PROCEDURE

Market Manual 5: Settlements

Part 5.4: Prudential Support

Issue 31.0

This procedure describes the activities to be undertaken by the *IESO* and *Market Participants* to manage the *prudential support* required to participate in the *real-time market*.

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This *market manual* may contain a summary of a particular *market rule*. Where provided, the summary has been used because of the length of the *market rule* itself. The reader should be aware, however, that where a *market rule* is applicable, the obligation that needs to be met is as stated in the "Market Rules". To the extent of any discrepancy or inconsistency between the provisions of a particular *market rule* and the summary, the provision of the *market rule* shall govern.

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27.0	Updated for Baseline 35.0 To reflect: DR Prudential Support Obligations	March 2, 2016
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31.0	Updated for Baseline 44.1	December 2, 2020

Related Documents

Document ID	Document Title

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List of Tables

Table of Changes

Reference (Paragraph and Section)	Description of Change
1.1	Deleted hyperlink to training Guide to Prudentials at the IESO and reference to IMO_LST_0001. Updated reference to MM1.5 from MM1.1
1.3.1	Deleted hyperlink to training Guide to Prudentials at the IESO and reference to IMO_LST_0001
	In addition, when published the manual will be updated to meet accessibility requirements pursuant to the Accessibility for Ontarians with Disabilities Act.

Market Manuals

The *market manuals* consolidate the market procedures and associated forms, standards, and policies that define certain elements relating to the operation of the *IESO-administered markets*. Market procedures provide more detailed descriptions of the requirements for various activities than is specified in the "Market Rules". Where there is a discrepancy between the requirements in a document within a *market manual* and the "Market Rules", the "Market Rules" shall prevail. Standards and policies appended to, or referenced in, these procedures provide a supporting framework.

Market Procedures

The Settlements Manual is Volume 5 of the *market manuals*, where this document forms “Part 5.4: Prudential Support.”

A list of the other component parts of the Settlements Manual is provided in “Part 5.0: Settlements Overview”, in Section 2, “About This Manual”.

Structure of External Procedures

Each external procedure is composed of the following sections:

1. **“Introduction”**, which contains general information about the procedure, including an overview, a description of the purpose and scope of the procedure, and information about roles and responsibilities of the parties involved in the procedure.
2. **“Procedural Work Flow”**, which contains a graphical representation of the steps and flow of information within the procedure.
3. **“Procedural Steps”**, which contains a table that describes each step and provides other details related to each step.
4. **“Appendices”**, which may include such items as forms, standards, policies, and agreements.

Conventions

The *market manual* standard conventions are defined in the "Market Manual Overview" document.

– End of Section –

1. Introduction

1.1 Purpose

This procedure describes the activities undertaken by the *IESO* and *market participants* (or *applicant*s wishing to become authorized as *market participants*)[1] in relation to the initial, and ongoing, assessment of a *market participant's prudential support obligation* (PSO) by the *IESO* based on the *market participant's* expected and actual market activities. It also addresses the posting of *prudential support* by *market participants* to satisfy these obligations and the actions undertaken by the *IESO* when this is not done.

The *IESO* is responsible for ensuring that *prudential support* is posted by all *market participants* to satisfy their *prudential support obligation* and, therefore, mitigate the impact of an *event of default* by a *market participant.* This process involves the following activities:

- the initial assessment of the *prudential support obligation* for an *applicant* wishing to become authorized as a *market participant*, based on their estimated trading activity in the *real-time market*;
- the regular review of a *market participant's trading limit* by the *market participant* (with the exception of *market participants* under the *no margin call option)*;
- the regular review of a *market participant's trading limit*, *default protection amount* (DPA) and *prudential support obligation* by the *IESO* prior to the start of a new *billing period* as applicable;
- the annual review of each price basis used in the calculation of a *metered market participant's minimum trading limit* and *default protection amount*, and modification of the applicable price basis if it has increased or decreased by 15% or more from the price basis used by the *IESO*;
- the daily monitoring of the *market participant's actual exposure* in the *real-time market* against their *trading limit* (with the exception of *market participants* under the *no margin call option)*;
- the posting of *prudential support* by *market participants* to meet their current *prudential support obligation*; and
- the review of the *prudential support* requirements set out in Chapter 2 of the *market rules* at least once every three years, with the first review to be completed no later than September 30, 2010.

