *prudential support obligation* for *virtual transactions* to the *virtual trader*, as the *IESO* may specify in the notice. The *virtual trader* must supply the *IESO*, within five *business days* of the effective date of the

change, any additional *prudential support* for *virtual transactions* that may be required as a result of an increase in the *virtual trader's prudential support obligation* that results from such change.

5C.2   Monitoring of Actual Exposure and Trading Limit for Virtual Transactions

5C.2.1 If at any time the *actual exposure* for *virtual transactions* of a *virtual trader* that is not authorized to conduct *physical transactions*, is equal to or exceeds 70% and is less than 100% of the *virtual trader's trading limit* for *virtual transactions*, the *IESO* shall inform the *virtual trader* of that fact. The *virtual trader* may, but is not required to, make a cash payment to be applied to reduce its *actual exposure* or take other action to prevent its *actual exposure* from reaching its *trading limit*. No interest shall be paid on any such payment.

5C.2.2 If at any time the *actual exposure* for *virtual transactions* of a *virtual trader* that is not authorized to conduct *physical transactions*, equals or exceeds the *virtual trader's trading limit* for *virtual transactions*, the *IESO* shall issue to the *virtual trader* a *margin call* in respect of *virtual transactions*. Upon issuance of a *margin call*, the *IESO* shall reject subsequent *virtual trader bids* and *offers* for *virtual transactions* until the *virtual trader* satisfies the *margin call* in accordance with section 5C.4.1;

5C.2.3 The *IESO* shall reject a *virtual trader's bids* and *offers* in respect of a *virtual transaction,* in the circumstances provided by in sections 2.6.7.5 and 2.6.7.6 of Chapter 7A.

5C.3   Calculation of Actual Exposure for Virtual Transactions

5C.3.1 For the purposes of 5C.2 and 5D.2.2, a *virtual trader's actual exposure* for *virtual transactions* shall be a dollar amount determined by the *IESO* each *business day*, in accordance with the applicable *market manual*, and shall be equal to:

5C.3.1.1   the aggregate of:

a.   all amounts payable by the *virtual trader* in respect of *virtual transactions* for *billing periods* prior to the current *billing period* which remain unpaid by the *virtual trader*, whether or not the payment date thereof has yet been reached; and

b.   the *IESO's* reasonable estimate of the aggregate hourly and non-hourly *settlement amounts* payable by the *virtual trader* in respect of *virtual transactions* which have already occurred in the current *billing period*;

5C.3.1.2   less the aggregate of:

a.   all amounts payable to the *virtual trader* in respect of *virtual transactions* for *billing periods* prior to the current *billing period* which remain unpaid, whether or not the payment date thereof has yet been reached; and

b.   the *IESO's* reasonable estimate of the aggregate hourly and non-hourly *settlement amounts* payable to the *virtual trader* in respect of *virtual transactions* which have already occurred in the current *billing period*.

5C.3.2 The *IESO* shall *publish* daily, a price delta for the purposes of calculating the daily

cumulative *actual exposure* for *virtual transactions*. This price delta will be the absolute value of the difference between the day-ahead virtual zonal *energy* price (DAP$_{VT}$) and the hourly average real-time virtual zonal *energy* price, and consider up to the 97th percentile observed for the 30 calendar days prior to the given *trading day* of the current year, and 30 calendar days prior and after the same *trading day* and month for the prior 24 months for each of the virtual zones.

5C.4. Margin Call Requirements for Virtual Transactions

5C.4.1 A *virtual trader* that is not also authorized to conduct *physical transactions* must satisfy a *margin call* in respect of *virtual transactions* within the time prescribed in section 5C.4.3 by paying a portion of the amount payable or which will become payable in respect of the previous or current *energy market billing period*, in accordance with Chapter 9, in an amount sufficient to reduce the *virtual trader's actual exposure* for *virtual transactions* to no more than the dollar equivalent of 75% of the *virtual trader's trading limit* for *virtual transactions*. No interest shall be paid on such payments.

5C.4.2 The time within which a *margin call* in respect of *virtual transactions* must be satisfied under section 5C.4.1 shall be by 4:00 pm on the second *business day* following the date of the *margin call*.

5C.4.3 For the purposes of the *market rules*, a payment made pursuant to section 5C.4.2 shall be applied first to the amount outstanding for *virtual transactions* with respect to the earliest *billing period* under the *market rules* and, if the amount outstanding under the *market rules* in respect of that *billing period* is less than the amount of the payment, then the excess shall be applied to the next earliest *billing period* for *virtual transactions* in respect of which there is an amount outstanding under the *market rules* and so on until there is no excess.

5C.4.4 Upon receipt of a *margin call* payment in respect of *virtual transactions* in accordance with section 5C.4.1, the *IESO* shall reinstate the *virtual trader's* ability to conduct *virtual transactions*.

5C.5 Obligation to Provide Prudential Support for Virtual Transactions

5C.5.1 Each *virtual trader* must meet its obligation under this section 5C to provide and maintain *prudential support* for *virtual transactions* by providing to the *IESO* and maintaining *prudential support*, the value of which is equal to the *virtual trader's prudential support obligation* for *virtual transactions*.

5C.5.2 A *virtual trader's prudential support obligation* for *virtual transactions* must be met through the provision to the *IESO* and the maintenance of *prudential support* in one or more of the following forms:

5C.5.2.1 a guarantee or irrevocable commercial letter of credit, which in both cases must be in a form acceptable to the *IESO* and provided by:

a. a bank named in a Schedule to the *Bank Act*, S.C. 1991, c.46 with a minimum long-term credit rating of "A" from a major bond rating agency as identified in the list referred to in section 5C.5.3; or

b. a credit union licensed by the Financial Services Regulatory Authority of Ontario with a minimum long-term credit rating of "A" from a major bond rating agency as identified in the list referred to in section 5C.5.3.

5C.5.3 For the purposes of sections 5C.5.2.1, the *IESO* shall establish, maintain, update as required and *publish* a list of organizations eligible to provide the *prudential support* referred to in sections 5C.5.2.1 and shall establish, for each such eligible *prudential support* provider, an aggregate limit of the *prudential support* that may be provided by that *prudential support* provider to *virtual traders.* If aggregate limits are reached for any of these eligible organizations, *virtual traders* will be required to obtain *prudential support* from other eligible organizations that are still within their respective *prudential support* limits.

