~~Set 2~~ Terms and definitions to be added for use in the Capacity Market ISO rules:

~~**"delist outage**~~**"avoidable costs"** means ~~a derate or~~ the costs that are not incurred if an ~~outage for a **source** asset or load **sink asset** associated with a temporary delist referred to in section 206.9 of the ISO rules, *Delisting*.~~

~~[Note, the defined term "delist outage" was posted with the EAS definitions as well]~~

~~"**firm consumption level**" means that a load asset will consume a maximum volume of energy in MW during supply shortfall in an~~was temporarily delisted for the **obligation period**~~.~~ or a portion of the **obligation period**.

~~"**guaranteed load reduction**" means that a load asset will reduce consumption by a volume of energy in MW.~~

~~"**uniform capacity value**" means a uniform measure, in MW, of an asset's ability to provide **capacity**.~~

~~"**transmission market constraint**" means an exceedance of a reliability limit on 1 or more elements of the **transmission system**, where:~~

~~(i) the **ISO** must take action to prevent or mitigate the exceedance; and~~

~~(ii)~~(i) ~~results in an impact to the normal economic merit operation of generation, load, or **interchange transactions**,~~

~~excluding a circumstance where the capability limits referenced in Section 303.2 of the **ISO rules**, *Available Transfer Capability* are exceeded.~~

~~[Note, the defined term "transmission market constraint" was posted with the EAS definitions as well]~~

~~**Set 1 Terms and definitions to be added for use in the Capacity Market ISO rules:**~~

"**base auction**" means the first auction for **capacity** for an **obligation period**.

"**capacity**" as defined in the **Act**, with respect to the capacity market means the ability to supply electric energy or reduce electric energy consumption as measured in MW.

"**capacity block**" means one of the price and quantity pairs the **ISO** allocates to an asset for a **base auction** or **rebalancing auction** for the purposes of submitting an **offer** or **bid** in the capacity market.

"**capacity commitment**" means an obligation to deliver, during an **obligation period**, a volume of ~~an **offer**~~electric energy expressed as a positive integer, corresponding to the volume of **capacity** that ~~has~~ cleared in a **base auction** or a **rebalancing auction** net of a **bid** that cleared in a **rebalancing auction**.

"**capacity market participant**" means a **person** registered with the **ISO** to transact **capacity** in the capacity market in accordance with Section 201.10 of the **ISO rules**, *Capacity Market Participant Registration*~~.~~.

"delist outage" means a derate or an outage for ~~the capacity market~~a **source asset** or load **sink asset** associated with a temporary delist referred to in Section 206.9 of the **ISO rules**, *Delisting*.

[Note, the defined term "delist outage" was posted with the EAS definitions as well]

-"**electricity market participant**" as defined in the **Act**, means

(i) any person that supplies, generates, transmits, ~~distributed~~distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services, or

(ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services.

"**firm consumption level**" means a reduction in consumption of electric energy to a maximum volume that is provided by a load asset during an **obligation period**. "**guaranteed load reduction**" means a reduction in consumption of electric energy by a volume that is provided by a load asset during an **obligation period**.

"**new capacity**" means **capacity** from an asset:

(i) that has not ~~had an **offer** clear in~~ completed energization or **commissioning** prior to a **base auction** or **rebalancing auction**~~; and~~ and has not cleared a previous **base auction** or **rebalancing auction**;

(ii) in the case of a **generating unit** or **aggregated generating facility**, that has ~~not~~ completed energization and **commissioning** ~~prior to the **obligation period**.~~after November 1, 2019 and has not cleared a **base auction** or **rebalancing auction**;

(iii) in the case of an asset that was permanently delisted and re-entered the market, has been designated by the **ISO** in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*;

(iv) in the case of an import asset, that has not cleared in a previous **base auction** or **rebalancing auction**.

"**obligation period**" means a 12-~~-~~month period running continuously from November 1 to October 31 of the following year.

"**rebalancing auction**" means an auction for **capacity** conducted after a **base auction** for ~~an~~the same **obligation period**.

"**resource adequacy standard**" means the minimum level of expected unserved energy established by Government of Alberta in regulation.

"**transmission market constraint**" means an exceedance of a reliability limit on 1 or more elements of the **transmission system**, where:

(i) the **ISO** must take action to prevent or mitigate the exceedance; and

(ii) the action results in an impact to the normal economic merit operation of generation, load, or **interchange transactions**.

excluding a circumstance where the capability limits referenced in Section 303.2 of the **ISO rules**, *Available Transfer Capability* are exceeded.

[Note, the defined term "transmission market constraint" was posted with the EAS definitions as well]

"**uniform capacity value**" means a fungible measure in MW, expressed as a positive integer, of an asset's ability to provide **capacity** calculated in accordance with Section 206.3 of the **ISO rules**, *Uniform Capacity Value Determination*.

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 103.9 applies to:

(a) a **capacity market participant**; and

(b) the **ISO**.

Requirements

Currency

2 The **ISO** must determine all payments, charges, amounts and calculations under this section 103.9 in Canadian dollars.

~~Adjusted~~Monthly Capacity Payment ~~Amount~~for an Asset with a Positive Capacity Award

3(1) The **ISO** must, for ~~each **settlement period** in an **obligation period** for each~~ an asset ~~for which the ISO has determined that payments, charges, amounts or calculations pursuant to subsection 2 apply, calculate an adjusted capacity payment amount equal to the sum of the following:~~

~~(a) the capacity payment,~~with a positive capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation*, ~~subject~~pay to ~~subsection 6;~~

~~(b) any uplift~~the **capacity market participant** a capacity payment~~;~~

~~(c)~~ for each ~~delivery assessment hour in such~~ **settlement period**~~, any under-delivery adjustment or over-delivery adjustment,~~ as ~~applicable;~~follows:

(~~d~~)a) where ~~that **settlement period**~~the asset is ~~the last **settlement period** in the **obligation period**, any under-availability adjustment or over-availability adjustment for the **obligation period**, as applicable,~~ subject to a **capacity commitment**:

(i) $0, if the capacity payment calculated in subsection ~~7~~5 is less than or equal to $0;

~~(e) any adjustments to the items~~(ii) the capacity payment calculated in subsection 5 if such amount is:

(A) greater than $0; and

(B) less than the applicable payment cap in subsection 3(2); or

(iii) the applicable payment cap in subsection 3(~~1)(c) or~~2), if the capacity payment calculated in accordance with subsection ~~3(1)(d) relating to any of the prior **settlement periods** referenced in subsection 7;~~ 5 exceeds the applicable payment cap;

and

~~(f) any adjustments relating to the resolution of any disputes referenced in subsections 15 or 17; and~~

~~(g)~~ (b) where the asset is not subject to a **capacity commitment**, the capacity award.

(2) The **ISO** must set the payment ~~adjustment balance~~cap as the greater of:

(a) $2,771/MW multiplied by the **capacity commitment** associated with the asset, if the clearing price of the **base auction** was less than $33/kW-year; or

(b) 2 times the capacity award for the ~~previous~~asset, in all other cases.

Monthly Capacity Payment for an Asset with a Negative Capacity Award

4(1) A **capacity market participant** must, for an asset that is subject to a **capacity commitment** with a negative capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation*, pay the **ISO** the capacity payment determined in accordance with subsection 5 for each **settlement period**, ~~whether or not the previous~~if such amount is negative.

(2) A **capacity market participant** must, for an asset that is not subject to a **capacity commitment** with a negative capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation*, pay the **ISO** the capacity award for each **settlement period** ~~is in the current **obligation period** or is the last~~.

(3) The **ISO** must, for an asset subject to a **capacity commitment** with a negative capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation*, pay the **capacity market participant** for each **settlement period** ~~of the previous **obligation period,** or where the relevant~~the capacity payment determined in accordance with subsection 5, if such amount is positive.

Monthly Capacity Payment

5 The **ISO** must, for each asset subject to a **capacity commitment**, calculate a monthly capacity payment for each **settlement period** ~~is the first **settlement period** for that asset, $0;~~, in accordance with the following formula:

$$monthly\ capacity\ payment =$$
$$capacity\ award + uplift + statement\ adjustments + payment\ adjustment\ balance$$
$$+ under\ delivery\ adjustment\ charge + over\ delivery\ adjustment\ payment$$
$$+ under\ availability\ adjustment\ charge + over\ availability\ adjustment\ payment$$

where:

~~"delivery assessment hour" means any **settlement interval** or portion thereof that~~(a) *capacity award* is ~~subject to an energy emergency alert;~~

~~"over-availability adjustment" means an amount~~the award in dollars calculated ~~pursuant to~~ in accordance with Section ~~206.8~~103.10 of the **ISO rules**, ~~*Obligation Period Performance Assessments* with respect to the over-availability of an asset subject to a **capacity commitment** during any **obligation period***~~Capacity Award Calculation~~;

~~"over-delivery adjustment" means an amount calculated pursuant to Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments* with respect to the over-delivery by an asset subject to a **capacity commitment** during a delivery assessment hour;~~

~~"payment adjustment balance" means an amount calculated pursuant to subsection 4(1) with respect to any portion of the adjusted capacity payment amount determined pursuant to subsection 3 for a **settlement period** that is not cash settled in respect of such **settlement period** but is instead recorded by the **ISO** as either an amount owing by the **ISO** to the **capacity market participant** or owing by the **capacity market participant** to the **ISO**;~~

~~"under-availability adjustment" means an amount calculated pursuant to Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*;~~

~~"under-delivery adjustment" means an amount calculated pursuant to Section 206.8 of the~~

ISO rules, *Obligation Period Performance Assessments*; (b) *uplift* is the monthly uplift payment in dollarsand

"uplift payment" means any payment determined in accordance with Section 201.13 of the **ISO rules**, *Capacity Market Clearing* if the **ISO** clears the **offer** for an asset at a price greater than the clearing price. ;

Net Capacity Payment

4(1) The **ISO** must, for each **settlement period** in an **obligation period** for each asset subject to a **capacity commitment** and a positive capacity payment amount calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Payment Calculation*, pay the **capacity market participant** an amount equal to the following:

(a) if the adjusted capacity payment amount determined pursuant to subsection 3 is less than or equal to 0, then the payment is $0; in which case the payment adjustment balance for the **settlement period** is equal to the adjusted capacity payment amount;

(b) if the adjusted capacity payment amount determined pursuant to subsection 3 is greater than 0 but less than or equal to two times the capacity payment, calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Payment Calculation*, then the payment is equal to the adjusted capacity payment amount; in which case the payment adjustment balance for the **settlement period** is equal to $0; and

(c) if the adjusted capacity payment amount determined pursuant to subsection 3 is greater than two times the capacity payment, calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Payment Calculation*, then the payment is an amount equal to two times the capacity payment; in which case the payment adjustment balance for the **settlement period** is equal to that adjusted capacity payment amount less the amount of the payment.