The initial assessment of the *prudential support obligation* for an *applicant* wishing to become authorized as a *market participant* (and the subsequent posting of initial *prudential support* by the *applicant*) is undertaken as part of the Participant Authorization process. (See the Market Manual 1: "Connecting to Ontario's Power System, Part 1.5 Market Registration Procedures" for more information on this process.) However, the calculation of the initial *prudential support obligation* that occurs as part of this authorization process is undertaken in accordance with the process for establishing a *prudential support obligation* described in this procedure.

Elements of the assessment of a *market participant's prudential support obligation* are an internal process undertaken by the *IESO*, in accordance with the obligations established in the *market rules*.

[1] Unless otherwise stated, references to *market participants* in this procedure should also be read as including applicants wishing to become authorized as a *market participant*.

However, details on this process are documented in this procedure to provide background information and context for the processes that are addressed in this procedure.

1.2 Scope

This procedure is intended to provide *market participants* with a summary of the steps and interfaces between *market participants* and the *IESO* with regard to managing *prudential support*. The procedural work flows and steps described in this document serve as a roadmap for *applicant*s and the *IESO*, and reflect the requirements set out within the *market rules* and applicable *IESO* policies and standards.

This procedure relates only to the *real-time market*. In addition, this procedure does not address the process of posting *transmission rights* (TR) market deposits, which are a prerequisite for participating in a *TR auction*. See Market Manual 4: Market Operations, "Part 4.4 – Transmission Rights Auction" for more details on this process.

The overview information in Section 1.3 is provided for context purposes only, highlighting the main actions that comprise the procedure, as set out in Section 2.

1.3 Overview

1.3.1 Assessment of Prudential Support Obligation for the Physical Markets

The *IESO* undertakes an assessment of the *prudential support obligation* for each *applicant* wishing to become authorized as a *market participant* during the Participant Authorization process. The *IESO* assesses this *prudential support obligation* based on information provided by the *applicant* about its expected trading activity in the *real-time market* via the IESO's online Appian workflow tool.

The *IESO* may reassess this initial *prudential support obligation* for a number of reasons, including (Chapter 2, section 5.3.11 of the *market rules*):

- prior to the start of each *energy market billing period*;
- within two *business days* after a *market participant's actual exposure* exceeds the *trading* limit for that *market participant* (with the exception of *market participants* under the *no margin call option);*
- 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 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;*
- when the *IESO* has adjusted a *market participant's minimum trading limit* (Chapter 2, section 5.3.4.3 of the *market rules*); and
- when the *IESO* has adjusted its price basis under Chapter 2, section 5.3.10B of the *market rules*).

Market participants must submit an initial *self-assessed trading limit* (with the exception of *market participants* under the *no margin call option)* as part of the authorization process. *Market participants* should review this *self-assessed trading limit* prior to the start of each *billing period* and submit a revised *self-assessed trading limit*, as necessary at least seven *business day*s prior to the start of the next *billing period* (Chapter 2, section 5.3.2 of the *market rules*). Once a *market participant's trading* *limit* has been established (Chapter 2, Section 5.3.7 of the *market rules*), that *market participant* is not permitted to change or request a change to that *trading limit* during the upcoming *energy market billing period*. If a revision is not required, the previously submitted *self-assessed trading limit* is treated as a standing *self-assessed trading limit* by the *IESO* (Chapter 2, section 5.3.3 of the *market rules*).