5C.6   Reductions in Prudential Support Obligations for Virtual Transactions

5C.6.1 Subject to the *IESO's* approval, a *virtual trader* that is a *market creditor* based on its *physical transactions* as a *generator*, that has achieved *market creditor* status in its most recent six *energy market billing periods*, may receive a reduction to its *prudential support obligation* for *virtual transactions* as calculated by the *IESO,* by an amount up to 75% of the average amount that the *IESO* owes to the *virtual trader* during the relevant six *billing periods.*

Part 5 – IESO Board Decision Rationale

Insert Text Here

Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00453-R02
Subject:	Market Renewal Program: Prudential Security
Title:	Market Renewal Program: Prudential Security: Consolidated Actual Exposure and Monitoring
Nature of Proposal:	☐ Alteration ☐ Deletion ☒ Addition
Chapter:	2
Appendix:	
Sections:	New: 5D.1, 5D.2, 5D.3, 5D.4, 5D.5
Sub-sections proposed for amending:	New: 5D.1.1, 5D.2.1, 5D.2.2, 5D.3.1, 5D.3.2, 5D.3.3, 5D.4.1, 5D.4.2, 5D.4.3, 5D.4.4, 5D.5.1, 5D.5.1.1, 5D.5.1.2

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	October 13, 2020
2.0	Draft for Stakeholder Review	December 4, 2020
3.0	Draft for Technical Panel Review	March 9, 2021

Approved Amendment Publication Date:

Approved Amendment Effective Date:

Part 3 - Explanation for Proposed Amendment

Provide a brief description of the following:

- 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 create a new section within the prudential support provisions of the market rules, for market participants that are authorized to conduct both physical transactions and virtual transactions, which specify the:

1. Calculation of consolidated actual exposure and consolidated trading limit;
2. Monitoring of consolidated actual exposure and consolidated trading limit;
3. Consolidated margin call requirements; and
4. Obligation to provide prudential support for market participants authorized to conduct both physical transactions and virtual transactions.

This proposal is based on input from various stakeholder engagement initiatives for the Market Renewal Program (MRP).

Further information on MRP can be found on the IESO's Market Renewal webpage.

Background

Refer to MR-00453-R00.

Discussion

Additional rule provisions are required in order to implement a new process related to a consolidated actual exposure monitoring and margin call process for market participants authorized to conduct both physical and virtual transactions.

New proposed section 5D on this consolidated monitoring and margin call process mirror the existing actual exposure monitoring and margin call process for the existing physical transaction and proposed virtual transaction provisions in Chapter 2. At a high level, the consolidated actual exposure and margin call process is the aggregation of the physical transaction actual exposure and margin call process, and the virtual transaction actual exposure and margin call process.

The following amendments are proposed to codify the design elements of the consolidated actual exposure and margin call design:

New section 5D.1 – Purpose and Application:

- Insert section 5D.1.1 to specify that section 5D applies to a market participant that is authorized to conduct both physical and virtual transactions.

1. Calculation of Consolidated Actual Exposure and Consolidated Trading Limit:

- Section 5D.2.1: specify that the consolidated actual exposure (AE) of a market participant authorized to conduct both physical and virtual transactions shall be the sum of the market

participant's consolidated AE for physical transactions in accordance with section 5.5 (MR-00453-R00) and the AE for virtual transactions in accordance with section 5C.3 (MR-00453-R01).

Consolidated AE = AE physical + AE virtual

- Section 5D.2.2: specify that the consolidated trading limit (TL – in dollars) of a market participant authorized to conduct both physical and virtual transactions shall be the sum of the market participant's TL for physical transactions (section 5.3 – MR-00453-R00) and the TL for virtual transactions (section 5C.1.5 – MR-00453-R01).

Consolidated TL($) = TL($) physical + TL($) virtual

2. <u>Monitoring of Consolidated Actual Exposure and Consolidated Trading Limit:</u>

- Sections 5D.3.1, 5D.3.2: these sections establish thresholds for issuing consolidated margin call warnings and consolidated margin calls when actual exposure is 70% or greater, and is less than 100%, and when consolidated actual exposure exceeds a market participant's consolidated trading limit respectively.

- Section 5D.3.2 further specifies that when a consolidated margin call is sent to a market participant, that the IESO will reject subsequent market participant bids and offers for virtual transactions until the market participant satisfies the consolidated margin call.

- Section 5D.3.3: specify that the IESO shall reject a market participant's bids or offers in respect of virtual transactions via two additional screening methods specified in the Prudential detailed design if:

  o The absolute sum of a market participant's virtual transaction bids/offers in MWh exceed the market participant's daily trading limit for a trade day; or

  o The IESO's estimated daily cumulative dollar exposure exceeds the market participant's trading limit.

The above two conditions will be codified in the market rules in new chapter 7A (The Day-Ahead Market) as part of the Offers, Bids, and Data Inputs market rule amendments.

3. <u>Consolidated Margin Call Requirements:</u>

- Sections 5D.4.1 and 5D.4.2 obligate market participants to:

  - Make sufficient payment of a consolidated margin call to reduce the market participant's actual exposure to no more than the equivalent of 75% of the market participant's consolidated trading limit;

  - Pay all consolidated margin calls by 4:00 pm on the second business day following the issuance of such consolidated margin calls.

These obligations mirror margin call payment requirements for the existing physical transactions as well as the proposed virtual transactions sections.

- Section 5D.4.3 specifies how consolidated margin call payments will be applied, and mirrors the application for physical transaction, as well as virtual transaction margin calls.

- Section 5D.4.4 obligates the IESO to reinstate a market participant's ability to conduct virtual transactions upon receipt of a consolidated margin call payment.