(2) A **capacity market participant** must, for each **settlement period** in an **obligation period** for each asset subject to a **capacity commitment** and a negative capacity payment amount calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Payment Calculation*, pay the **ISO** an amount equal the adjusted capacity payment amount determined pursuant to subsection 3, if that amount is negative.

(3) The **ISO** must, for each **settlement period** in an **obligation period** for each asset subject to a **capacity commitment** and a negative capacity payment amount calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Payment Calculation*, pay the **capacity market participant** an amount, subject to the limitation in subsection 7(1), equal to the adjusted capacity payment amount determined pursuant to subsection 3, if that amount is positive.

(c) *statement adjustments* is all amounts in dollars for the resolution of any disputes referenced in subsections 17 or 19;

(d) *payment adjustment balance* is the amount in dollars calculated at the end of the prior **settlement period** in accordance with subsection 7;

(e) *under-delivery adjustment charge* is the amount of under-delivery adjustments in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*;

(f) *over-delivery adjustment payment* is the amount of over-delivery adjustments in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*, subject to the limits in subsections 6(1) and 6(2);

(g) *under-availability adjustment charge* is the amount of under-availability adjustments in dollars

determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*; and

(h) *over-availability adjustment payment* is the amount of over-availability adjustment in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*, subject to the limits in subsections 6(1) and 6(3).

Funding Over-Delivery and Over-Availability Adjustments

6(1) The **ISO** must, for an asset subject to a **capacity commitment**, determine the over-delivery adjustment payment of the asset for each **settlement period** as the lesser of:

(a) any over-delivery adjustments determined in accordance to Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*; or

(b) the amount allocated to an asset based on the sum of all under-delivery adjustments collected in a **settlement period** prorated across all assets entitled to an over-delivery adjustment in the same **settlement period**.

(2) The **ISO** must, for an asset subject to a **capacity commitment**, determine the over-availability adjustment payment of the asset for each **settlement period** as the lesser of:

(a) any over-availability adjustments determined in accordance to Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*; or

(b) the amount allocated to an asset based on the sum of all under-availability adjustments collected in a **settlement period** prorated across all assets entitled to an over-availability adjustment in the same **settlement period**.

Payment Adjustment Balance

~~5~~**7(1)** ~~Subject to subsection 5(2) and subsection 5(3), the~~ The **ISO** must ~~pay~~at the ~~amount~~end of ~~any~~each **settlement period** allocate to the payment adjustment balance for ~~a **settlement period** only in accordance with subsection 3, including where such **settlement period** is the first **settlement period** in the subsequent **obligation period**.~~

~~**(2)** Notwithstanding subsection 5(1), the **ISO** must, if~~ an asset ~~has a negative payment adjustment balance and will receive a **capacity payment** for the subsequent **obligation period** that is lower than the **capacity payment** for the current **obligation period**, adjust the payment adjustment balance for that asset by~~ an amount ~~equal to:~~ as follows:

~~the lesser of the difference between the **capacity payment** for the current **obligation period** and the **capacity payment** for the subsequent **obligation period** divided by the **capacity payment** for the current **obligation period**, or 1,~~

~~multiplied by the absolute value of the payment adjustment balance that has accrued with respect to such asset.~~

~~**(3)** Notwithstanding subsection 5(1), if, at the end of~~ (a) an **~~obligation period~~**, ~~an asset has a positive payment adjustment balance and is no longer subject to a **capacity commitment** in the next **obligation period**, the **ISO** must pay the payment adjustment balance to the **capacity market participant** over a number of **settlement periods** such that the payment for each settlement period is:~~

~~(a) equal to or less than two times the amount of the previous capacity payment for that asset from the prior **obligation period**,~~asset with a positive capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation~~;~~ ~~and~~* allocate:

~~(b) subject to the limitation in subsection 7(1).~~

~~**(4)** The **capacity market participant** must pay~~ (i) for delivery in accordance with the following formula:

$$delivery\ payment\ adjustment\ balance\ =$$
$$delivery\ payment\ adjustment\ balance\ from\ previous\ settlement\ period + over\ delivery\ adjustment + under\ delivery\ adjustment + under\ delivery\ adjustment\ collected - over\ delivery\ adjustment\ payment$$

where:

(A) *over-delivery adjustment* is the amount of over-delivery adjustments in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments;*

(B) *under-delivery adjustment* is the amount of under-delivery adjustments in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments;*

(C) *under-delivery adjustment collected* is the amount ~~identified in subsection 5(2) over a number~~ of ~~**settlement periods** such~~under-delivery adjustments that the **ISO** collect from the asset subject to the payment ~~for each **settlement period**~~floor as specified in subsection 3(1)(a)(i); and

(D) *over-delivery adjustment payment* is ~~equal to~~ the amount of ~~the previous capacity payment for that asset from the prior **obligation period**~~,over-delivery adjustment allocated to the asset for over-delivery adjustment subject to funding provision as specified in subsection 6(1).

(ii) for availability in accordance with the following formula:

$$availability\ payment\ adjustment\ balance\ =$$
$$availability\ payment\ adjustment\ balance\ from\ previous\ settlement\ period + over\ availability\ adjustment + under\ availability\ adjustment + under\ availability\ adjustment\ collected - over\ availability\ adjustment\ payment$$

where:

(A) *over-availability adjustment* is the amount of over-availability adjustments in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*;

(B) *under-availability adjustment* is the amount of under-availability adjustments in dollars determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*;

(C) *under-availability adjustment collected* is the amount of under-availability adjustment that the ISO collected from the asset subject to the payment floor as specified in subsection 3(1)(a)(i); and

(D) *over-availability adjustment payment* is the amount of over-availability adjustment allocated to the asset for over-availability adjustment subject to funding provision as

specified in subsection 6(2)

and

(b) if the asset subject to a negative capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation*~~.~~, the difference between the amount calculated in subsection 5 and subsections 4(1) or 4(3), as applicable.

~~**(5)** A~~**(2)** The **ISO** must adjust the payment adjustment balance for an asset by the following amounts:

(a) by the amounts in subsection 7(3) settled in each **settlement interval**;

(b) a payment adjustment balance reduction reflected in a financial statement in accordance with subsection 7(6); and

(c) a payment made by a **capacity market participant** ~~may submit a request to pay all or a portion~~towards the payment adjustment balance for an associated asset, if such amount was not invoiced by the **ISO**.

(3) The **ISO** must, if an asset has a positive payment adjustment balance at the end of an ~~existing~~**obligation period** and is not subject to a **capacity commitment** for the next **obligation period**, settle the payment adjustment balance such that the payment for each **settlement period** is the lesser of:

(a) the payment cap established in subsection 3(2); or

(b) the limits in subsection 6.

(4) The **ISO** must, if an asset has a negative payment adjustment balance ~~of an asset.~~and the capacity award for the next **obligation period** is lower than the capacity award for the current **obligation period**, calculate a payment adjustment balance reduction in accordance with the following formula:

~~**(6)** The **ISO** must, after receiving a request pursuant to subsection 5(5), issue a statement to the **capacity market participant** in the amount requested and adjust~~$payment\ adjustment\ balance\ reduction =$

$$reduction\ ratio \times\ payment\ adjustment\ balance$$

where:

(a) *reduction ratio* is the lesser of:

(i) the capacity award ratio calculated in subsection 7(5); or

(ii) 1.

(b) *payment adjustment balance* is the payment adjustment balance ~~to reflect~~in dollars at the end of the **settlement period** determined in subsection 7, expressed as an absolute value.

(5) The **ISO** must, in calculating the payment~~.~~ adjustment balance reduction in subsection 7(4) calculate the capacity award ratio in accordance with the following formula:

~~**New**~~$capacity\ award\ ratio =$

$$(current\ award - future\ award) \div current\ award$$

where:

(a) *current award* is the capacity award in dollars calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Asset –~~ Award Calculation* for the current **obligation period**; and

(b) *future award* is the capacity award in dollars calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation* for the next **obligation period**.

(6) The **capacity market participant** must pay to the **ISO** the amount referred to in subsection 7(4), upon receiving a financial statement for such amount from the **ISO**.

Residual Funds to Offset Costs to Procure Capacity

8 The **ISO** must, when the under-delivery adjustments and under-availability adjustments exceed the over-delivery adjustments and over-availability adjustments in a **settlement period**, as calculated in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*, use the residual funds to offset costs incurred by the **ISO** to procure **capacity**.

Failure to Achieve Energization and Commissioning

~~**6(1)**~~**9** The **ISO** must, ~~if~~for an asset subject to a **capacity** ~~**market participant**~~**commitment** that has not ~~achieved~~completed energization and **commissioning** ~~in respect of an asset with a **capacity commitment** before the start of the **obligation period**, withhold all capacity payments calculated in accordance with subsection 3 for that asset, subject to the following:~~

~~(a) withhold from the **capacity market participant** all **capacity payments** for~~ for **settlement periods** prior to and including the **settlement period** during which energization and **commissioning** is achieved until ~~availability assessments for the **obligation period** are performed; and~~ any over-availability adjustments or under-availability adjustments have been determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments*.