The *IESO* undertakes a three-stage process in assessing the *prudential support obligation* that a *market participant* must satisfy. This consists of:

- assessing a minimum dollar *trading limit* (with the exception of *market participants* under the *no margin call option)* and dollar *default protection amount* for the *market participant* as set out in Appendix B;
- reviewing this *minimum trading limit* against the *self-assessed trading limit* submitted by the *market participant* (or the *trading limit* applied to the *market participant* during the previous *billing period*, if the *market participant* has not sought to revise its *trading limit*), selecting the greater of the two *trading limit* amounts and establishing the *maximum net exposure* for the *market participant* as the sum of the selected *trading limit* and the *default protection amount* (with the exception of *market participants* under the *no margin call option)*; and
- calculating the *market participant's prudential support obligation* as being equal to the *market participant's maximum net exposure*, unless reduced, where appropriate to reflect the *market participant's* credit rating , the *market participant's* good payment history for the purchase of electricity in Ontario, or the LDC prudential credit.

For prudential calculation purposes, the *IESO* shall calculate a *metered market participant's minimum trading limit* and *default protection amount* using *energy* prices based on the *Ontario Energy Board's* ("*OEB's*") price forecasts for electricity in Ontario for use in setting retail prices under its regulated price plan ("RPP"). The price basis for Local Distribution Companies will be equal to the lower tier RPCMT1 as reported by the *OEB* for its tiered RPP prices. The price basis for all other *market participants* will be equal to the average RPP supply cost (RPA) adjusted for any Class A global adjustment factors as forecasted by the *OEB*. The *IESO* shall annually review each price basis referred to in Chapter 2, section 5.3.10A of the *market rules*, and shall modify the applicable price basis if it has increased or decreased by 15% or more from the price basis used by the *IESO*.

Please refer to the "Guide to Prudentials at the IESO" document for examples on how prudentials are calculated.

The *IESO* may reduce the *market participant's prudential support obligation* from the full *maximum net exposure* amount, depending on the credit rating of the *market participant*, good payment history (if applicable), or the LDC prudential credit in accordance with Section 5 of Chapter 2 of the "Market Rules[2]." The IESO currently may accept Standard & Poors, Moody's and DBRS credit ratings.

If a *market participant's maximum net exposure*, as calculated by the *IESO* is zero or negative, the *market participant* is not required to provide any form of *prudential support* to the *IESO*. If a *market participant's maximum net exposure*, as calculated by the *IESO* is positive, and the allowable prudential reductions do not reduce the *market participant's prudential support obligation* to zero, the *market participant* must provide *prudential support* to the *IESO*.

The calculated *default protection amount, maximum net exposure, trading limit* and *prudential support obligation* (where applicable) are communicated by the *IESO* and sent to the *market participant*.

[2] Where a credit rating is available, this will take precedence over any good payment history that may be available.

Regardless of the activity that initiates the assessment of the *prudential support obligation* for a *market participant*, the *prudential support* posted by a *market participant* to satisfy this obligation must take one of the following forms (Chapter 2, section 5.7.2 of the *market rules*):

- a guarantee or irrevocable commercial letter of credit, which in both bases 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 an *IESO* approved credit rating agency; or
  - (b) a credit union licensed by the Financial Services Commission of Ontario with a minimum long-term credit rating of "A" from an *IESO* approved credit rating agency;
- 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 an *IESO* approved creditrating agency;
- 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; and/or
- subject to Section 5.7.4 and 5.7.4A of Chapter 2 of the "Market Rules," a guarantee in a form acceptable to the *IESO* provided by a person that is a rated *affiliate* of the *market participant* and has a credit rating from an *IESO* approved creditrating agency;

Section 5.7.4 and 5.7.4A of Chapter 2 of the "Market Rules" states that the *IESO* shall not accept a guarantee from a person referred to in Section 5.7.2.4 where the value of the guarantee exceeds, or would bring the total value of all guarantees provided by that person to an amount that exceeds, the greater of the allowable reduction amounts referred to in the tables in Sections 5.7.4 and 5.7.4A. This section is intended to apply to guarantees provided to the *IESO* only.

