

ISO Rules

Part 100 General

Division 103 Administration

Section 103.11 Capacity Market Financial Security Requirements



External Consultation Draft
October 22, 2018

Applicability

- 1 Section 103.11 applies to:
- (a) a **capacity market participant**; and
 - (b) the **ISO**.

Requirements

Provision of Financial Security

- 2 A **capacity market participant** must provide to the **ISO**, or cause its guarantor to provide to the **ISO**, any **financial security** which the **capacity market participant** is required to provide, or is requested by the **ISO** to provide, pursuant to this section 103.11.

Financial Security for the Payment Adjustment Balance Limit

- 3(1) The **ISO** must calculate the security for the payment adjustment balance limit for an asset subject to a **capacity commitment** as follows:

$$\text{payment adjustment balance security} = \text{payment adjustment balance limit} - \text{forecast payment adjustment balance}$$

where:

- (a) *payment adjustment balance limit* is the limit calculated in subsection 3(2);
 - (b) *forecast payment adjustment balance* is the amount in dollars determined by the **ISO**.
- (2) The **ISO** must, in calculating the payment adjustment balance security in subsection 3(1), calculate the payment adjustment balance limit in accordance with the following formula:

$$\text{payment adjustment balance limit} = \text{capacity award} \times \text{negative factor} \times 12 \times 1.3$$

where:

- (a) *capacity award* is the capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation* for the next **obligation period**; and
- (b) *negative factor* is:
 - (i) -1, if the capacity award is positive; or
 - (ii) +1, if the capacity award is negative.

- (3) The **ISO** may, if the payment adjustment balance security calculated in subsection 3(1) is positive at any time prior to or during an **obligation period**, request the **capacity market participant** to provide **financial security** to the **ISO** in the amount of the payment adjustment balance security.

- (4) A **capacity market participant** that has been issued a request in accordance with subsection 3(3) must provide **financial security** in the amount of the payment adjustment balance security to the **ISO** prior to or on the date specified in the **ISO**'s request.

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(5) The **ISO** may reduce the amount of **financial security** provided by a **capacity market participant** in accordance with subsection 3(4) if:

- (a) the capacity award for the next **obligation period** is greater than the capacity award for the current **obligation period**; and
- (b) requested by the **capacity market participant**.

(6) The **ISO** may, at the start of an **obligation period**, request a **capacity market participant** to provide **financial security** to the **ISO** in the amount of the capacity award multiplied by 12 for an asset:

- (a) subject to a **capacity commitment** and with a capacity award of \$0 calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation*; or
- (b) with a negative capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation*.

(7) The **ISO** may, during an **obligation period** and upon capacity payments made by the **capacity market participant** to the **ISO** in respect to the asset referred to in subsection 3(5), reduce the amount of financial security required by the amount of any payments made by the **capacity market participant** in respect to such asset.

Financial Security for New Capacity, Refurbished Capacity and Incremental Capacity Prior to a Base Auction or Rebalancing Auction

4(1) The **ISO** may, within the timelines prescribed in the *Capacity Market Auction Guidelines*, request a **capacity market participant** to provide **financial security** to the **ISO** for the security requirement amounts determined in subsections 4(3), 4(5) and 4(6) in respect of an asset with **new capacity**, refurbished **capacity** or incremental **capacity** that is not energized and **commissioned** at the time of the **base auction** or **rebalancing auction**.

(2) A **capacity market participant** that has been issued a request in accordance with subsection 4(1) must provide **financial security** in the amounts determined in subsections 4(3), 4(5) and 4(6), as applicable prior to or on the date specified in the **ISO's** request.

(3) The **ISO** must calculate the security requirement from an asset with **new capacity** in accordance with the following formula:

$$\text{security requirement} = \frac{\text{gross-CONE}}{\text{capital recovery factor}} \times \text{uniform capacity value} \times 0.05$$

where:

- (a) *gross-CONE* is from the demand curve for the applicable **base auction** or **rebalancing auction** as established in accordance with Section 207.3 of the **ISO rules**, *Shape of Demand Curve*;
- (b) *capital recovery factor* is the value calculated in subsection 4(4); and
- (c) *uniform capacity value* is the volume of **uniform capacity value** assigned to the **capacity market participant** for an asset.

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(4) The **ISO** must, in calculating the security requirement in subsection 4(3), calculate the capital recovery factor in accordance with the following formula:

$$\text{capital recovery factor} = \frac{\{discount\ rate \times (1 + discount\ rate)^{plant\ life}\}}{\{(1 + discount\ rate)^{plant\ life} - 1\}}$$

where:

- (a) *discount rate* is the value used in the determination of gross-CONE ; and
- (b) *plant life* is 20 years.

(5) The **ISO** must calculate the security requirement from an asset with refurbished **capacity** in accordance with the following formula:

$$\text{security requirement} = \text{unit rate} \times \text{escalation rate} \times \text{uniform capacity value}$$

where:

- (a) *unit rate* is \$200/kW;
- (b) *escalation rate* is the value calculated in subsection 4(7); and
- (c) *uniform capacity value* is the volume of **uniform capacity value** assigned to the **capacity market participant** for an asset.

(6) The **ISO** must calculate the security requirement from incremental **capacity** in accordance with the following formula:

$$\text{security requirement} = \text{unit rate} \times \text{escalation rate} \times \text{incremental capacity} \times 0.05$$

where:

- (a) *unit rate* is \$100/kW;
- (b) *escalation rate* is the value calculated in subsection 4(7); and
- (c) *incremental capacity* is the volume of incremental **capacity** provided in accordance with Section 206.1, Qualification of Capacity .