~~(b) if energization and **commissioning** is achieved during such **obligation period**, pay to the **capacity market participant** all **capacity payments** less an existing negative payment adjustment balance that has been withheld from the **capacity market participant** on the **settlement date** for the last **settlement period** for the **obligation period** in which energization and **commissioning** is achieved.~~

~~**Over-Availability Adjustments and Over-Delivery Adjustments**~~

~~**7(1)** The **ISO** must only make payments to the **capacity market participants** for over-availability adjustments and over-delivery adjustments from funds wholly collected by the **ISO** for under-availability adjustments and under-delivery adjustments, respectively.~~

~~**(2)** The **ISO** must, if any amounts from under-availability adjustments or under-delivery adjustments remain with the **ISO** after funding the over-availability adjustments and over-delivery adjustments payable to **capacity market participants** in accordance with subsection 7(1), use such remaining amounts to offset capacity market costs incurred by the **ISO** to procure **capacity**.~~

Post Final Adjustments

~~**8**~~**10** The **ISO** must not make post final adjustments to any capacity market statement or calculation in relation to any post final adjustments made pursuant to Section 103.4 of the **ISO rules**, *Power Pool Financial Settlement*.

Preliminary Capacity Market Statement

~~**9**~~**11(1)** The **ISO** must, no later than the close of business on the 5th **business day** after the last day of each **settlement period**, issue a preliminary capacity market statement to each **capacity market participant**, in respect of all ~~assets listed opposite a **capacity market participant** on the list the **ISO** publishes pursuant to Section 206.4 of the **ISO rules**, *Capacity Market Participant Registration*~~associated

assets determined on:

(a) an initial basis for that **settlement period**;

(b) an interim basis for that **settlement period** which is 2 **months** prior to that **settlement period**; and

(c) a final basis for that **settlement period** which is 4 **months** prior to that **settlement period**.

(2) The **ISO** must include in the preliminary capacity market statement:

(a) the capacity payment determined in accordance with subsections 3, 4 and 5, as applicable;

(b) line items ~~as per~~reflecting the values used to calculate the capacity payment in subsection ~~3(1)~~5; and

(c) any interest, late payment or other costs or charges, as applicable, under Section 103.7 of the **ISO rules**, *Financial Default and Remedies* ~~in the preliminary capacity market statement~~.

(3) ~~Subject to the provisions of~~The **ISO** must, subject to Section 103.1 of the **ISO rules**, *Confidentiality*, ~~and upon reasonable written request, the **ISO** must~~ provide to a **capacity market participant** supporting records used in determining the line items and net amounts contained in ~~a~~the **capacity market participant**'s capacity market statement, upon a reasonable written request.

Final Capacity Market Statement

~~10~~**12(1)** The **ISO** must, no later than the close of business on the 15th **business day** after the end of each **settlement period**, issue a final capacity market statement to ~~each~~a **capacity market participant** ~~containing the, amounts set out~~ in ~~the preliminary capacity market statement and~~respect of all associated assets, determined on:

(a) an initial basis for that **settlement period**;

(b) an interim basis for that **settlement period** which is 2 **months** prior to that **settlement period**; and

(c) a final basis for that **settlement period** which is 4 **months** prior to that **settlement period**.

(2) The **ISO** must include in the final capacity market statement ~~may also contain~~:

(a) the amounts set out in the preliminary capacity market statement;

(b) any updated items; and

(c) information not previously appearing on the preliminary capacity market statement.

Settlement ~~Date~~Dates and Payment Obligations

~~11~~**13(1)** The **ISO** must use the 20th **business day** following the last day of ~~that~~a **settlement period** as the settlement date for ~~a~~that **settlement period.**

(2) The **ISO** must, ~~each January~~ publish on the AESO website ~~the calendar dates which are~~each January the settlement dates for the current and next calendar year~~, being the dates for the financial settlement for the final capacity market statements~~.

(3) The **ISO** must, if the **ISO** owes an amount to the **capacity market participant** pursuant to subsection 4, pay that amount by the settlement date.

Method of Payment

14 A **capacity market participant** must pay an amount the **capacity market participant** owes, as set out in its final capacity market statement, to the **ISO** by the method the **ISO** specifies.

Interest and Other Late Payment Costs and Charges

1215 A **capacity market participant** must, if it fails to pay on or before a settlement date any outstanding **financial obligation** dollar amount owing to the **ISO** as set out in any of the **capacity market participant's** final capacity market statements, pay interest, a late payment charge, and any other costs and charges in accordance with the provisions of Section 103.7 of the **ISO rules**, *Financial Default and Remedies*.

Method of Payment

13 A **capacity market participant** must pay an amount the **capacity market participant** owes, as set out in its final capacity market statement, to the **ISO** by the method the **ISO** specifies.

Prepayment Procedures

14(1) A **capacity market participant** may prepay by the method the **ISO** specifies at any date during a **settlement period** other than a specified **settlement period** date.

(2) The **ISO** may apply any prepayment amount against any outstanding **financial obligations** of that **capacity market participant**.

Informal Disputes

15 If**16** A **capacity market participant** and the **ISO** must make reasonable efforts to informally resolve a dispute in accordance with subsection 2 of Section 103.2 of the **ISO rules**, *Dispute Resolution*, if a **capacity market participant** has a dispute with the **ISO** about the content of a final capacity market statement of the **capacity market participant** prior to the **ISO** issuing that final capacity market statement on a final basis in accordance with subsection 10(1)(c), then the **capacity market participant** and the **ISO** must make reasonable efforts to informally resolve the dispute in accordance with subsection 2 of Section 103.2 of the **ISO rules**, *Dispute Resolution*12.

Formal Dispute Periods

1617 The **ISO** must, each January, publish on the AESO website each January the formal dispute submission periods for each of the **settlement periods** offor that calendar year.

Capacity Market Statement Formal Disputes After Final Capacity Market Statement

1718**(1)** Subject to subsection 15, aA **capacity market participant** maymust not, subject to subsection 17, formally dispute a final capacity market statement for a **settlement period** until the **ISO** has issued the final capacity market statement on a final basis for that **settlement period** in accordance with subsection 10(1)(c).12.

(2) IfThe **capacity market participant** must, if a **capacity market participant** desires to proceedproceeds with a formal dispute, then the **capacity market participant** must submit a written dispute notice to the **ISO** in accordance with subsection 3 of Section 103.2 of the **ISO rules**, *Dispute Resolution*, prior to the expiry of the formal dispute submission period for the **settlement period**.

(3) The **ISO** must not make adjustments to any amounts of any final capacity market statement issued on a final basis unless the adjustments result from a formal dispute resolution written agreement between the **ISO** and the **capacity market participant** or from a determination under subsection 5(3) of Section 103.2 of the **ISO rules**, *Dispute Resolution.*

(4) The **ISO** must, if the terms of a formal dispute have been agreed to in principle between the **ISO** and the **capacity market participant**, deliver a written agreement to the **capacity market participant** detailing the dispute resolution terms, the subject **settlement period**, a summary of adjustments, and the requirement that the **capacity market participant** confirms and agrees to the formal dispute resolution by signing and returning the written agreement to the **ISO**.

(5) A **capacity market participant** must, no later than the close of business on the ~~thirtieth (~~30th~~)~~ **business day** from the receipt of the written agreement from the **ISO**, reply by signing and accepting the written agreement and once signed and accepted and redelivered to the **ISO**, the **capacity market participant** will not have further recourse under Section 103.2 of the **ISO rules**, *Dispute Resolution* ~~or any other legal or equitable remedy with respect to the formal dispute.~~.

(6) The **ISO** may deem that the **capacity market participant** has accepted the written agreement if the **capacity market participant** fails to respond by the 30th **business day**.

(7) The **capacity market participant** must not have further recourse under Section 103.2 of the **ISO rules**, *Dispute Resolution*~~, or any other legal or equitable remedy~~ with respect to the formal dispute if the written agreement is accepted or deemed to be accepted pursuant to subsection ~~17(7~~18(6).

(8) A **capacity market participant** may, if the **capacity market participant** rejects the written agreement by delivering a rejection notice to the **ISO** by the 30th **business day**, seek to have the formal dispute resolved by a determination under Section 103.2 of the **ISO rules**, *Dispute Resolution*.

Capacity Market Statement Adjustments for Resolved Disputes

~~18~~19**(1)** The **ISO** must, if an informal dispute is resolved under subsection ~~15~~16, adjust the final capacity market statement for that **settlement period** to include any resolved line item adjustments and the adjusted net amount payable by or to the **capacity market participant**.

(2) The **ISO** must, if a formal dispute is resolved under subsection ~~17~~18, adjust the next final capacity market statement after the resolution to include any resolved line item adjustments and the adjusted net amount payable by or to the **capacity market participant**.

ISO Recourse to Section 103.7 of the ISO Rules, *Financial Default and Remedies*

~~19~~20 The **ISO** may, in the event that the **capacity market participant** fails to pay an invoice or any dollar amount under this section 103.9, deem such failure to be a **financial obligation** default event which will allow the **ISO** to have recourse to the rights and remedies of the **ISO** under Section 103.7 of the **ISO rules**, *Financial Default and Remedies*.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 100 General
Division 103 Administration
Section 103.10 Capacity Award Calculation

External Consultation Draft
~~August 3~~October 22, 2018

Applicability

1 Section 103.10 applies to

(a) the **ISO**.

Requirements

Capacity ~~Payment~~Award Calculation

2 The **ISO** must calculate the monthly capacity ~~payment~~award, in Canadian dollars, for an asset subject to a **capacity commitment** as follows:

~~*Capacity Payment = { [C_b * P_b * 1000] - [(C_b – C_{r1}) * P_{r1} * 1000] - [(C_{r1} – C_{r2}) * P_{r2} * 1000] } / number of months in obligation period*~~

$$capacity\ award = \{[commitment_b \times price_b \times 1000] - [(commitment_b - commitment_{r1}) \times price_{r1} \times 1000] - [(commitment_{r1} - commitment_{r2}) \times price_{r2} \times 1000]\} \div 12$$

where~~, for an **obligation period**~~:

~~C_b~~(a) *Commitment $_b$* equals the **capacity commitment** in MW after the **base auction**;

~~P_b~~(b) *Price $_b$* equals the clearing price in $/kW-year of the **base auction**;

~~C_{r1}~~(c) *Commitment $_{r1}$* equals the **capacity commitment** in MW after the first **rebalancing auction**, which is also the last **rebalancing auction** for the first 3 **obligation periods**;

~~P_{r1}~~(d) *Price $_{r1}$* equals the clearing price in $/kW-year of the first **rebalancing auction**, which is also the last **rebalancing auction** for the first 3 **obligation periods**;

~~C_{r2}~~(e) *Commitment $_{r2}$* equals the **capacity commitment** in MW after the second **rebalancing auction**, in all other cases; and

~~P_{r2}~~(f) *Price $_{r2}$* equals~~-~~:

(i) 0 $/kW-year, in the case of the first 3 **obligation periods**; and

(ii) the clearing price in $/kW-year of the second **rebalancing auction**, in all other cases.