1.3.2 Daily Monitoring of Prudential Support

Actual Exposure of a Market Participant

The *IESO* verifies that each *market participant* has provided sufficient levels of *prudential support* to cover their financial trading activity in the *real-time market*. The *IESO* calculates the *market participant's* estimated *actual net exposure*) and compares it to the *trading limit* (with the exception of a *market participant* who has elected the *no-margin call option*) established for the *market participant*.

ESTIMATED ACTUAL NET EXPOSURE

Overview:

Each market participant can view their own daily estimated actual net exposure by logging into the IESO's online Market Participant Prudential System.

Monitoring of estimate *actual net exposure* against the *trading limit* is done on a daily basis.

The estimate *actual net exposure* calculation begins with estimates of charges for both dispatchable and non-dispatchable *market participants*. The estimated *actual net exposure* calculation will also take into account an adjustment for both dispatchable and non-dispatchable *market participants*, for an estimated level of *physical bilateral contracts* based on previous participant activity.

Table 1-1 summarizes the resulting action taken by the *IESO* based on the results of this comparison between a *market participant's trading limit* and their *estimate actual net exposure* (with the exception of *market participants* under the *No margin call option).* While a *market participant* may only revise its self-assessed *trading limit* as set out in Section 1.3.1, a *market participant* may reduce the level of *its estimate actual net exposure* at any time through making a pre-payment to the *IESO*, via logging in and sending the IESO an electronic Notification of Prepayment using the Market Participant Prudential System.

Table 1–1: Trading Limit and Actual Exposure comparisons

Trading Limit – AE comparison	Action
Actual exposure < 70 % *trading limit*	None
70% *trading limit* <= AE < 100 % *trading limit*	*IESO* issues a notice of *margin call* warning (with the exception of *market participants* under the *no margin call option)*
Actual exposure >= 100 % *trading limit*	A *margin call* is issued to the *market participant* (with the exception of *market participants* under the *no margin call option)*

Where a *market participant's estimate actual net exposure* reaches the level of 70% of their *trading limit* but remains less than 100% of their *trading limit*, as identified in Table 1-1, the *IESO* issues a "Notice of Margin Call Warning" to the *market participant* (with the exception of *market participants* under the *no margin call option).* The *market participant* may make a cash payment to reduce a portion of any amounts payable to the *IESO* at this time to reduce their *estimate actual net exposure*, or take other appropriate action to ensure that *its estimate actual net exposure* does not reach its *trading limit*[3] (Chapter 2, section 5.4.1 of the *market rules*).

Where a *market participant's estimate actual net exposure* equals or exceeds its *trading limit*, as identified in table 1-1, the *IESO* issues a *margin call* to the *market participant* (with the exception of *market participants* under the *no margin call option).* The *market participant* is required to satisfy this *margin call* through paying a portion of the amount payable by cash sufficient to reduce the *market participant's estimate actual net exposure* to no more than 75% of the *market participant's trading limit* (Chapter 2, section 5.6.1 and 5.6.2 of the *market rules*).

If a *margin call* is not satisfied by 4pm on the second *business day* after the *margin call* is issued, an *event of default* is declared, and a default notice (or *notice of intent to suspend*) may be issued. The *market participant* is given a period of time to remedy the *event of default*. This can be done by the *market participant* paying all monies due for payment, together with any *default interest* and other costs or expenses established by the *IESO*.

If the *event of default* is not rectified within the timeframe specified in the default notice, the *IESO* may begin the process to draw upon part or all of the *market participant's* prudential support, or impose a lower trading limit, more frequent schedule of payments, or more stringent prudential support requirements.

For further information on *events of default*, please refer to "Market Manual 2: Market Administration, Part 2.6: Treatment of Compliance Issues."

[3] This could include entering in to a physical bilateral contract with another *market participant*. See "Part 5.3: Submission of Physical Bilateral Contract Data" for more information on this process.