4. Obligation to Provide Prudential Support for Market Participants Authorized to Conduct Both Physical Transactions and Virtual Transactions:

- Section 5D.5.1 specifies that market participants authorized to conduct both physical and virtual transactions must provide and maintain prudential support equal to the sum of market participants':
  - o Prudential support obligation for physical transactions as calculated in the physical transaction section of the market rules – sections 5.3 and 5.8 and in the forms of prudential support allowable under section 5.7; and
  - o Prudential support obligation for virtual transactions as calculated in the virtual transaction section of the market rules – sections 5C.1 and 5C.6 and in the form of a letter of credit as specified in section 5C.5.

Part 4 - Proposed Amendment

Chapter 2

5D.   Prudential Support for Market Participants Authorized to Conduct Both Physical Transactions and Virtual Transactions

5D.1   Purpose and Application

5D.1.1 This section 5D shall apply to a *market participant* that is authorized to conduct both *physical transactions* and *virtual transactions.*

5D.2   Calculation of Consolidated Actual Exposure and Consolidated Trading Limit

5D.2.1 The consolidated *actual exposure* of a *market participant* shall be the sum of the *market participant's actual exposure* for *physical transactions* in accordance with section 5.5 and the *actual exposure* for *virtual transactions* in accordance with section 5C.3.

5D.2.2 The consolidated *trading* limit of a *market participant* shall be the sum of the *market participant's trading limit* for *physical transactions* in accordance with section 5.3 and the *trading limit* for *virtual transactions* in accordance with section 5C.1.5.

5D.3   Monitoring of Consolidated Actual Exposure and Consolidated Trading Limit

5D.3.1 If at any time the consolidated *actual exposure* of a *market participant* is equal to or exceeds 70% and is less than 100% of the *market participant's* consolidated *trading limit,* the *IESO* shall inform the *market participant* of that fact. The *market participant* may, but is not required to, make a cash payment to be applied to reduce its consolidated

actual exposure or take other action to prevent its consolidated *actual exposure* from reaching its consolidated *trading limit*. No interest shall be paid on any such payment.

5D.3.2 If at any time the consolidated *actual exposure* of a *market participant* equals or exceeds the *market participant's* consolidated *trading limit*, the *IESO* shall issue to the *market participant* a consolidated *margin call*. Upon issuance of a consolidated *margin call*, the *IESO* shall reject subsequent *market participant bids* and *offers* for *virtual transactions* until the *market participant* satisfies the consolidated *margin call* in accordance with section 5D.4.1.

5D.3.3 The *IESO* shall reject a *market participant's bids* and *offers* in respect of a *virtual transaction,* in the circumstances provided by in sections 2.6.7.5 and 2.6.7.6 of Chapter 7A.

5D.4 Consolidated Margin Call Requirements

5D.4.1 A *market participant* must satisfy a consolidated *margin call* within the time prescribed in section 5D.4.2 by paying a portion of the amount payable or which will become payable in respect of the previous or current *energy market billing period*, in accordance with Chapter 9, in an amount sufficient to reduce the *market participant's* consolidated *actual exposure* to no more than the dollar equivalent of 75% of the *market participant's* consolidated *trading limit*. No interest shall be paid on such payments.

5D.4.2 The time within which a consolidated *margin call* must be satisfied under section 5D.4.1 shall be by 4:00 pm on the second *business day* following the date of the *margin call*.

5D.4.3 For the purposes of the *market rules,* a payment made pursuant to section 5D.4.1 shall be applied first to the amount outstanding with respect to the earliest *billing period* under the *market rules* and, if the amount outstanding under the *market rules* in respect of that *billing period* is less than the amount of the payment, then the excess shall be applied to the next earliest *billing period* in respect of which there is an amount outstanding under the *market rules* and so on until there is no excess.

5D.4.4 Upon receipt of a payment made in response to a consolidated *margin call* in accordance with this section 5D.4.1, the *IESO* shall reinstate the *market participant's* ability to conduct *virtual transactions.*

5D.5 Obligation to Provide Prudential Support for Market Participants Authorized to Conduct Both Physical Transactions and Virtual Transactions

5D.5.1 *Market participants* authorized to conduct both *physical transactions* and *virtual transactions* shall provide and maintain:

5D.5.1.1 *prudential support* for *physical transactions*, the value of which is not less than the *market participant's prudential support obligation* for *physical transactions* as calculated by the *IESO* in accordance with sections 5.3 and 5.8, and in the forms of *prudential support* for *physical transactions* specified in section 5.7; and

5D.5.1.2 *prudential support* for *virtual transactions*, the value of which is not less than the *market participant's prudential support obligation* for *virtual transactions*

as calculated by the *IESO* in accordance with sections 5C.1 and 5C.6, and in the forms of *prudential support* for *virtual transactions* specified in section 5C.5.

Part 5 – IESO Board Decision Rationale

Insert Text Here

Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00453-R03
Subject:	Market Renewal Program: Prudential Security
Title:	Market Renewal Program: Prudential Security and Default Levies
Nature of Proposal:	☒ Alteration ☒ Deletion ☐ Addition
Chapter:	2
Appendix:	
Sections:	8.1, 8.2, 8.4, 8.6
Sub-sections proposed for amending:	8.1.3 (deleted), 8.1.4, 8.2.3, 8.2.3.2 (deleted), 8.2.3.5 (deleted), 8.2.3.6 (deleted), 8.2.3.8 (deleted), 8.4.1, 8.4.2, 8.4.2.2 (deleted), 8.4.2.4, 8.4.2.5 (deleted), 8.4.2.6 (deleted), 8.4.2.7, 8.6.1.1

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	October 13, 2020
2.0	Draft for Stakeholder Review	December 4, 2020
3.0	Draft for Technical Panel Review	March 9, 2021

Approved Amendment Publication Date:

Approved Amendment Effective Date:

Part 3 - Explanation for Proposed Amendment

Provide a brief description of the following:

- 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 consequential amendments to the default levy provisions in the market rules to include defaulted payments in the day-ahead market.

This proposal is based on input from various stakeholder engagement initiatives for the Market Renewal Program (MRP).

Further information on MRP can be found on the [IESO's Market Renewal webpage](#).

Background

Refer to MR-00453-R00.

Discussion

One default levy will be issued for default amounts that result from either one of or a combination of physical transaction or virtual transaction trading activities.