Transition variable

3 The **ISO** must:

(a) notwithstanding subsection 2(e), set *Commitment $_{r2}$* as 0 MW when calculating the monthly capacity award in subsection 2 for the first 3 **obligation periods**; and

(b) remove subsection 3 on or about the day the settlement for the third **obligation period** is concluded.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 100 General
Division 103 Administration
Section 103.11 Capacity Market Financial Security Requirements

External Consultation Draft
~~August 31~~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 ~~it~~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** ~~may, if, at any time prior to or during an **obligation period**, the **ISO** is of~~ must calculate the ~~opinion that~~security for the payment adjustment balance limit for an asset subject to a **capacity commitment** as follows:

$$payment\ adjustment\ balance\ security =$$

$$payment\ adjustment\ balance\ limit - forecast\ payment\ adjustment\ balance$$

where:

~~, as~~(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 ~~Section 103.9 of the **ISO rules**, *Capacity Market Financial Settlement*, in respect of any asset, may, at any time, exceed a limit calculated as follows~~the following formula:

$$payment\ adjustment\ balance\ limit =$$

$$capacity\ award\ \times negative\ factor\ \times 12 \times 1.3$$

where:

~~*PAB limit* =~~ (a) *capacity award* is the capacity ~~payment,~~award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation* for ~~such~~the next **obligation period** ~~* 12 *1.3~~; and

~~calculate an adjustment to the amount of~~ (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 ~~which the **capacity market participant** may be required to provide~~ to the **ISO** in ~~respect of such~~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.

(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** ~~as follows:~~

~~*adjusted security requirement* = security requirement less the total amount of **financial security** currently held by the **ISO** in respect of such asset pursuant to this subsection 3(1)~~

~~where:~~ is

~~*security requirement* = the~~ greater ~~of:~~

~~(i) the estimated payment adjustment balance less~~than the capacity award for the ~~*PAB limit*~~current **obligation period**; and

~~(ii) $0.~~

~~**(2)**~~ (b) requested by the **capacity market participant**.

(6) The **ISO** may, ~~if the amount of the adjusted security requirement determined pursuant to subsection 3(1) is a positive number~~at the start of an **obligation period**, request ~~the applicable~~ a **capacity market participant** to provide **financial security** to the **ISO** in the amount of the ~~adjusted security requirement on or prior to the date specified in any notice to the **capacity market participant** from the **ISO**, which date shall in all events be not less than 5 **business days** following the delivery of such notice.~~capacity award multiplied by 12 for an asset:

~~**Financial Security – Change**~~(a) subject to ~~**Capacity Payment**~~

~~**4(1)** The **ISO** may, if there is any estimated change in the amount of the~~a **capacity** ~~payment,~~**commitment** and with a capacity award of $0 calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation* ~~for an asset for any **obligation period**, calculate and must calculate upon any request of the applicable **capacity market participant** an adjustment to the amount of **financial security** which the **capacity market participant** may be required to provide to the **ISO** in respect of such **obligation period** as follows:~~; or

~~*adjusted security requirement* = security requirement less the total amount of **financial security** currently held by the **ISO** in respect of such asset pursuant to this subsection 4(1)~~

~~where:~~

~~*security requirement* = the greater of:~~

~~(i) the estimated payment adjustment balance less the PAB limit; and~~

~~(ii) $0; and~~

~~*PAB limit* = the~~(b) with a negative capacity ~~payment,~~award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment Calculation~~ Award Calculation* ~~for such **obligation period** (which shall be $0 if such asset is not subject to a **capacity commitment** for such **obligation period**) * 12 * 1.3~~.

(~~2~~ 7) The **ISO** may, ~~if the amount of the adjusted security requirement determined pursuant to subsection 4(1) is a positive number, request the applicable~~during an **obligation period** and upon capacity payments made by the **capacity market participant** ~~to provide **financial security**~~ to the **ISO** in ~~the~~ respect to the asset referred to in subsection 3(5), reduce the amount of financial security required by the amount of ~~the adjusted security requirement on or prior to the date specified in~~ any ~~notice to the **capacity market participant** from the **ISO**, which date shall in all events be not less than 5 **business days** following the delivery of such notice.~~

~~**(3)** The **ISO** may, if requested~~payments made by the **capacity market participant**~~, if the amount of the adjusted security requirement determined pursuant to subsection 4(1) in respect of an **obligation period** is a negative number, reduce the amount of **financial security** of the **capacity market participant** as of the commencement of such **obligation period** by the adjusted security requirement.~~ in respect to such asset.

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

~~**5(1)** A **capacity market participant** must, prior to participating in a **base auction** or **rebalancing auction** and~~ **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 ~~pursuant to this subsection 5 and subsection 6, as applicable,~~in subsections 4(3), 4(5) and 4(6) in respect of an asset with~~:~~

~~(a)~~ **new capacity**~~;~~

~~(b)~~ , refurbished **capacity**~~,~~ or

~~(c)~~ incremental **capacity**~~,~~

that is not energized and **commissioned** at the time of the **base auction** or **rebalancing auction**.

~~(2~~(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 ~~for the volume of **uniform capacity value**~~ from an asset with **new capacity** ~~that a **capacity market participant** must **offer** in a **base auction** or **rebalancing auction** as follows~~in accordance with the following formula:

~~*security requirement = (gross-CONE * 1 / CRF) * 5% * **uniform capacity value***~~

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

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;*

~~CRF is the~~ (b) *capital recovery factor* ~~specified~~is the value calculated in subsection ~~5(3~~4(4); and

(c) *uniform capacity value* is the volume of **uniform capacity value** assigned to the **capacity market participant** ~~must **offer** for the applicable **base auction** or **rebalancing auction**~~an asset.

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

~~*CRF = {i(1 + i)^n} / {[(1 + i)^n] -1}*~~

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

where ~~i is the~~ :

(a) *discount rate* is the value used in the ~~gross-CONE~~ determination ~~as per Section 207.3 of the **ISO rules**, *Shape of Demand Curve*~~gross-CONE *;* and

~~n is a 20 year~~ (b) *plant life* is 20 years.

(~~4~~5) The **ISO** must calculate the security requirement ~~for the volume of **uniform capacity value** from an asset with refurbished **capacity** that a **capacity market participant** must **offer** in a **base auction** or **rebalancing auction** as follows~~in accordance with the following formula:

~~*security requirement = unit rate * escalation rate * 5% * **uniform capacity value***~~

$$security\ requirement\ =$$

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

where ~~the~~ :

(a) *unit rate* is $200/kW;

(b) *escalation rate* is the ~~current capital cost escalation rate as determined by the **ISO**~~;value calculated in subsection 4(7); and

(c) *uniform capacity value* is the volume of **uniform capacity value** assigned to the **capacity market participant** ~~must **offer** for the applicable **base auction** or **rebalancing auction**~~an asset.

(~~5~~6) The **ISO** must calculate the security requirement ~~for the volume of **uniform capacity value** from incremental **capacity** that a **capacity market participant** must **offer** in a **base auction** or **rebalancing auction** as follows~~accordance with the following formula:

~~*security requirement = unit rate * escalation rate * 5% * **uniform capacity value***~~

$$security\ requirement\ =$$

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

where ~~the~~ :

(a) *unit rate* is $100/kW;

(b) *escalation rate* is the ~~current capital cost escalation rate as determined by the **ISO**~~;value calculated in subsection 4(7); and

~~**uniform**~~(c) *incremental capacity* ~~**value**~~ is the volume of ~~**uniform**~~incremental **capacity** ~~**value from incremental capacity the capacity market participant**~~provided in accordance with Section 206.1, Qualification of Capacity .

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

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

where:

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

(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 ~~– Revised Amounts~~Following a Base Auction or Rebalancing Auction

~~65~~**(1)** The **ISO** must, ~~following~~if a ~~**base auction** or a **rebalancing auction,**~~**capacity market participant** provided the **financial security** in accordance with subsection 4(2), determine the adjusted security requirement ~~of an asset identified in subsection 5(1)~~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 ~~not continue with the retrofit for~~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** ~~failed to~~did not receive a **capacity commitment** ~~for that asset for the applicable **obligation period**~~;

~~(d) $0, if such **rebalancing auction** is~~ in the last **rebalancing auction** ~~for the applicable **obligation period** and that asset~~ ;

(d) $0, if the **capacity market participant** achieved energization and **commissioning**~~;~~ for an asset;

(e) the amount ~~determined~~of security calculated in accordance to subsection 4(3), 4(5~~,~~) and 4(6), if the **uniform capacity** ~~**market participant** received a **capacity commitment**~~**value** for ~~that~~the asset ~~for~~changes from the ~~applicable **obligation period**;~~ prior **base auction** or **rebalancing auction**; or

(f) the amount ~~determined~~of security required for the volume of **capacity commitment** calculated in accordance with subsection ~~6~~5(2), if applicable.

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

~~*security requirement = security rate * **capacity commitment** * max{remaining auctions, 1} / total applicable auctions*~~

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

where:

(a) *security rate* is the rate calculated ~~as per~~in subsection ~~6~~5(3~~), as applicable;~~);

(b) *capacity commitment* is the **capacity commitment** of the asset for the **obligation period** ~~in respect of such **rebalancing auction**~~;

(c) *total* ~~applicable~~ *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 ~~5~~4, to the start of the **obligation period** for which the initial security requirement was provided ~~in respect of~~; 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 ~~this~~the **rebalancing auction** which the reduced security requirement is being calculated ~~and provided for~~, to the start of the **obligation period** for which the reduced security requirement is being calculated ~~and provided in respect of.~~; or

(ii) 1.