Credit Warnings

Where the *IESO* determines that there is a credit watch negative warning on a *market participant* (i.e. a movement of the *market participant* to a negative credit watch status by any of the major bond-rating agencies) there is an automatic one-notch reduction in the *market participant's* credit rating (for example, from BBB+ to BBB), as set out in Appendix C (Chapter 2, section 5.8.2 of the *market rules*). The *IESO* will reassess the *market participant's prudential support obligation*, on this basis, and/or review the acceptability of any Prudential Guarantees received as *prudential support*, based on the revised credit rating of the guarantor.

1.3.3 No Margin Call Option

Subject to *IESO* approval, a *market participant* may elect the *no-margin call option*, which would exempt a *market participant* from receiving a *margin call*, regardless of the level of its *estimate actual net exposure* (Chapter 2, sections 5.6.4, 5.6.5 and 5.6.6 of the market rules). The *IESO* will set the *maximum net exposure* for a *market participant* that has elected this option, to be equal to 70 days of market activity and assuming all of the participant's energy injected or withdrawn is transacted through the *real-time market*, or 100% of the *market participant's* net settlement amount for non-*metered market participants*. A *market participant* under the *no margin call option* will not have a *trading limit*. This participant would not be subject to *margin calls*, and would only receive the regular monthly *invoice* from the *IESO*. This *market participant* would not be able to claim any allowed reductions in *prudential support obligations* (i.e. good payment history, credit rating, or LDC prudential credit reduction) with the exception of the *small distributor*. The price basis used in the calculation of the *prudential support obligation* for *metered market participants* under the *no-margin call option* will be consistent with Chapter 2, section 5.3.10A.1, 5.3.10A.2, and 5.3.10B of the *market rules*.

1.3.4 Small Distributor

A *small distributor* is defined as a *distributor* with a projected energy consumption less than or equivalent to 0.25% of projected total system *energy* on an annual basis. A *small distributor* would be able to elect the *no margin call option* and still be able to claim allowed reductions in its *prudential support obligation* (i.e. good payment history, LDC prudential credit). A*small distributor* may make a rough determination from their forecast annual energy consumption for the upcoming year as provided in their submission divided by the sum of the monthly total system energy forecasts for the year. Final determination as to whether a *market participant* qualifies as a *small distributor* will be made by the *IESO*.

1.3.5 LDC Prudential Credit

There are three allowed reductions that may be used by *market participants* (if applicable) in order to reduce their *prudential support obligation* (Chapter 2, section 5.8 of the *market rules*):

1. Reduction for credit rating
2. Good payment history reduction
3. LDC prudential credit

LDC Prudential Credit

The Retail Settlement Code authorizes *distributors* to collect *prudential support* from its customers, be they retailers or retail end-use customers. This can result in instances where there is *prudential support* posted by both the (wholesale) *distributor* participant and its retail customer for the very same MWhs (i.e. *prudential support* posted by retail customer with the *distributor*, in addition to prudential support posted by the *distributor* with the *IESO* for the same MWhs).

In order to eliminate this over-collateralization, and to provide greater flexibility for *distributors* to meet their *prudential support obligation*,the *distributors* are permitted to have a sixty cent reduction in their wholesale market *prudential support obligation* of the "tangible" *prudential support* for every dollar collected in retail *prudential support* they have collected from their customers (Chapter 2, section 5.8.8 of the market rules). Tangible *prudential support* includes cash, Government of Canada T-Bills, irrevocable commercial letters of credit from a Schedule Bank in Canada and guarantees by a third person or affiliate. To qualify for this reduction in *prudential support obligation* in the market, a *distributor* would need to provide proof for the *prudential support* it has collected from its customers. This proof would be in the form of completion of "Affidavit Regarding Reduction in Prudential Support Obligations" – IMO_AFF_0001, which is an affidavit attesting to the amount of tangible *prudential support* being held by the *distributor* from its customers, and copies of the irrevocable letters of credit and bank statements detailing cash deposits held for such a purpose as requested by the *IESO*.