The following consequential amendments are proposed to the default levy provisions in Chapter 2 of the market rules:

Power to Impose Default Levy:
- Section 8.1.3 - delete:
    - This existing section of the market rules specifies that the IESO shall impose separate default levies in respect of each such IESO-administered market in accordance with this Section 8 of the market rules;
    - The only IESO-administered markets for which default levies will be issued under section 8 of the market rules will be related to physical transactions in the real-time market and physical and virtual transactions in the day-ahead market. Default levies will be issued on a consolidated basis for the real-time market and day-ahead market. Existing section 8.1.3 is no longer required;
- Section 8.1.4 - expanded to include the day-ahead market.

Notice of First Default Levy:
- Section 8.2.3:
    - expanded to include the day-ahead market;
    - the administrative details specified on the notice of first default levy are proposed to be streamlined and amended based on the IESO's experience of issuing notices of first default levies to date – delete sections 8.2.3.2, 8.2.3.5, 8.2.3.6 and 8.2.3.8.

Notice of Second Default Levy:

- Sections 8.4.1, 8.4.2:
    - the administrative details specified on the first notice of default levy are proposed to be streamlined and amended based on the IESO's experience of issuing notices of second default levies to date, noting that second notices of default levies related to an instance of an event of default can continue for several months to a year.

Apportionment and Invoicing of Default Levy:

- Section 8.6.1.1:
    - Expanded to include amounts related to the day-ahead market.

Part 4 - Proposed Amendment

Chapter 2

8.   Default Levy

8.1   Power to Impose Default Levy

8.1.1   The *IESO* shall be entitled to recover, by means of the imposition of a *default levy* on *non-defaulting market participants,* in accordance with this section 8, the aggregate of any amounts owing to the *IESO* under the *market rules* which have not been paid in full by the *defaulting market participant* and the costs and expenses reasonably incurred by the *IESO* in investigating the default in payment, in realizing on any applicable *prudential support* and in implementing the *default levy*.

8.1.2   The imposition of a *default levy* pursuant to this section 8 shall in no way waive, excuse or relieve a *defaulting market participant* of its obligations under the *market rules* and shall be without prejudice to:

8.1.2.1   such rights or remedies which the *IESO* may otherwise have to recover all amounts owing by the *defaulting market participant*; and

8.1.2.2   the right of the *IESO* to take such other action, including but not limited to the issuance of a *suspension order,* as may be provided for in these *market rules* in respect of the *defaulting market participant's* default in payment.

8.1.3   [Intentionally left blank – section deleted]~~Where a *defaulting market participant* has defaulted in payment in respect of more than one *IESO-administered market,* the *IESO* shall impose separate *default levies* in respect of each such *IESO-administered market* in accordance with this section 8.~~

8.1.4   The provisions of this section 8 apply only to a default in payment by a *defaulting market participant* in the *real-time market* or the *day-ahead market*. Default in payment by a *defaulting market participant* in the *TR market* shall be addressed in accordance with the provisions of section 4 of Chapter 8.

8.2 Notice of First Default Levy

8.2.1 Where a *market participant* has failed to either remit or cause to be remitted to the *IESO settlement clearing account* the full amount due by that *market participant* by the close of *banking business* (of the bank at which the *IESO settlement clearing account* is held) on a *market participant payment date*:

8.2.1.1 [Intentionally left blank]

8.2.1.2 [Intentionally left blank]

8.2.1.3 the *IESO* may take such steps as may be permitted by section 6.14 of Chapter 9.

8.2.2 Where the *IESO* has issued a *suspension order* or *termination order* to a *defaulting market participant*, the *IESO* may:

8.2.2.1 issue a first *notice of default levy* in accordance with section 8.2.3; and

8.2.2.2 take such steps, if it has not already done so, as may be required to realize, in accordance with section 3 of Appendix 2.3, any *prudential support* held in respect of the *defaulting market participant* the right to realization of which is triggered by the default in payment at issue.

8.2.3 A first *notice of default* levy shall be issued to each *non-defaulting market participant* that participated in the *real-time market* or the *day ahead market* to which the default in payment by the *defaulting market participant* relates during the *billing period* to which such default relates and shall identify:

8.2.3.1 the name of the *defaulting market participant*;

8.2.3.2 ~~the *IESO-administered market* and the *billing period* in respect of which the default in payment by the *defaulting market participant* has occurred;~~[Intentionally left blank]

8.2.3.3 the *defaulting market participant's default amount,* calculated in accordance with section 8.3.1;

8.2.3.4 the amount of the first *default levy* calculated in accordance with section 8.3.2;

8.2.3.5 ~~the value of all *prudential support* held in respect of the *defaulting market participant* the right to realization of which is triggered by the default in payment at issue;~~[Intentionally left blank]

8.2.3.6 ~~the estimated amount of any second *default levy* that may have to be imposed pursuant to section 8.4 in the event of the inability by the *IESO* to realize all of the *prudential support* referred to in section 8.2.3.5 prior to the time noted in section 8.4.1~~[Intentionally left blank]

8.2.3.7 the *non-defaulting market participant's* share of the first *default levy*, calculated in accordance with section 8.6.1; and

8.2.3.8 ~~the non-defaulting market participant's share of the estimated amount of any second default levy referred to in section 8.2.3.6.~~ [Intentionally left blank]

8.2.4 The first *notice of default levy* shall be issued at least ten days prior to the date on which the *invoice* imposing the first *default levy* on *non-defaulting market participants* is issued by the *IESO* in accordance with section 8.6.2.

8.3 Calculation of Default Amount and First Default Levy

8.3.1 For the purposes of section 8.2.3.3, the *market participant's default amount* shall be the aggregate of:

8.3.1.1 the net *invoice* amount payable by the *defaulting market participant* for the *billing period* in respect of which payment has not been received within the time specified in section 8.2.2, exclusive of any amounts payable on account of financial penalties or damages; and

8.3.1.2 any *default interest* payable in respect of the amount referred to in section 8.3.1.1 that has accrued since the *market participant payment date* referred to in section 8.2.1 in accordance with section 6.14.3 of Chapter 9.