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

(a) for an asset with **new capacity** subject to a **capacity commitment** ~~based on **new capacity**~~:

~~*security rate = (gross-CONE * 1 / CRF) * 5%*~~

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

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

~~CRF is the~~ (ii) *capital recovery factor* ~~specified~~is the value calculated in subsection ~~5~~4(3);

(b) for an asset with refurbished **capacity** subject to a **capacity commitment** ~~based on refurbished **capacity**~~:

~~*security rate = unit rate * escalation rate * 5%*~~

$$security\ rate = unit\ rate \times escalation\ rate \times 0.05$$

where ~~the~~ :

(i) *unit rate* is $200/kW; and

(ii) *escalation rate* is the ~~current capital cost escalation rate as determined by the **ISO**~~; value calculated in subsection 4(7);

or

(c) for an asset with incremental **capacity** subject to a **capacity commitment** ~~based on incremental **capacity**~~:

~~*security rate = unit rate * escalation rate * 5%*~~

$$security\ rate = unit\ rate \times escalation\ rate \times 0.05$$

where ~~the~~ :

(i) *unit rate* is $100/kW; and

(ii) *escalation rate* is the ~~current capital cost escalation rate as determined by the **ISO**~~.value calculated in subsection 4(7)**;**

(4) The **ISO** may, following a **rebalancing auction**, adjust the amount of **financial security** a **capacity market participant** ~~must provide~~provided to the **ISO** for an asset in accordance with the amount determined in subsection ~~6~~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

ISO Rules
Part 100 General
Division 103 Administration
Section 103.13 Request for Reconsideration

External Consultation Draft
~~August 31~~October 30, 2018

Applicability

1 Section 103.13 applies to:

(a) a **person** who has received an **ISO** decision ~~pursuant~~on the following grounds:

i. An eligibility decision relating to ~~the categories listed as~~ participation in the capacity market;

ii. A decision requiring participation in a **base auction** or **rebalancing auction**;

iii. A decision relating to the obligations of a specific **capacity market participant** in regards to a **base auction** or **rebalancing auction**; or

iv. Any other decision made prior to a **base auction** or **rebalancing auction** relating to participation by a specific **capacity market participant** with respect to that auction.

(an "**ISO** reviewable ~~decisions in the *Capacity Market Regulation*~~;decision")

~~(a)~~(b) the **Market Surveillance Administrator**, where the decision enumerated in Section 1(a)(i-iv) relates to fair, efficient, and open competition in the capacity market; and

~~(b)~~(c) the **ISO**.

Requirements

Submission of Request for Reconsideration

2 A **person** or the **Market Surveillance Administrator** seeking reconsideration of an **ISO** reviewable decision must, in the manner the **ISO** specifies, submit to the **ISO** a request for reconsideration within 5 **business days** of receiving the **ISO** reviewable decision.

Content of Request for Reconsideration

3(1) The **person** or the **Market Surveillance Administrator** must ensure that the request for reconsideration referred to in subsection 2:

(a) is signed by:

(i) if the **person** is a corporation, an officer of the corporation;

(ii) if the **person** is a partnership, one of its partners;

(iii) if the **person** is an individual, the individual in their personal capacity; or

(iv) the **Market Surveillance Administrator**;

(b) contains an attestation that the request for reconsideration is complete and accurate; and

~~(~~(c) includes a concise statement identifying the following:

(i) the relevant part of the **ISO** reviewable decision being reconsidered;

(ii) the facts on which the person or the **Market Surveillance Administrator** relies;

(iii) the grounds for disputing the **ISO** reviewable decision;

(iv) the arguments supporting each of the grounds for the request for reconsideration;

(v) the relief requested; and

(vi) a schedule listing any supplemental documentation submitted with the request for reconsideration.

(2) The **ISO** may request that the **person** or the **Market Surveillance Administrator** provide additional information as it pertains to the request for reconsideration submitted in accordance with subsection 3(1).

Request Notification

4 The **ISO** must, if a request for reconsideration is received from the **Market Surveillance Administrator**, within 1 **business day** of receiving the request for reconsideration, provide a copy of the request to a directly affected **person**.

5 The **ISO** must, if a request for reconsideration is received from a **person**, within 1 **business day** of receiving the request for reconsideration, provide a copy of the request to the **Market Surveillance Administrator** if, in the opinion of the **ISO**, the request for reconsideration relates to fair, efficient, and open competition in the capacity market.

Reconsideration Decision

6 The **ISO** must review the request for reconsideration and issue a written decision to the **person** or the **Market Surveillance Administrator** making the request for reconsideration within 5 **business days** of receiving the request referred to in subsection 2.

7 The **ISO** must, as soon as reasonably practicable, upon making a decision regarding a request for reconsideration received from the **Market Surveillance Administrator**, provide a copy of the reconsideration decision to the **Market Surveillance Administrator** and any directly affected **person**.

8 The **ISO** must, as soon as reasonably practicable, upon making a decision regarding a request for reconsideration received from a **person**, provide a copy of the reconsideration decision to:

(a) the **person** who submitted the request; and

(b) the **Market Surveillance Administrator** if, in the opinion of the **ISO**, the request for reconsideration relates to fair, efficient, and open competition in the capacity market.

Revision History

Date	Description
xxxx-xx-xx	Initial release

ISO Rules
Part 200 Markets
Division 201 General
Section 201.10 Capacity Market Participant Registration

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 201.10 applies to:

(a) a **person** with an asset that the **ISO** has qualified pursuant to Section 206.1 of the **ISO rules**, *Qualification of Capacity*;

(b) a **pool participant** with a **generating unit**~~,~~ or **aggregated generating ~~facility or energy storage~~ facility** with a **maximum capability** equal to or greater than 1 MW, unless such **generating unit** or **aggregated generating facility** is the subject of a renewable electricity support agreement in connection with rounds 1, 2 or 3 of the Renewable Electricity Program;

(c) a **capacity market participant**; ~~and~~

(d) a **legal owner** of an asset that is on an **ISO** list referred to in ~~the capacity market;~~subsection 3; and

(e) the **ISO**.

Requirements

Capacity Market Participant

2 ~~Each~~A **person** or **pool participant** must register a **capacity market participant** ~~in the manner~~with the **ISO** ~~specifies~~within the timelines specified by the *Capacity Market Auction Guidelines*.

ISO Requirement to Maintain Lists

3 The **ISO** must maintain and make available on the AESO website, one or more lists containing up to date information on the **capacity market participant**, any **agents** and associated assets.

Capacity Market Participant Updates

4 A **capacity market participant** must, ~~if it is on the **ISO** list set out in subsection 3,~~ provide updated information to the **ISO**, as soon as reasonably practicable, regarding its **capacity market participant** registration, ~~its~~ **agents** and ~~any asset listed opposite the **capacity market participant** on the **ISO** list~~associated assets.

Timely Information ~~from Legal Owner~~

5(1) A **legal owner** of an asset that is on the **ISO** list ~~set out~~referred to in subsection 3 must, if ~~it~~the **legal owner** is not the **capacity market participant** for that asset, provide timely and complete information to the **capacity market participant** for such asset to enable the **capacity market participant** to comply with its obligations under the **ISO rules**.

(2) A **pool participant** of an asset that is on the **ISO** list referred to in subsection 3 must, if the **pool participant** is not the **capacity market participant** for that asset, provide timely and complete information to the **capacity market participant** for such asset to enable the **capacity market participant** to comply with its obligations under the **ISO rules**.

Termination of Capacity Market Participant

6 The **ISO** may terminate a **capacity market participant** registration if there are no assets associated with the **capacity market participant** ~~retires all assets listed opposite the **capacity market participant** on the **ISO** list~~.

Liability of Capacity Market Participant

7 A **capacity market participant** that is or may become liable under the **ISO rules** in connection with its activities as a **capacity market participant** remains liable after the date of retirement of its associated asset despite ceasing to be a **capacity market participant**.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 200 Market
Division 201 General
Section 201.11 Appointment of Agent for the Capacity Market

External Consultation Draft
~~August 3~~October 22, 2018

Applicability

1 Section 201.11 applies to:

(a) a **capacity market participant**; and

(b) the **ISO**.

Requirements

Appointment of Agent

2(1) A **capacity market participant** may apply to the **ISO**, in the manner the **ISO** specifies, to appoint an **agent** to act on behalf of the **capacity market participant** ~~for purposes of participating in the capacity market~~.

(2) The **ISO** must approve the appointment of the **agent** if the **ISO** is satisfied that the **capacity market participant** has duly appointed and authorized the **agent** to act on behalf of and bind the **capacity market participant** with regard to obligations and other activities in the capacity market.

(3) The **ISO** must not, notwithstanding subsection 2(2), approve the appointment of an **agent** if the subject matter of the agency extends, in whole or in part, to the preferential sharing of records in violation of or noncompliance with the provisions of the *Fair, Efficient and Open Competition Regulation*, unless there is an exception to the prohibition against the sharing of records as specified in that regulation.

(4) The **ISO** must post on the AESO website a list of all **agents** appointed under this section 201.11.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 200 Market
Division 201 General
Section 201.12 Capacity Market Block Allocation

External Consultation Draft
~~August 3~~October 22, 2018

Applicability

1 Section 201.12 applies to:

(a) the **ISO**.

Requirements

Capacity Block Allocation

2(1) The **ISO** must allocate to each **capacity market participant** one unique identifier for each associated asset.

(2) The **ISO** must, subject to subsection 2(3), allocate ~~7~~to a **capacity ~~blocks~~ to submit an ~~offer~~ and 7 ~~capacity blocks~~ to submit a ~~bid~~ to market participant** for each asset with a **uniform capacity value** equal to or greater than 1 MW~~.~~:

(a) 7 **capacity blocks** to submit an **offer**; and

(b) 7 **capacity blocks** to submit a **bid**.