For example, if an LDC has a *maximum net exposure* of $25 million, but the LDC has collected prudentials in the amount of $10 million from its own customers, and can provide verifiable proof (i.e. an affidavit) of said prudentials to the *IESO*, then its outstanding *prudential support obligation* would be $19 million [$25M – ($10M * 0.6)]. Any outstanding prudential obligation would have to be met from one or a combination of the other instruments listed in Chapter 2. Under this option *distributors* would also be able to claim good payment history or credit rating reduction pursuant to Chapter 2, Section 5.8.5 or 5.8.1A of the "*Market Rules*" to meet its *prudential support obligation*. The LDC prudential credit will be deducted first before other applicable deductions could be utilized.

A *market participant* claiming the LDC prudential credit reduction, *market participants* must submit the required documentation.

1.3.6 Event of Default

Where the *IESO* issues a default notice, or a *notice of intent to suspend*, it will also:

- deem any *physical bilateral contract quantities* to be zero for the period from the date the *event of default* occurs until it is remedied if that *market participant* is the *selling market participant*; or
- rescind or refuse to accept any initial or revised *physical bilateral contract* data relating to a *dispatch day* after the date of the *event of default* if that *market participant* is the *buying market participant.*

The process of default is addressed in "Part 5.9: Payment Methods and Schedule", where this relates to non-payment of an invoice and in "Market Manual 2: Market Administration, Part 2.6: Treatment of Compliance Issues", where it relates to a compliance issue.

See "Part 5.3: *Submission of Phys*ical Bilateral Contract Data" for more information on the *Physical Bilateral C*ontract process.

1.3.7 [Intentionally Left Blank]

1.3.8 Capacity Prudential Requirements

The IESO determines the *capacity prudential support* obligation for each market participant or *capacity market participant* for each *obligation period* based on a percentage of the monthly availability payment, less any allowable reductions.

The IESO calculates the *capacity prudential support* obligation as follows:

[Monthly Availability Payment ($) × 50%] – Allowable Reductions

Where;

Monthly Availability Payment = Σ (*Capacity obligation(s)* for the *obligation period* × Zonal Clearing Price × 23 days).

All *capacity auction participants* with a capacity obligation are encouraged to post prudential support for the *obligation period*, at least 60 days prior to the *obligation* period.

The Prudential Requirements Contact will have a task in Online IESO to submit the *capacity prudential support* information.

The *capacity prudential support* posted by a market participant/*capacity market participant* to satisfy this obligation must be in the following form (Chapter 2, section 5.B.4.2 of the *market rules*):

- 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 Standard and Poor's long-term credit rating of "A" or equivalent from an IESO acceptable major bond rating agency; or
    b. a credit union licensed by the Financial Services Commission of Ontario with a minimum Standard and Poor's long-term credit rating of "A" or equivalent from an IESO acceptable major bond rating agency.

There are two allowed reductions that may be used by market participants (if applicable) in order to reduce their prudential support obligation (Chapter 2, section 5B.5 of the market rules):

1. Reduction for credit rating
2. Good payment history reduction

If reductions are currently being utilized by a participant in the physical market, the reductions will be adjusted accordingly to not exceed the maximum allowable under the market rules.

The *capacity prudential support obligation* amount may increase depending on poor creditworthiness / history in the IESO market.

In the case where a full or partial *capacity obligation transfer* is being requested;

- The *capacity transferee* must satisfy its *capacity prudential support obligation*, including any additional *capacity prudential support obligation* that may be required as a result of a transfer request, within 5 business days of receiving notification from the IESO or within such longer period of time as may have been agreed to with the IESO.
- After the *capacity prudential support obligation* or revised *capacity prudential support obligation*, as applicable, has been satisfied by the *capacity transferee*, the IESO will notify the *capacity transferor* of its approval or rejection of the transfer request and, upon receiving an approval notification, the *capacity transferor* may request the IESO to reassess its *capacity prudential support obligation*.