8.3.2 For the purposes of section 8.2.3.4, the amount of the first *default levy* shall be:

8.3.2.1 the aggregate of:

a. the *defaulting market participant's default amount*, calculated in accordance with section 8.3.1; and

b. any costs and expenses reasonably incurred to the date of issuance of the first *notice of default levy* by the *IESO* in investigating the default in payment to which the *default levy* relates, in realizing on any applicable *prudential support* held in respect of the *defaulting market participant* and in implementing the *default levy*;

8.3.2.2 less the aggregate unclaimed or undrawn dollar amount of all *prudential support* held in respect of the *defaulting market participant* the right to realization of which is triggered by the default in payment at issue.

8.3.3 The first *default levy* shall be apportioned amongst and *invoiced* to *non-defaulting market participants* in accordance with sections 8.6.1 and 8.6.2.

8.4 Notice of Second Default Levy

8.4.1 Unless the amount of the first *default levy* is equal to the *defaulting market participant's default amount* the *IESO* shall, ~~on the seventh business day following the issuance of invoices imposing the first default levy,~~ issue a second *notice of default levy* or further successive default levy notices in accordance with section 8.4.2.

8.4.2 The second *notice of default levy* or successive residual *default levy* notices shall be issued to each *non-defaulting market participant* on whom ~~a first~~the residual *default levy* ~~amount~~ period has been imposed and shall identify:

8.4.2.1 the name of the *defaulting market participant*;

8.4.2.2   the ~~IESO-administered market~~ and the ~~billing period~~ in respect of which the default in payment by the *defaulting market participant* has ~~occurred;~~[Intentionally left blank]

8.4.2.3   the *defaulting market participant's* residual *default amount,* calculated in accordance with section 8.5.1;

8.4.2.4   the aggregate amount of the first *default levy* or default levies;

8.4.2.5   ~~the amount of any~~ *prudential support* ~~held in respect of the~~ *defaulting market participant* ~~that has been realized~~[Intentionally left blank]~~;~~

8.4.2.6   ~~the amount of any~~ *prudential support* ~~held in respect of the~~ *defaulting market participant* ~~the right to realization of which is triggered by the default in payment at issue and that remains to be realized;~~[Intentionally left blank]

8.4.2.7   the amount of the ~~second~~ residual *default levy*, calculated in accordance with section 8.5.2; and

8.4.2.8   the *non-defaulting market participant's* share of the second *default levy*, calculated in accordance with section 8.6.1.

8.4.3   The second *notice of default levy* shall be issued at least ten days prior to the date on which the *invoice* imposing the second *default levy* on *non-defaulting market participants* is issued by the *IESO* in accordance with section 8.6.2.

8.5   Calculation of Residual Default Amount and Second Default Levy

8.5.1   For the purposes of section 8.4.2.3, the *defaulting market participant's* residual *default amount* shall be:

8.5.1.1   the aggregate of:

a.   the net *invoice* amount payable by the *defaulting market participant* for the *billing period* in respect of which payment has not been received as of the date of issuance of the second *notice of default levy,* exclusive of any amounts payable on account of financial penalties or damages; and

b.   any *default interest* payable in respect of the amount referred to in section 8.5.1.1(a) that has accrued since the date of issuance of the first *notice of default levy* in accordance with section 6.14.3 of Chapter 9;

8.5.1.2   less the aggregate of:

a.   the amount of the first *default levy*; and

b.   any amount that has been recovered by the *IESO* since the date of issuance of the first *notice of default levy* under any *prudential support* held in respect of the *defaulting market participant.*

8.5.2   For the purposes of section 8.4.2.7, the amount of the second *default levy* shall be the aggregate of:

8.5.2.1 the *defaulting market participant's* residual *default amount*, calculated in accordance with section 8.5.1; and

8.5.2.2 any costs and expenses reasonably incurred by the *IESO* in investigating the default in payment to which the *default levy* relates, in realizing any applicable *prudential support* and in implementing the *default levy* since the date on which the first *default levy* was calculated.

8.5.3 The second *default levy* shall be apportioned and *invoiced* to *non-defaulting market participants* in accordance with sections 8.6.1 and 8.6.2.

8.6 Apportionment and Invoicing of Default Levy

8.6.1 For the purposes of sections 8.2.3.7 and 8.4.2.8, the amount of a *default levy* shall be apportioned amongst all *non-defaulting market participants* to whom a *notice of default levy* has been issued in accordance with sections 8.2.3 or 8.4.2 by allocating to each *non-defaulting market participant* a share of the *default levy* calculated as follows:

8.6.1.1 in the case of a *default levy* imposed in respect of a default in the *real-time market* or the *day ahead market*, the share allocated to each *non-defaulting market participant* shall be determined on the basis of the following formula:

[*default amount* x (absolute value of the *non-defaulting market participant's* net *invoice* amount, exclusive of any amounts payable on account of financial penalties or damages, in the *real-time market* or the *day-ahead market* for the ~~real-time market~~ *billing period* to which the default in payment by the *defaulting market participant* relates)]	divided by	net transaction dollar amount

Where the *net transaction dollar amount* is:

∑ the absolute value, in dollars, of each *market participant's* net *invoice* amount, for the *real-time market* or *the day-ahead market* *billing period* to which the default in payment by the *defaulting market participant* relates	Minus	the absolute value, in dollars, of the *defaulting market participant's* net *invoice* amount for such *real-time market* or *day-ahead market* *billing period*;

or

8.6.1.2 [Intentionally left blank – section deleted]

8.6.2 Subject to section 8.6.3, a *non-defaulting market participant's* share of a *default levy* shall be included in or with the first *invoice* scheduled to be issued to the *non-defaulting market participant* pursuant to Chapter 9 following the expiry of the time noted in section 8.2.4 or 8.4.3, as the case may be, in respect of each *IESO-administered market* to which the *default levy* relates.

8.6.3 Where, for any reason, no *invoice* is scheduled to be issued to a *non-defaulting market participant* to whom a second *notice of default levy* has been issued under section 8.4.2, the *IESO* shall issue an *invoice* to that *non-defaulting market participant* comprising the amount of that *non-defaulting market participant's* share of the second *default levy.* Any such *non-defaulting market participant* shall pay to the *IESO* the *invoice* amount on the second *business day* following receipt of the *invoice*.