(3) The **ISO** must, in the case of an asset with refurbished **capacity** that declares to submit ~~two~~2 **offers** in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*, allocate:

(a) ~~one~~1 **capacity block** for the first **offer** referred to in Section 206.4 of the **ISO rules**, *Offers and Bids for Capacity*; and

(b) 7 **capacity blocks** for the second **offer** referred to in Section 206.4 of the **ISO rules**, *Offers and Bids for Capacity*.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 200 Markets
Division 201 General
Section 201.13 Capacity Market Clearing

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 201.13 applies to:

(a) the **ISO**.

Requirements

Auction Clearing

2(1) The **ISO** must, subject to subsection 4, use a clearing process for a **base auction** or **rebalancing auction** that clears **offers** and **bids**~~, as applicable,~~ in a manner that maximizes social surplus ~~with consideration of the following:~~.

(2) The **ISO** must, subject to subsection 4, clear:

(a) ~~-~~ a lower priced **capacity block** in an **offer** ~~will be cleared~~ before a higher priced **capacity block** in an **offer**; and

(b) ~~-~~ a higher priced **capacity block** in a **bid** ~~will be cleared~~ before a lower priced **capacity block** in a **bid**~~;~~

~~(c)~~ if such clearing maximizes social surplus.

(3) The **ISO** must, when multiple ~~equivalent~~ **~~flexible~~capacity blocks** are submitted at the clearing price and result in the same social surplus, clear such ~~equivalent~~ **capacity blocks** based on the following in order of priority:

(a) clear volumes from the **flexible blocks** over volumes from the **inflexible blocks**;

(b) clear the **flexible blocks** ~~as follows;~~

~~(i)~~ on a pro-rata basis~~, if all pro-rated quantities in MW remain whole numbers; or~~ and randomize rounding of the **flexible blocks** to a positive integer;

~~(ii) on a random basis, in all other cases;~~

~~(d) when multiple equivalent **inflexible blocks** are submitted at the clearing price and result in the same social surplus,~~ c) clear ~~such equivalent~~the smaller **inflexible blocks** ~~as follows:~~

~~(i) clear a combination of the smallest volume~~before the larger **inflexible blocks**~~, if possible; or~~;

~~(ii) on a random basis, in all other cases; and~~

~~(e) when multiple~~ d) randomly clear the equivalent ~~**flexible blocks** and~~ **inflexible blocks** ~~are submitted at the clearing price and result in the same social surplus, clear such equivalent **flexible blocks** and **inflexible blocks** on a random basis~~.

(~~2~~4) The **ISO** ~~may perform~~must, in the ~~clearing process more than once prior to~~case where a **capacity market participant** submits 2 offers for an asset with refurbished **capacity** in accordance with Section 206.4 of the **ISO rules**, *Offers and Bids for Capacity* and the first offer does not clear the **base auction**, replace the first **offer** with the second **offer**, before establishing the clearing price.

Transfer Path Limits Calculation

3 ~~-~~ **(1)** The **ISO** must ~~determine the limits, for~~ select the 250 tightest supply cushion hours from each 12 **month** consecutive period dating November 1 to October 31 in the previous 5 years as follows:

(a) calculate the supply cushion for every hour;

(b) rank all hours based on supply cushion in ascending order;

(c) within the order referred to in subsection 3(1)(b), rank hours with equivalent supply cushion in ascending order from the most recent to the most distant of time;

(d) remove any hours in which there was a state of market suspension; and

(e) select the first 250 hours after ranking and removing hours in accordance with subsections 3(1)(b) through 3(1)(d).

(2) The **ISO** must, for a **base auction** or **rebalancing auction**, determine the limits on ~~each of~~ the British~~-~~ Columbia transfer path, Montana transfer path, ~~the~~ Saskatchewan transfer path, and the combined~~-~~ British Columbia and Montana transfer paths by averaging the following hourly limits for each of the ~~above as follows:~~

~~for the British Columbia transfer path, for each of the~~ 250 tightest supply cushion hours ~~per year for the previous 5 years~~identified in subsection 3(1) prior to the **base auction** or **rebalancing auction**, as applicable~~,~~:

(a) for the British Columbia transfer path, by assigning ~~a~~an hourly limit based on the minimum of:

(i) the hourly import **available transfer capability** for the British Columbia transfer path; or

(ii) the hourly long-term firm transmission service on the British Columbia transfer path~~.~~;

(b) for the Montana transfer path, ~~for each of the 250 **tightest supply cushion hours** per year for the previous 5 years to the **base auction** or **rebalancing auction**, as applicable,~~ by assigning ~~a~~an hourly limit based on the minimum of:

(i) the hourly import **available transfer capability** for the Montana transfer path; or

(ii) the hourly long-term firm transmission service on the Montana transfer path~~.~~;

(c) for the Saskatchewan transfer path, ~~for each of the 250 **tightest supply cushion hours** per year for the previous 5 years to the **base auction** or **rebalancing auction**, as applicable,~~ by assigning ~~a~~an hourly limit based on the minimum of:

(i) the hourly import **available transfer capability** for the Saskatchewan transfer path; or

(ii) the hourly long-term firm transmission service on the Saskatchewan transfer path~~.~~;

and

(d) for the combined British Columbia and Montana transfer ~~paths, for each of the 250 **tightest supply cushion hours** per year for the previous 5 years to the **base auction** or **rebalancing auction**, as applicable~~path, by assigning ~~a~~an hourly limit based on the minimum of:

(i) the ~~combined~~hourly import **available transfer capability** for the combined British Columbia and Montana transfer ~~paths~~path prior to LSSi arming; or

(ii) combined hourly long-term firm transmission for the British Columbia and Montana transfer paths.

(3) The **ISO** may, in the event that the **ISO** determines that the methodology for determining the transfer path limits in subsection 3(2) is no longer representative, apply an alternative methodology.

Consideration of Transmission Market Constraint and Transfer Path Limits in Clearing Process

4(1) The **ISO** may, in the event that the **ISO** determines that the electric energy associated with an **offer** may ~~be unable to~~not be delivered to the **interconnected electric system** during the **obligation period** due to either a limit on the **transmission ~~market constraint~~system**, or a limit on an Alberta **intertie** determined in accordance with ~~subsection~~subsections 3~~:~~

~~(a) not~~(2) or 3(3) clear the ~~**offer**;~~

~~(b) clear a portion of the **offer**; or~~

~~(c) if there are multiple **flexible blocks** impacted by~~offers behind the ~~same **transmission market constraint** or limit on an Alberta **intertie** either:~~

~~(i) not clear the **flexible blocks**; or~~

~~(ii) when multiple equivalent **flexible blocks** are submitted at the same price and result~~ limit in ~~the same~~a manner that maximizes social surplus, ~~clear such equivalent **flexible blocks** on a pro-rata basis.~~ without clearing **capacity** from assets behind the limit over the amount of the limit.

(~~d) if there are~~ 2) The **ISO** must, when multiple ~~**inflexible blocks** impacted~~assets are affected by the same limit on the **transmission ~~market constraint~~system** or ~~limit on an~~ Alberta ~~**intertie** either:~~

~~(i) not clear the **inflexible blocks**; or~~

~~(ii) when multiple equivalent **inflexible blocks** are submitted at~~transfer path and the ~~same price~~ **capacity blocks** associated with such assets ~~and~~ result in the same social surplus, clear such **capacity blocks** in the following order of priority:

(a) clear volumes from the **flexible blocks** over volumes from the **inflexible blocks**;

(b) clear the **flexible blocks** on a pro-rata basis and randomize rounding of the **flexible blocks** to a positive integer;

(c) clear the smaller **inflexible blocks** before the larger **inflexible blocks**; and

(d) randomly clear the equivalent **inflexible blocks** ~~on a random basis.~~ .

~~(2) The~~(3) The **ISO** must, in the event that an asset within an aggregated asset is affected by a limit on the **transmission system**, consider the entire aggregated asset to be affected by the limit on the **transmission system**.

(4) Notwithstanding subsections 4(1) through 4(3), the **ISO** may clear **capacity blocks** associated with assets affected by a limit on the **transmission system** or a limit on an Alberta **intertie** in order to maximize social surplus or minimize uplift payments.

(5) The **ISO** must, in the event that **offers** did not clear pursuant to subsections 4(1), 4(2) or 4(3), or for the portion of offers cleared pursuant to 4(4), clear additional **offers** ~~for the equivalent~~from regions not affected by a limit on the **transmission system**, or a limit on an Alberta **intertie**, to ensure that the total volume of **capacity commitments** meets the **~~offers~~** ~~it did not clear~~volume on the final demand curve associated with price determined pursuant to subsection ~~4~~5(1).

(~~3~~6) The **ISO** must, ~~for the~~in respect of an additional **~~offers~~offer** cleared in accordance with subsection 4(~~2~~4), provide to the **capacity market participant** an uplift payment for the difference between the **offer** price and the clearing price, if the **offer** price ~~of such **offers**~~ is higher than the clearing price.

Setting Auction Clearing Price

5(1) The **ISO** must establish the clearing price ~~of~~for a **base auction** or **rebalancing auction**, without consideration of the limits on the **transmission ~~market constraints~~system** or a limit on an Alberta

intertie in subsection 4, at the point on the final demand curve that:

(a) intersects with the supply curve; or

(b) when all the **offers** are below the final demand curve, corresponds to the price above the volume of the last **offer** on the supply curve.

(2) The **ISO** must ensure the supply curve referred to in subsection 5(1) for a **rebalancing auction** reflects:

(a) all previously cleared ~~offers where the entire cleared~~**capacity commitments** for that **obligation period** at $0; and

(b) all **bids** and **offers** ~~are below~~submitted in the ~~demand curve~~**rebalancing auction**.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 200 Markets
Division 201 General
Section 201.14 Capacity Market Offer Control Information

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 201.14 applies to:

(a) a **capacity market participant**.

Requirements

Offer Control Information

2 A **capacity market participant** must, prior to each **base auction** and within the timelines established in the *Capacity Market Auction Guidelines*, submit to the **ISO**~~:~~

~~(a)~~ the **offer control information** for an asset that has been assigned a **uniform capacity value** for the **base auction**~~; and~~, including the quantity in MW of **uniform capacity value** associated with a **person** identified in the **offer control information**.