1.4 Roles and Responsibilities

Responsibility for *prudential support* is shared among:

- ***Market participants***, who are responsible for:
  - Submitting the required prudential support information via Appian tool and/or Market Participant Prudential System;
  - notifying the *IESO* that they wish to adjust its *self-assessed trading limit*, as necessary at least seven *business day*s prior to the start of a *billing period*, to reflect its expected trading activity during that *billing period* ; (with the exception of *market participants* under the *no margin call option)*
  - providing *prudential support* that satisfies their *prudential support obligation*;
  - for *metered market participants* with a credit rating of BBB- or higher, and who have requested their *minimum trading limit* and *default protection amount* be calculated removing the *energy* quantities associated with the participant's *physical bilateral contracts* registered with the *IESO*, submit to the *IESO* the quantity and duration of the applicable *physical bilateral contracts* and notify the *IESO* immediately upon a change in the quantity or duration of the *physical bilateral contract* including the termination of the contracts;
  - receiving a notice of *margin call* warning and/or a *margin call* and taking appropriate corrective action (with the exception of *market participants* under the no *margin call option)*;
  - receiving a default notice, or a *notice of intent to suspend*, and taking appropriate action to remedy the *event of default*; and
  - re-establishing *prudential support*, if drawn on by the *IESO*, in order to retain market participation – If *prudential support* is due to expire or terminate, at least ten *business day*s prior to expiration ("Market Rules," Chapter 2, Section 5.2.5); Where a participant's credit rating or good payment history had been revised, resulting in additional *prudential support* requirements, participants must provide any additional *prudential support* within five *business day*s ("Market Rules," Chapter 2, Section 5.2.6); Where any part of the *prudential support* provided by a participant otherwise ceases to be current or valid for any reason, the participant must immediately notify the *IESO* and provide to the *IESO* within two *business day*s, a replacement *prudential support* ("Market Rules," Chapter 2, Section 5.2.7).

- The ***IESO***, which is responsible for:
  - assessing (and reassessing) the minimum trading limit, trading limit, and default protection amount of each market participant (or applicant seeking authorization) as applicable;
  - annually reviewing each price basis used in the calculation of a metered market participant's minimum trading limit and default protection amount, and modification if the applicable price basis has increased or decreased by 15% or more from the price basis used by the IESO;
  - assessing (and reassessing) the maximum net exposure and prudential support obligation of each market participant (or applicant seeking authorization);
  - determining whether adequate *prudential support* has been provided by the *market participant*, according to the *market rules*;

- checking for credit rating watch warnings against *market participants*;
- determining if the *estimated actual net exposure* is within the *trading limit*, and warning *market participants* of potential *margin call*s or issuing *margin call*s, as appropriate (with the exception of *market participants* under the *no margin call option)*;
- taking appropriate action in response to an *event of default*; and
- drawing on a *market participant's prudential support,* as necessary, and verifying that *prudential support* is re-established within a specified timeframe.

1.5 Contact Information

As part of the participant authorization and registration process, market participants required to identify a contact for prudential matters. If a *market participant* has not identified a specific contact, the *IESO* will seek to contact the Main Contact for prudential matters. The *IESO* will seek to contact these individuals for activities within this procedure, unless alternative arrangements have been established between the *IESO* and the *market participant*. If the *market participant* wishes to contact the *IESO*, the *market participant* can contact *IESO* Customer Relations via email at IESOCustomerRelations@ieso.ca, or by the phone number provided on the *IESO*'s website (www.ieso.ca), on the "Contact Us" page.

– End of Section –

Appendix A: Forms

This appendix contains a list of forms associated with the *prudential support* procedure, which are available on the *IESO*'s Web site (http://www.ieso.ca/). The forms included are as follows:

Form Name	Form Number
Prudential Guarantee	IMP_GRNT_0001
Affidavit Regarding Reduction in Prudential Support Obligations	IMO_AFF_0001

– End of Section –

Appendix B: Calculation of Minimum Trading Limit and Default Protection Amount

B.1 Introduction

With the exception of a *market participant* who has elected the *no-margin call option*, the *maximum net exposure* for a *market participant* is equal to the sum of its *trading limit* and *default protection amount* (Chapter 2, section 5.3.1 of the market rules).