8.7 Allocation of Default Levy

8.7.1 The *IESO* shall allocate amounts received from *non-defaulting market participants* in respect of a *default levy*:

8.7.1.1 first, to repay any short-term funds borrowed by the *IESO* pursuant to section 6.14.4 of Chapter 9 on account of the *defaulting market participant's* default in payment; and

8.7.1.2 [Intentionally left blank]

8.7.1.3 second, to the payment of amounts owed by the *defaulting market participant* to the *IESO* on account of the *IESO administration charge.*

8.7.2 Amounts received from *non-defaulting market participants* in respect of a *default levy* to cover the reasonable costs and expenses referred to in sections 8.3.2.1 and 8.5.2.2 shall be used to offset the *IESO administration charge.*

8.8 Other Recovery of Default Amounts

8.8.1 Notwithstanding the imposition of a *default levy*, the *IESO* shall take all reasonable steps to recover from the *defaulting market participant*, including by means of the realization of any *prudential support* held in respect of a *defaulting market participant* that has not been realized as at the date of calculation of a second *default levy*, all amounts owing to the *IESO* under the *market rules*. The *IESO* may, but shall not be obliged to, follow the dispute resolution process set forth in section 2 of Chapter 3 for the purpose of obtaining such recovery.

8.8.2 Subject to section 8.8.3, any full or partial recovery made by the *IESO* pursuant to section 8.8.1 shall be distributed to each *non-defaulting market participant* that remitted payment to the *IESO* on account of a *default levy* on a prorated basis according to, and in an amount that does not exceed, the amount so remitted by the *non-defaulting market participant.* Where the *non-defaulting market participant* is, at the relevant time, still a *market participant*, any such amount shall appear as a credit on the next *invoice* scheduled to be issued to that *non-defaulting market participant* under Chapter 9. Where the *non-defaulting market participant* is no longer a *market participant* at the relevant time, any such amount shall be paid to the former *non-defaulting market participant* in such manner as the *IESO* determines appropriate.

8.8.3   In the event that the *IESO* cannot, after taking all reasonable steps to do so, locate a former *non-defaulting market participant* that has remitted payment to the *IESO* on account of a *default levy*, any amount that would otherwise be distributed to such former *non-defaulting market participant* under section 8.8.2 shall:

    8.8.3.1   be allocated and distributed to other *non-defaulting market participants* in the manner described in section 8.8.2; or

    8.8.3.2   where other *non-defaulting market participants* have already been reimbursed in respect of a *default levy* and are therefore not entitled to payment of any amounts under section 8.8.2, be used to offset the *IESO administration charge.*

8.8.4   Any costs and expenses reasonably incurred by the *IESO* in recovering amounts from a *defaulting market participant* under section 8.8.1 that have not been included in a *default levy* under section 8.3.2.1(b) or 8.5.2.2 shall be included in the *IESO administration charge.*

Part 5 – IESO Board Decision Rationale

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Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00453-R04
Subject:	Market Renewal Program: Prudential Security
Title:	Market Renewal Program: Prudential Security: Additional Provisions Regarding Prudential Support
Nature of Proposal:	☒ Alteration ☐ Deletion ☐ Addition
Chapter:	2
Appendix:	2.3
Sections:	1, 2, 3
Sub-sections proposed for amending:	1.1, 1.2, 1.2.1, 1.3, 1.4, 1.5, 1.6, 1.7, 1.7.3, 1.9, 2.1, 2.1.1, 2.1.2, 3.1, 3.4

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	October 13, 2020
2.0	Draft for Stakeholder Review	December 4, 2020
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Part 3 - Explanation for Proposed Amendment

Provide a brief description of the following:

- 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 consequential amendments to Appendix 2.3 – Prudential Support to distinguish between those existing provisions which apply to both physical transactions and virtual transactions, and those which apply to physical transactions only.

This proposal is based on input from various stakeholder engagement initiatives for the Market Renewal Program (MRP).

Further information on MRP can be found on the [IESO's Market Renewal webpage](#).

Background

Refer to MR-00453-R00.

Discussion

Consequential to the amendments proposed in MR-00453-R00-R03, there is a need to amend Appendix 2.3 of Chapter 2 in order to distinguish between those existing provisions which apply to both physical transactions and virtual transactions, and those which apply to physical transactions only.

The following amendment are proposed:

- Amend section 1.1 (IESO notification via a 'Schedule A' specifying the amount of collateral that must be posted by a market participant) and 1.2 to ensure they apply both to the day-ahead market and the real-time market.

- Section 1.2.1 - this section specifies the process whereby a market participant specifies to the IESO how it intends to satisfy their prudential support obligation (e.g. via a letter of credit). Amend section 1.2.1 to refer to satisfying prudential support obligations in respect of either or both physical transactions or virtual transactions.

- Amend sections 1.3 (credit ratings), 1.4 (third party guarantees) and 1.5 (good payment history) by specifying these sections only apply to physical transactions. No reductions for credit ratings or good payment history are allowed for virtual transactions. Similarly, third party guarantees are not an allowable form or prudential support for virtual transactions.

- Amend section 1.6 (prudential support by way of letter of credit) to expand this section to apply to letters of credit provided as prudential support to virtual transactions - include a reference to section 5C.5.2.1.

- Amend sections 1.7, 1.7.3 (prudential support by way of cash or treasury bills) to specify this section is only applicable for physical transactions.

- Amend section 1.9 (dispute resolution) to ensure it applies to both the day-ahead market and the real-time market.

- Amend sections 2.1 to specify that the pledge of prudential support in the form of cash or treasury bills is applicable as part of the market participant's prudential support obligation for physical transactions in the real-time or day-ahead market.

- Amend sections 2.1.1 and 2.1.2 to be inclusive of the day-ahead market.

- Amend sections 3.1 (exercise of rights) and 3.4 (payment of expenses) to ensure it applies to both the day-ahead market and the real-time market.

