# Information Document
# Capacity Market Financial Security Requirements
# ID #[xxxx-xx]

Information Documents are not authoritative. Information Documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s)[1] in effect, the Authoritative Document(s) governs.

## 1 Purpose

This Information Document relates to the following Authoritative Document:

- Section 103.11 of the ISO rules, *Capacity Market Financial Security Requirements* ("Section 103.11").

The purpose of this Information Document is to provide further information in relation to how the AESO determines the security requirements for a capacity market participant and to provide examples of the calculations.

## 2 Background

The AESO establishes the financial security requirements applicable to the capacity market participant taking into consideration the following:

(a) new capacity, refurbished capacity, or incremental capacity require the capacity market participant to provide security;

(b) there is no security requirement during the obligation period if, for the following obligation period, the capacity asset maintains a capacity obligation and is eligible for a capacity award that is equal to or greater than the capacity award for the current obligation period;

(c) if the capacity asset does not have an obligation in the following obligation period, then the AESO may request security against the estimated outstanding payment adjustment balance owing; and

(d) if the capacity asset has a reduced capacity award in the following obligation period, then the AESO may request security against a portion of the estimated outstanding payment adjustment balance owing.

## 3 Provision of financial security for the payment adjustment balance limit of existing assets

*Example: an asset with capacity award of -$10,000 for the next obligation period and the current payment adjustment balance (PAB) is -$306,000*

As set out in subsection 3 of Section 103.11, the payment adjustment balance limit equals:

capacity award for the next obligation period X -15.6, if the capacity award is positive

OR

capacity award for the next obligation period X 15.6 , if the capacity award is negative

PAB limit = -$10,000 X 15.6 = -$156,000

PAB security = PAB limit minus forecast PAB

PAB security = -$156,000 minus -$306,000 = $150,000

In this example, the capacity market participant will be required to provide financial security in the amount of $150,000 less any unsecured credit limit granted to them as determined in accordance with Section 103.3 of the ISO rules, *Financial Security Requirements*.

On an ongoing basis, or at the request of the capacity market participant, the AESO estimates the capacity asset's forecast payment adjustment balance based on trends in historical data.

[1] "Authoritative Documents" is the general name given by the AESO to categories of documents made by the AESO under the authority of the *Electric Utilities Act* and associated regulations, and that contain binding legal requirements for either market participants or the AESO, or both. AESO Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

The capacity market participant may request that the AESO invoice it an additional amount over and above the payments required as part of the capacity market invoice in order to reduce the amount of financial security required. As set out in subsection 3(7) of Section 103.11, the AESO applies these payments to the capacity asset's payment adjustment balance.

## 4 Examples of financial security for new capacity, refurbished capacity, and incremental capacity prior to a base auction or rebalancing auction

### 4.1 New capacity

*Example: the security requirement for a 100 MW capacity asset assuming gross-CONE of $148/kW-year and a discount rate of 8% would be:*

$$\frac{gross - CONE \text{ from the applicable demand curve}}{\frac{\{discount\ rate \times (1 + discount\ rate)^{20}\}}{\{(1 + discount\ rate)^{20} - 1\}}} \times uniform\ capacity\ value\ for\ the\ asset\ \times 0.05$$

$$\frac{148}{\frac{\{0.08 \times (1 + 0.08)^{20}\}}{\{(1 + 0.08)^{20} - 1\}}} \times 100{,}000 \times 0.05\ = \$7.27M$$

### 4.2 Refurbished capacity

*Example: the security requirement for a 100 MW refurbished capacity asset assuming an escalation rate of 1.02 would be:*

$$unit\ rate \times escalation\ rate \times uniform\ capacity\ value \times 0.05$$

$$200 \times 1.02 \times 100{,}000 \times 0.05 = \$1.02M$$

### 4.3 Incremental capacity

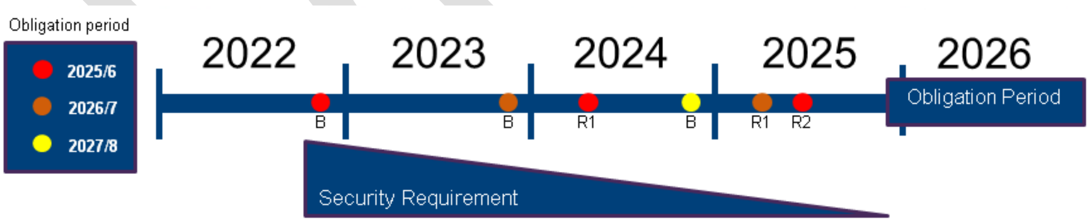
*Example: the security requirement for a 10 MW increase in incremental capacity assuming an escalation rate of 1.02 would be:*

$$unit\ rate \times escalation\ rate \times incremental\ capacity\ value \times 0.05$$

$$100 \times 1.02 \times 10{,}000 \times 0.05 = \$51{,}000$$

## 5 Example of adjusted financial security following a base auction or rebalancing auction

The following is intended to provide an example calculation of the security requirement for a brand new 100 MW capacity asset using an estimated gross-CONE of $148/kW:




(a) Capital Recovery Factor, assuming a 8% discount rate = {.08(1 + .08)^20} / {[(1 + .08)^20]-1} = 0.102 or 10.2%

(b) Security requirement = $148/kW *1/CRF = $1451/kw or $1.451m/MW * 5% = $72k/MW

(c) Security requirement rate = $72k/MW / maximum number of auctions before the obligation period (6) = $12,000/MW

(d) Reduced  security requirement = security rate * Capacity commitment * number of remaining auctions before the obligation period:

prior to 2025 Base Auction (2022) = (.012 * 100 MW) * 6 = 7.2M

prior to 2025 First Rebalancing Auction (2024) = (.012 * 100 MW) * 4 = 4.8M

prior to 2025 Second Rebalancing Auction (2025) = (.012 * 100 MW) * 1 = 1.2M

after commercial operation = (.012 * 100 MW) * 0 = 0M

As set out in subsection 5(2) of Section 103.11, the reduced security requirement is contingent on the project meeting its declared project milestones. If the capacity market participant is required to buy back its obligation in a rebalancing auction, or if they received a negative capacity award, the AESO holds the security to guarantee the payment of the rebalancing costs during the obligation period.

## Revision History

| Posting Date | Description of Changes |
|---|---|
| | Initial release |