~~(b) as it relates to the **offer control information** submitted in subsection 2(a), a list of any and all associates of a **market participant**, as defined in subsection 5 of the *Fair, Efficient, and Open Competition Regulation*.~~

Offer Control of Capacity Blocks

3(1) A **capacity market participant** must~~, in~~ submit to the **ISO**:

(a) **offer** ~~that the~~**control information** for any **capacity** ~~**market participant** submits in the~~**block** in an **offer** or **bid** submitted for a **base auction** and the **rebalancing auction**~~, submit for each **capacity block**~~ with a quantity of **uniform capacity value** greater than 0 MW~~:~~; and

~~(a) **offer control information** for such **capacity block**, as applicable; and~~

(b) the quantity of **uniform capacity value** associated with a **person** identified in ~~such **capacity block** to which~~ the **offer control** ~~**information** relates.~~**information** in a **capacity block**, submitted in accordance with subsection 3(1)(a).

(2) A **capacity market participant** must ensure that the **offer control information** submitted in subsection 3(1) aligns with the **offer control information** submitted in subsection 2.

Associates of a Person

4(1) A **capacity market participant** must submit any and all associates of a **person** identified in **offer control information**, where associates of a **person** is calculated in the manner set out in subsection 5(1)(a) of the *Fair, Efficient, and Open Competition Regulation*, in the manner the **ISO** specifies.

(2) A **capacity market participant** must submit an attestation by a corporate officer of the **person** referred to in subsection 2 that the information provided pursuant to subsection 2 is complete and accurate.

Changes to Associates of a Person

5 A **capacity market participant** must provide the **ISO** with updated information, as soon as reasonably practicable, regarding changes to the associates of a **person** referred to in subsection 2(1) and include an attestation as described in subsection 4(2).

Timely Information from a Person

6 A **person** identified in **offer control information**, if such **person** is not the **capacity market participant**, must:

(a) provide such timely and complete information to the **capacity market participant** to enable the **capacity market participant** to comply with the **capacity market participant**'s obligations under subsections 2, 3 and 4; and

(b) provide an attestation to the **capacity market participant** from a corporate officer of the **person** identified in the **offer control information** to enable the **capacity market participant** to comply with the **capacity market participant**'s obligations under subsections 4(2) and 5.

Revision History

Date	Description
xxxx-xx-xx	Initial release

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section ~~206.1~~201.15 applies to:

~~(a) (a **person** seeking to have the **ISO** qualify **new capacity** for the capacity market;~~

) a **capacity market participant** ~~seeking to have the **ISO** qualify refurbished capacity or incremental capacity for the capacity market; and~~;

(b) a **pool participant**;

(c) the **legal owner** of a **generating unit** or **aggregated generating facility** where such **generating unit** or **aggregated generating facility** is the subject of a permanent delist notification; and

(d) the **ISO**.

Requirements

~~**Application for Qualification of Capacity**~~

Request to Temporarily Delist for Economic Reasons

2(1) ~~Each **person** or~~A **capacity market participant** may, within the timelines specified in the *Capacity Market Auction Guidelines* for the last **rebalancing auction** and in the manner the **ISO** specifies, submit to the **ISO** a request to temporarily delist an asset or portion of such asset for the **obligation period** for economic reasons.

(2) A **capacity market participant** must, ~~within the timelines prescribed~~in the request referred to in subsection 2(1), submit:

(a) an attestation from a corporate officer of the **pool participant**:

(i) that the **pool participant** confirms that if the request is approved by the ~~*Capacity Market Auction Guidelines*, provide the **ISO**~~**ISO**, the **delist outage** in the energy market in the **obligation period** will total greater than 210 **days** such that participation in the energy market is for a continuous period of 155 **days** or less;

(ii) the MW volume of the asset that will be subject to a **delist outage** in the energy market; and

(iii) the start date and the end date of the **delist outage** referred to in 2(2)(b)(i);

(b) the **avoidable costs** associated with ~~a completed application including:~~the **delist outage** referred to in subsection 2(2)(a);

~~all~~(c) any information ~~or documents~~ necessary for the **ISO** to calculate the energy and ancillary services offset in accordance with subsection 3(3);

(d) an attestation from a corporate officer of the **legal owner** of the asset that the **avoidable costs** and information referred to in subsections 2(2)(b) and 2(2)(c), respectively, are accurate; and

(e) any other information the **ISO** specifies~~; and~~ as it relates to the request to temporarily delist an asset for economic reasons.

~~(a) any applicable application fee as set out in the *Schedule of ISO Fees*.~~

~~(2~~ISO Review and Approval of Request to Temporarily Delist for Economic Reasons

3(1) The **ISO** ~~may~~must request additional ~~clarification or~~ information ~~regarding the application or supporting documents~~ from ~~each~~ **~~person~~** ~~or~~ the **capacity market participant**~~.~~

~~Declaration for New Capacity~~

~~**3** A **person** must, within the timelines prescribed by the *Capacity Market Auction Guidelines* and in the manner~~ concerning the information provided in accordance with subsection 2(2)(d) where the **ISO** ~~specifies, submit to the **ISO** an attestation from a corporate officer as to whether an asset with the **new capacity** will:~~ determines such information appears unreasonable.

~~(a) permanently delist in accordance with Section 201.15, *Delisting*; or~~

~~(b) continue to participate in the energy and capacity markets,~~

~~in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in the **base auction** or **rebalancing auction**.~~

~~Declarations for Incremental Capacity and Refurbished Capacity~~

~~4(1)~~(2) The **ISO** must exclude all or a portion of the **avoidable costs** submitted pursuant to subsection 2(2)(b) where the **ISO** determines such costs are unreasonable, after requesting additional information in accordance with subsection 3(1).

(3) The **ISO** must calculate the energy and ancillary services offset, as applicable, for the asset during the **obligation period** using the methodology set out in Section 206.11 of **ISO rules**, *Energy and Ancillary Services Offset for Assets*.

(4) The **ISO** must, if it approves a request pursuant to subsection 2(1), provide the **capacity market participant**, within the timelines specified in the *Capacity Market Auction Guidelines* for the last **rebalancing auction**, with a price based on the remaining **avoidable costs** submitted in accordance with subsection 2(2)(b) that have not been excluded in accordance with subsection 3(2), net of the energy and ancillary services offset calculated in accordance with Section 206.11 of **ISO rules**, *Energy and Ancillary Services Offset for Assets*.

Request to Temporarily Delist due to Physical Limitation, Operational Limitation or Delay in Commercial Operation

5(1) ~~A~~ **capacity market participant** ~~must, if it has applied to provide proposed incremental capacity, submit to the **ISO**~~may, within the timelines ~~prescribed by the *Capacity Market Auction Guidelines* and in the manner the ISO specifies, an attestation from a corporate officer as to whether the anticipated **maximum capability** of the asset with incremental capacity will be either:~~

~~(a) the **maximum capability** of the asset had the **capacity market participant** not applied for proposed incremental capacity; or~~

~~(b) remain as the anticipated **maximum capability** accounting for the proposed incremental capacity,~~

~~in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in the **base auction** or **rebalancing auction** for some or all of the proposed incremental capacity.~~

~~**(2)** A **capacity market participant** must, within the timelines prescribed by~~specified in the *Capacity Market Auction Guidelines* and in the manner the **ISO** specifies, submit to the **ISO** ~~an attestation from a corporate officer as to whether an asset with refurbished capacity will:~~a request to temporarily delist an

asset or portion of such asset from the capacity market for the **obligation period** if the asset will be subject to a derate or an outage for a period greater than or equal to 150 continuous **days** in the **obligation period** due to a physical limitation, operational limitation or a delay in **commercial operation** of the asset.

~~(a) permanently delist in accordance with Section 201.15 of the **ISO rules**, *Delisting*; or~~

~~(b) continue to participate in the energy market and capacity market,~~

~~in the event that the~~ **(2)** A **capacity market participant** ~~fails~~must submit the following information to the **ISO** in the request referred to ~~receive a~~in subsection 5(1):

(a) a description of the physical or operational limitation;

(b) a description of any major repairs required to rectify the physical or operational limitation;

(c) if applicable, an order, decision, final rule, opinion or final directive from a regulatory authority specifically mandating the derating of the asset; and

(d) an attestation from a corporate officer of the **legal owner**:

(i) certifying that the **new capacity**, refurbished **capacity** ~~**commitment** for such asset~~or incremental **capacity** will not be in **commercial operation** prior to the **obligation period**; or

(ii) confirming the physical limitation of an existing asset.

(3) A **capacity market participant** must, in the request referred to in subsection 5(1), submit:

(a) confirmation from a corporate officer of the **pool participant**:

(i) that the **pool participant** confirms that if the request is approved by the **ISO**, the **delist outage** in the energy market will be for a continuous period in the **obligation period** which must be greater than 150 days;

(ii) the MW volume of the asset that will be subject to a **delist outage** in the energy market;

(iii) a description of the physical or operational limitation of the asset; and

(iv) the start date and the end date of the **delist outage** referred to in 5(2)(c)(i);

and

~~**base auction** or~~ (b) any other information the **ISO** specifies as it relates to the request to temporarily delist the asset.

ISO Approval of Request to Temporarily Delist due to a Physical or Operational Limitation

6(1) The **ISO** must approve a request to temporarily delist an asset due to a physical or operational limitation if:

(a) the **ISO** is satisfied that the request referred to in subsection 5(1) is complete; and

(b) the **delist outage** referred in subsection 5(2)(a) is greater than 150 continuous days in the **obligation period**.

Delist Outage

7(1) A **pool participant** must submit a **delist outage** that corresponds to the outage declared in accordance with subsection 2(2)(a) if the **offer** referred to in subsection 4 does not clear in the last **rebalancing auction**.

~~**Declaration for Load Asset**~~

~~**5(1)** A **person** must, within~~**(2)** A **pool participant** must not submit a **delist outage** that corresponds to the outage declared in accordance with subsection 2(2)(a) if the **offer** referred to in subsection 4 clears in the last **rebalancing auction**.