Part 4 - Proposed Amendment

Appendix 2.3 – Prudential Support

1. Default Levy

1.1 Determination of Prudential Support Obligations

Prior to participating in the *real-time markets or the day-ahead market*, the *IESO* shall deliver to each *market participant* a schedule, in the form set forth in the applicable *market manual,* setting out the determination by the *IESO* of that *market participant's prudential support obligations*, which shall be completed by the *IESO* on the basis of the determinations referred to in Section 5 of Chapter 2. Such schedule shall be effective until amended and replaced in accordance with this Appendix.

1.2 Provision of Prudential Support

Prior to participating in the *real-time markets or day-ahead market*, each market participant shall deliver to the *IESO*:

1.2.1 a schedule, in the form set forth in the applicable *market manuals* completed by the *market participant* setting out the *prudential support* with which the *market participant* has elected to satisfy its *prudential support obligation* in respect of either or both *physical transactions* or *virtual transactions* as set forth in the schedule delivered to it by the *IESO* referred to in section 1.1; and

1.2.2 the *prudential support* as set out in that schedule.

In the event that the sum of all *prudential support* provided by the *market participant* to the *IESO* is a greater amount than required by the *market rules,* the *IESO* shall, upon written request by the *market participant*, return (or direct the

custodian to return) to the *market participant* an amount equal to the difference between the value of all *prudential support* then held by or on behalf of the *IESO* and the *prudential support obligation* of the *market participant* at that time. The *IESO* shall return such amount within five *business days* of the receipt of the request for the return of the amount from the *market participant*. In the event the *market participant* has posted one or more different types of *prudential support*, the *IESO* shall return the type of *prudential support as* directed by the *market participant.* Upon the return by the *IESO* to the *market participant* of the amount of any *prudential support*, any security interest or lien granted on such *prudential support* will be released immediately and, to the extent possible, without any further action by either party.

1.3 Reduction of Prudential Support Obligation for Physical Transactions for Credit Rating

Where the *market participant's prudential support obligation* for *physical transactions* reflects a reduction by reason of the *market participant's* credit rating from a major bond rating agency identified in the list of such agencies published by the *IESO*, the *market participant* covenants and agrees to advise the *IESO* in writing immediately upon the *market participant* becoming aware of either a change in or loss of the then current credit rating or the decision of the bond rating agency to place the *market participant* on "credit watch status" or equivalent. Where, as a result of either any such change or loss in the then current rating or the placing of the *market participant* on "credit watch status", the *market participant* is no longer entitled under the *market rules* to the same reduction by way of credit rating, the *IESO* shall deliver to the *market participant* an amended schedule setting out the *market participant's* revised *prudential support obligation* for *physical transactions*.

1.4 Prudential Support for Physical Transactions by way of a Third Party Guarantee

Prudential support for *physical transactions* in the form of a guarantee provided by a third party pursuant to section 5.7.2.2 or 5.7.2.4 of Chapter 2 shall provide for payment by the guarantor to the *IESO* on demand up to the amount stated in the guarantee. The only conditions on the ability of the *IESO* to draw on the guarantee shall be the delivery of copies of an unpaid invoice previously issued to the *market participant* and a certificate of an officer of the *IESO* that a specified amount is owing by the *market participant* to the *IESO* and that, in accordance with the provisions of the *market rules*, the *IESO* is entitled to payment of that specified amount as of the date of delivery of the certificate. Where the *market participant's prudential support* includes a guarantee provided by a third party that has a credit rating from a major bond rating agency identified in the list of such agencies published by the *IESO*, the *market participant* covenants and agrees to advise the *IESO* in writing immediately upon the *market participant* becoming aware of a change in or loss of the then current credit rating issued to the guarantor. Where as a result of the loss of such credit rating, the *market participant* is no longer entitled to meet its *prudential support obligation* for *physical transactions* in whole or in part through the provision of such a guarantee, the market participant must provide

alternative *prudential support* within the time frame mandated in section 5.2 of Chapter 2.

1.5 Reduction of Prudential Support Obligation for Physical Transactions for Payment History

Where the *market participant*'s *prudential support obligation* for *physical transactions* reflects a reduction by reason of evidence of the *market participant's* good payment history determined in accordance with sections 5.8.4 or 5.8.5 of Chapter 2 and, for any reason, the *market participant* is no longer entitled under the *market rules* to the same amount of reduction by way of good payment history, the *IESO* shall deliver to the *market participant* an amended schedule setting out the *market participant*'s revised prudential support obligation for *physical transactions*.

1.6 Prudential Support by way of Letter of Credit

Where a portion of the *market participant*'s *prudential support* is in the form of a letter of credit pursuant to sections 5.7.2.1 or 5C.5.2.1 of Chapter 2, the following provisions shall apply:

1.6.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;

1.6.2 the *IESO* shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, partial draws on any letter of credit shall not be prohibited and the letter of credit or the aggregate amount of all letters of credit shall be in the face amount of at least the amount specified in its then current schedule;

1.6.3 the only conditions on the ability of the *IESO* to draw on the letter of credit shall be the occurrence of an *event of default* by or in respect of the *market participant* and a certificate of an officer of the *IESO* that the *IESO* is entitled to draw on the letter of credit in accordance with the provisions of the *market rules* in the amount specified in the certificate as at the date of delivery of the certificate;

1.6.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the *IESO* at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. In either case it is the responsibility of the *market participant* to maintain the requisite amount of *prudential support*. Where the *IESO* is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the *market participant* shall arrange for and deliver alternative *prudential support* within the time frame mandated by the *market rules* so as to enable the *market participant* to be in compliance with the *market rules*; and

1.6.5 by including a letter of credit as part of its *prudential support*, the *market participant* represents and warrants to the *IESO* that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the *market participant*.

1.7 Prudential Support by way of Cash or Treasury Bills

Where any portion of the market participant's prudential support for physical transactions is in the form of treasury bills pursuant to section 5.7.2.3 of Chapter 2, the provision of such prudential support shall be reflected in a written instrument that is acceptable at the sole discretion of the IESO and the following provisions shall apply:

1.7.1 any such treasury bills shall be issued by the Government of Canada and for *IESO* purposes shall be valued at their current market value from time to time less two (2%) percent to take into account the potential eroding effects of interest rate increases on the value of such treasury bills;

1.7.2 the *IESO* shall retain the services of a custodian which shall retain the treasury bills as agent for the *IESO* and not the *market participant*; and

1.7.3 any interest income paid by the treasury bill shall be apportioned to the benefit of the *market participant's prudential support for physical transactions*.