(7) The **ISO** must calculate the escalation rate in accordance with the following formula:

$$\text{escalation rate} = \frac{0.25 \times \text{labour index}}{60.7} + \frac{0.35 \times \text{materials index}}{118.5} + \frac{0.40 \times \text{turbine index} \times \text{exchange rate}}{268.7}$$

where:

- (a) *labour index* is the most recent 12 month average of published Statistics Canada Construction Union Wage Rates (Electrician), Monthly for Edmonton Alberta, Table 18 10-0046-01;

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- (b) *materials index* is the most recently published Statistics Canada Gross National and Gross Domestic Income, Indexes and Related Statistics, Annual, Table 36-10-0105-01;
- (c) *turbine index* is the most recent 12 month average of published Federal Reserve Economic Data (St. Louis) Producer Price Index by Industry: Turbine and Turbine Generator Set Units Manufacturing (PCU333611333611); and
- (d) *exchange rate* is the most recent 12 month average of published Statistics Canada Monthly Average Exchange Rates in Canadian Dollars, U.S. Dollar monthly average, Table 33-10-0163-01.

Adjusted Financial Security Following a Base Auction or Rebalancing Auction

5(1) The **ISO** must, if a **capacity market participant** provided the **financial security** in accordance with subsection 4(2), determine the adjusted security requirement following a **base auction** or a **rebalancing auction** as follows:

- (a) \$0, if the **capacity market participant** elected to permanently delist the entire volume of **new capacity** or refurbished **capacity** for the asset in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*;
- (b) \$0, if the **capacity market participant** elected to permanently delist the incremental **capacity** for the asset in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*;
- (c) notwithstanding subsection 3(6), \$0, if the **capacity market participant** did not receive a **capacity commitment** in the last **rebalancing auction** ;
- (d) \$0, if the **capacity market participant** achieved energization and **commissioning** for an asset;
- (e) the amount of security calculated in accordance to subsection 4(3), 4(5) and 4(6), if the **uniform capacity value** for the asset changes from the prior **base auction** or **rebalancing auction**; or
- (f) the amount of security required for the volume of **capacity commitment** calculated in accordance with subsection 5(2), if applicable.

(2) The **ISO** must, if a **capacity market participant** was determined to meet applicable milestones in accordance with Section 206.5 of the **ISO rules**, *Forward Period Milestone Assessment* before a **rebalancing auction**, calculate the reduced security requirement for an asset with **new capacity**, refurbished **capacity** or incremental **capacity** that cleared a prior **base auction** or **rebalancing auction** in accordance with the following formula:

$$\text{reduced security requirement} = \text{security rate} \times \text{capacity commitment} \times \left(\frac{\text{remaining auctions}}{\text{total auctions}} \right)$$

where:

- (a) *security rate* is the rate calculated in subsection 5(3);
- (b) *capacity commitment* is the **capacity commitment** of the asset for the **obligation period**;

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- (c) *total auctions* is the count of all **base auctions** and **rebalancing auctions**, regardless of the respective **obligation period**, from the **base auction** or **rebalancing auction** which the initial security requirement was provided pursuant to subsection 4, to the start of the **obligation period** for which the initial security requirement was provided; and
- (d) *remaining auctions* is the greater of:
 - (i) the count of all **base auctions** and **rebalancing auctions**, regardless of the respective **obligation period**, from the **rebalancing auction** which the reduced security requirement is being calculated, to the start of the **obligation period** for which the reduced security requirement is being calculated; or
 - (ii) 1.

(3) The **ISO** must, when calculating the security rate in subsection 5(2), calculate the security rate in accordance with the following formula:

- (a) for an asset with **new capacity** subject to a **capacity commitment**:

$$\text{security rate} = \frac{\text{gross-CONE}}{\text{capital recovery factor}} \times 0.05$$

where:

- (i) *gross-CONE* is from the demand curve for the applicable **base auction** or **rebalancing auction** as established in accordance with Section 207.3 of the **ISO rules**, *Shape of Demand Curve*; and
 - (ii) *capital recovery factor* is the value calculated in subsection 4(3);
- (b) for an asset with refurbished **capacity** subject to a **capacity commitment**:

$$\text{security rate} = \text{unit rate} \times \text{escalation rate} \times 0.05$$

where:

- (i) *unit rate* is \$200/kW; and
 - (ii) *escalation rate* is the value calculated in subsection 4(7);
- or
- (c) for an asset with incremental **capacity** subject to a **capacity commitment**:

$$\text{security rate} = \text{unit rate} \times \text{escalation rate} \times 0.05$$

where:

- (i) *unit rate* is \$100/kW; and
- (ii) *escalation rate* is the value calculated in subsection 4(7);

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(4) The **ISO** may, following a **rebalancing auction**, adjust the amount of **financial security** a **capacity market participant** provided to the **ISO** for an asset in accordance with the amount determined in subsection 5(1), as applicable.

(5) The **ISO** may, if an asset does not achieve energization and **commissioning** prior to the start of the **obligation period**, hold the **financial security** provided to the **ISO** in respect of such asset until after any under-delivery adjustment or over-delivery adjustment is determined for the **obligation period** in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*.

Revision History

Date	Description
yyyy-mm-dd	Initial release