B.2 Default Protection Amount

The *IESO* shall establish a *default protection amount* for each *market participant* as follows (Chapter 2 section 5.3.8 of the market rules):

- For a *metered market participant*, 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 the *energy forward market* and estimated *settlement amounts* associated with a *transmission right*, assuming 21 days of participation in the *real-time market* and assuming all *energy* injected or withdrawn is transacted through the *real-time market* (i.e. ignoring the impact of *physical bilateral contracts*);
- For a *market participant* that is 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 Chapter 2, section 5.3.4.2 or section 5.3.4.3, as applicable..

<u>Adjusting the Default Protection Amount for Physical Bilateral Contracts</u>

- A *metered market participant* with a credit rating of BBB- or higher, subject to any adjustment under section 5.8.2, may request its *default protection amount* be calculated removing the *energy* quantities associated with the 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.
- If the above conditions are met (Chapter 2, section 5.3.8A of the *market rules*), the *IESO* shall determine the *metered market participant's default protection amount* assuming all *energy* injected or withdrawn is transacted through the *real-time market* net of *energy* quantities associated with those *physical bilateral contracts*.

B.3 Minimum Trading Limit

The *IESO* shall establish a *minimum trading limit* amount for each *market participant* as follows (with the exception of *market participants* under the *no margin call option)* (Chapter 2, section 5.3.4 of the *market rules*):

- The *minimum trading limit* for a *metered market participant* shall be equal to the *IESO*'s estimate of the *metered market participant's* net *settlement amounts*, excluding estimated *settlement amounts* associated with the *energy forward market* and estimated *settlement amounts* associated with a *transmission right*, assuming 7 days of participation in the *real-time market* and assuming all *energy* injected or withdrawn is transacted through the *real-time market* (i.e. ignoring the impact of *physical bilateral contracts*). The *IESO* may use a greater number, up to and including 49 days of participation in the *real-time market* for the determination of a *metered market participant*'s minimum *trading limit* if that *metered market participant* was subject to more than one *margin call* per *energy market billing period*, provided that any such *margin call* is not the result of a price spike.
- The *minimum trading limit* for a *market participant* that is not a *metered market participant*, 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*. In estimating this net *settlement amount*, the *IESO* shall, subject to section 5.3.4.3, use an average of actual net *settlement amounts* for the 3 most recent *energy market billing periods* in which that *market participant* has 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* if that *market participant* was subject to more than one *margin call* per *energy market billing period,* provided that any such *margin call* is not caused by a price spike; and
- The *minimum trading limit* for a *market participant* that is not a *metered market participant* who has not transacted for at least 3 months in the *real-time market* shall be equal to 25% 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 the 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.

<u>Adjusting the Minimum Trading Limit for Physical Bilateral Contracts</u>

- A *metered market participant* with a credit rating of BBB- or higher, subject to any adjustment under section 5.8.2, may request its *minimum trading limit* be calculated removing the *energy* quantities associated with the 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.
- If the above conditions are met (Chapter 2, section 5.3.8A of the *market rules*), the *IESO* shall determine the *metered market participant's minimum trading limit* assuming all *energy* injected or withdrawn is transacted through the *real-time market* net of *energy* quantities associated with those *physical bilateral contracts*.

– End of Section –

Appendix C: Credit Ratings

The reduction in the level of *prudential support obligation* relative to the *market participant's maximum net exposure* that can be applied by the *IESO* based on a *market participant's* credit rating is set out in the following tables (Chapter 2, section 5.8.1 and 5.8.1A of the market rules):

Table C–1: Credit Rating Reductions for Non-Distributors

Credit Rating with Standard and Poor's Rating Terminology	**Maximum 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

Table C–2: Credit Rating Reductions for Distributors

Credit Rating with Standard and Poor's Rating Terminology	**Maximum 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

– End of Section –

References

Document ID	Document Title
N/A	The Bank Act, S.C. 1991

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