The *IESO* shall have no obligation to pay interest on the cash proceeds from the maturity of a treasury bill, or on any cash deposit held by the *IESO* in accordance with section 5.7.2.5 of Chapter 2.

1.8 Replacement Schedules

The *IESO* and the *market participant* may or, where required to enable the *market participant* to be in compliance with the *market rules*, shall from time to time deliver to one another one or more additional schedules, which schedules shall be in the form approved by the *IESO* from time to time. Where the *IESO* delivers to the *market participant* an additional schedule, each such schedule shall replace the preceding schedule, and shall be effective from the date of its delivery to the *market participant* for all purposes thereafter until such time as a subsequent amended schedule is delivered by the *IESO* to the *market participant*. Where any such amended schedule shows an increase in the *market participant's prudential support obligation* relative to the preceding schedule or requires the provision of alternative *prudential support*, the *market participant* shall deliver such additional or alternative *prudential support* as may be required so as to enable the *market participant* to be in compliance with the *market rules*. Where the *market participant* delivers an amended schedule, modified to reflect additional or alternative forms of *prudential support*, such amended schedule, provided that it is accompanied by such additional or alternative *prudential support*, shall replace the preceding schedule and shall be binding on the *market participant* for all purposes thereafter until such time as a subsequent amended schedule is delivered to the *IESO* by the *market participant*.

1.9 Dispute Resolution

If the *market participant* disagrees with the determination by the *IESO* of any of the amounts of *prudential support obligations* set out on a schedule and such dispute cannot be resolved by the *market participant* and the *IESO*, then the *market participant* shall submit the matter to dispute resolution under section 2 of Chapter

3. Notwithstanding the initiation of the dispute resolution process, the *market participant* shall provide such additional *prudential support* as may be required in order to continue participating in the *real–time markets or day-ahead market* based on the determination by the *IESO* until the matter has been resolved.

2. Pledge of Prudential Support in the form of Cash or Treasury Bills

2.1 Pledge

Prudential support in the form of cash or treasury bills provided as part of the market participant's prudential support obligation for *physical transactions* in respect of the *market participant's* participation in the *real-time markets and day-ahead market* shall be held by or on behalf of the *IESO* (together with all accretions thereto, all income therefrom and proceeds thereof) and the *market participant* shall assign to the *IESO* all of its present and future right, title and interest in and to such cash and treasury bills as general and continuing collateral security and as a pledge to secure:

2.1.1 subject to section 13 of Chapter 1, all indebtedness, obligations and liabilities of any kind, now or hereafter existing, direct or indirect, absolute or contingent, joint or several, of the *market participant* to the *IESO* in respect of the *market participant*'s participation in the *real-time markets and the day-ahead market*; and

2.1.2 all reasonable costs, charges, expenses and fees (including, without limiting the generality of the foregoing, reasonable legal fees on a solicitor and client basis) incurred by or on behalf of the *IESO*, in the enforcement of its rights under the *market rules* in respect of the participation by the *market participant* in the *real-time markets and the day-ahead market*.

3. Exercise of Rights and Remedies to Prudential Support

3.1 Exercise of Rights

Upon the occurrence of an *event of default*, the *IESO* shall be entitled to exercise its rights and remedies as set out in the *market rules,* or provided for at law or in equity. Without limiting the generality of the foregoing, such rights and remedies shall, in respect of the *prudential support* provided by the *market participant*, include setting-off and applying any and all *prudential support* held in the form of cash or treasury bills or proceeds of either cash or treasury bills against the indebtedness, obligations and liabilities of the *market participant* to the *IESO* in respect of the participation by the *market participant* in the *real-time markets and day ahead market*. When the *IESO* is reasonably certain that it will be issuing a first *notice of default levy* it shall *publish* the name of the *defaulting market participant.*

3.2 Remedies Cumulative

Each of the remedies available to the *IESO* under the *market rules* or at law or in equity is intended to be a separate remedy and in no way is a limitation on or substitution for any one or more of the other remedies otherwise available to the *IESO*. The rights and remedies expressly specified in the *market rules* or at law or in equity are cumulative and not exclusive. The *IESO* may in its sole discretion

exercise any and all rights, powers, remedies and recourses available under the *market rules* or under any document comprising the *prudential support* provided by the *market participant* or any other remedy available to the *IESO* howsoever arising, and whether at law or in equity, and such rights, powers and remedies and recourses may be exercised concurrently or individually without the necessity of any election.

3.3   Application of Prudential Support against Actual Exposure

Except as may be otherwise provided in the *market rules,* all moneys received in respect of the realization of the *prudential support* provided by the *market participant* may, notwithstanding any appropriation by the *market participant* or any other person, be appropriated to such parts of the *market participant*'s *actual exposure or its other obligations,* any interest thereon owing pursuant to the *market rules* or the costs, charges, expenses and fees referred to in section 3.4 and in such order as the *IESO* sees fit, and the *IESO* shall have the right to change any appropriation at any time.

3.4   Payment of Expenses

The *market participant* agrees to pay to the *IESO* forthwith on demand all reasonable costs, charges, expenses and fees (including, without limiting the generality of the foregoing, legal fees on a solicitor and client basis) of or incurred by or on behalf of the *IESO* in the realization, recovery or enforcement of the *prudential support* provided by the *market participant* and enforcement of the rights and remedies of the *IESO* under the *market rules* or at law or in equity in respect of the participation by the *market participant* in the *real-time markets* and the *day-ahead market*.

3.5   Deficiency

If the proceeds of the realization of any *prudential support* provided by the *market participant* are insufficient to pay all of the *actual exposure* of the *market participant* or its other obligations to the *IESO*, the *market participant* shall forthwith pay or cause to be paid to the *IESO* any such deficiency. The *IESO* shall provide a calculation of any such deficiency to the *market participant*.

Part 5 – IESO Board Decision Rationale

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