(3) A **pool participant** must, if the **ISO** approves a request pursuant to subsection 6**,** submit a **delist outage** that corresponds to the outage declared in accordance with subsection 5(2)(a).

Request to Change Delist Outage

8 A **pool participant** must submit a request to the **ISO** to change the **delist outage** submitted in accordance with subsection 7(3).

Restriction on Ability to Temporarily Delist

9 A **capacity market participant** must not temporarily delist an asset:

(a) for economic reasons for more than 2 consecutive **obligation periods**; or

(b) for physical limitation, operational limitation or delay in commercial operation for more than 2 consecutive **obligation periods**.

Permanent Delist Notification

10(1) A **capacity market participant** may, in accordance with the timelines established in the *Capacity Market Auction Guidelines* for the **base auction** or the first **rebalancing auction** for an **obligation period**, and in the manner the **ISO** specifies, submit to the **ISO** a notification to permanently delist an asset or portion of such asset.

(2) A **capacity market participant** must, in the notification referred to in subsection 10(1), submit:

(a) the MW volume from the asset that the **capacity market participant** is permanently delisting; and

(b) in the case of a **generating unit**, **aggregated generating facility** or **energy storage facility**:

(i) an attestation from a corporate officer of the **pool participant**:

(A) that the **pool participant** confirms that the MW volume referred to in subsection 10(2)(a) will be removed from the energy market on or before the first **day** of June in the **obligation period**; and

(B) the date that the MW volume from the asset will be removed from the energy market.

(ii) an attestation from a corporate officer of the **legal owner**:

(A) that the **legal owner** confirms that the MW volume referred to in subsection 10(2)(a) will be removed from the energy market on or before the first **day** of June in the **obligation period**; and

(B) the date that the MW volume from the asset will be removed from the energy market.

(3) A **capacity market participant** may not revoke a notification to permanently delist after it has been submitted to the **ISO** in accordance with subsections 10(1) and 10(2), unless otherwise agreed to by the **ISO**.

Publication Requirement

11 The **ISO** must publish on the AESO website in accordance with the timelines ~~prescribed by~~established in the *Capacity Market Auction Guidelines* ~~and in the manner the **ISO** specifies, declare to the **ISO** a **firm consumption level** if the **person** is seeking to have the **ISO** qualify a load asset providing a **firm consumption level** for the capacity market.~~

~~**(2)** A **person** must, within the timelines prescribed by~~for a **base auction** or **rebalancing auction**, as applicable, the volume of approved temporary delist requests and permanent delist notifications on an aggregate basis in categories the **ISO** specifies in the *Capacity Market Auction Guidelines* ~~and in the manner the **ISO** specifies, declare to the **ISO** a **guaranteed load reduction** if the **person** is seeking to have the **ISO** qualify a load asset providing a **guaranteed load reduction** for the capacity market.~~

~~**Declaration for Import Asset**~~

~~**6** A **person** must, within the timelines prescribed by the *Capacity Market Auction Guidelines* and in the manner the **ISO** specifies, declare to the **ISO** a volume in MW from an import asset, which is less than or equal to the amount of firm transmission, that the **person** is seeking to have the **ISO** qualify for the capacity market.~~

~~**Qualification of New Capacity, Incremental Capacity and Refurbished Capacity**~~

~~**7(1)** The **ISO** must, based on the information in the application and any supporting documents provided pursuant to subsection 2, be satisfied that the asset:~~

~~(a) will be capable of providing energy to or reducing consumption from the **interconnected electric system**;~~

~~(b) has a **uniform capacity value** greater than or equal to 1 MW;~~

~~(c) will be:~~

~~(i) developed in accordance with a project plan and timeline that aligns with the critical milestones established by the **ISO**; and~~

~~(ii) energized and commissioned prior to the **obligation period**.~~

~~(d) is not a **source asset** that is the subject of a renewable electricity support agreement in connection with rounds 1, 2 or 3 of the Renewable Electricity Program;~~

~~(e) is not energy efficiency;~~

~~(f) in the case of a load asset:~~

~~(i) can or will be able to reduce demand during the **obligation period** in a way that is measureable by the **ISO**; and~~

~~(ii) is or will be a retail or self-retail asset;~~

(g) in the case of an **energy storage facility**, is or will be capable of maintaining energy production at it **uniform capacity value** for a minimum of 4 hours;

(h) in the case of an import asset:

(i) has firm transmission from the import asset to the Alberta border for the duration of the **obligation period**;

(ii) is not participating as non-recallable capacity in a resource adequacy program of another jurisdiction; and

(iii) will be curtailed on a pro-rata basis by the **balancing authority** of the jurisdiction in which the import asset is located in when load, which is firm, is curtailed.

(i)in the case of an aggregation of assets:

(i) has a **uniform capacity value** less than or equal to the **maximum capability** of the largest generating unit in Alberta multiplied by 0.85;

(ii) has or will have the appropriate metering the **ISO** specifies for each asset in the aggregation;

(iii) is comprised of assets that are either exclusively:

(A) **generating units** or **aggregated generating facilities** located within Alberta;

(B) load assets providing a **firm consumption level** located within Alberta; or

(C) load assets providing a **guaranteed load reduction** located within Alberta;

and,

(iv) is not comprised of any asset that will contribute capacity individually, or as part of another aggregation, to the capacity market;

(j)in the case of incremental capacity, will be retrofitted in a manner that will, in the opinion of the **ISO**, increase the **maximum capability** of the asset by an amount in MW that is:

(i) greater than or equal to 1 MW; and

(ii) less than or equal to the greater of:

(A) 15% of the asset's **maximum capability**; or

(B) 40 MW above the asset's **maximum capability**.

(k) in the case of refurbished capacity, will be retrofitted in a manner that will, in the opinion of the **ISO**, result in either:

(i) an increase in the asset's **maximum capability** by an amount exceeding the greater of:

(A) 15% of the asset's **maximum capability**; or

(B) 40 MW above the asset's **maximum capability**; or

(ii) a capital investment of greater than or equal to $200 per kW of the asset's current **maximum capability** multiplied by a capital cost escalation rate that is specified by the **ISO**.

(2) The **ISO** may, in a determination made pursuant to subsection 4(1)(k)(ii), reject any cost information submitted by the **capacity market participant** if the **ISO** determines that such costs are unreasonable.

(3) The **ISO** must qualify an asset with **new capacity,** refurbished capacity or incremental capacity for the capacity market if:

(a) the application provided pursuant to subsection 2 is complete; and

(b) the **ISO** is satisfied pursuant to subsection 7(1), as applicable.

(4) The **ISO** must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, notify each **person** or **capacity market participant** as to whether the **new capacity,** refurbished capacity or incremental capacity is qualified for the capacity market.

Revision History

Date	Description
yyyy-mm-dd	Initial release

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.1 applies to:

(a) a **person** seeking to have the **ISO** qualify **new capacity** for the capacity market;

(b) a **capacity market participant** ~~seeking to have the **ISO** qualify refurbished capacity or incremental capacity for the capacity market~~; and

(c) the **ISO**.

Requirements

Application for Qualification of Capacity

2~~(1) Each~~ A **person** or **capacity market participant** seeking to qualify an asset for the capacity market must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, provide the **ISO** with ~~a completed application including~~:

~~(a) all information or documents that the **ISO** specifies; and~~

(a) ~~any applicable~~a completed application, where such application is available on the AESO website; and

(b) the application fee ~~as~~ set out in the *Schedule of ISO Fees*, as applicable.

~~**(2)**The **ISO** may request additional clarification or information regarding the application or supporting documents from each **person** or **capacity market participant**.~~ **Declarations**

~~**Declaration**~~ for New Capacity, Incremental Capacity and Refurbished Capacity

3(1) A **person** must, within the timelines prescribed by the *Capacity Market Auction Guidelines* ~~and in the manner the **ISO** specifies~~, submit to the **ISO** ~~an attestation~~a verification from a corporate officer as to whether an asset with ~~the~~ **new capacity**, in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in a **base auction** or **rebalancing auction**, will:

(a) permanently delist in accordance with Section 201.15 of the **ISO rules**, *Delisting*; or

(b) continue to participate in the energy and capacity markets~~,~~.

~~in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in the **base auction** or **rebalancing auction**.~~

~~**Declarations for Incremental Capacity and Refurbished Capacity**~~

~~4(1~~(2) A **capacity market participant** must, ~~if it has applied to provide proposed incremental capacity, submit to the **ISO**,~~ within the timelines prescribed by the *Capacity Market Auction Guidelines* ~~and in the manner~~, submit to the **ISO** ~~specifies, an attestation~~a verification from a corporate officer as to whether the anticipated **maximum capability** of the asset with incremental **capacity** ~~will be either:~~

~~(a) the **maximum capability** of the asset had the **capacity market participant** not applied for proposed incremental capacity; or~~

~~(b) remain as the anticipated **maximum capability** accounting for the proposed incremental capacity,~~

, in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in the **base auction** or **rebalancing auction** for ~~some or~~ all or a portion of the ~~proposed~~

incremental **capacity**~~.~~, will be either:

(a) ~~(2~~the **maximum capability** of the asset without the addition of the incremental **capacity**; or

(b) the anticipated **maximum capability** with the addition of the incremental **capacity**.

(3) A **capacity market participant** must, within the timelines prescribed by the *Capacity Market Auction Guidelines* ~~and in the manner the **ISO** specifies~~, submit to the **ISO** ~~an attestation~~a verification from a corporate officer as to whether an asset with refurbished **capacity** ~~will:~~

~~(a) , permanently delist in accordance with Section 201.15 of the **ISO rules**, *Delisting*; or~~

~~(b) continue to participate in the energy market and capacity market,~~

in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in the **base auction** or **rebalancing auction**~~.~~, will:

(a) permanently delist in accordance with Section 201.15 of the **ISO rules**, *Delisting*; or

continue to participate in the energy ~~**Declaration for Load Asset**~~

(b) ~~**5(1**~~and capacity markets.

(4) A **person** must, within the timelines prescribed by the *Capacity Market Auction Guidelines* ~~and in the manner the **ISO** specifies~~, declare to the **ISO** ~~**a firm consumption level** if~~ the intended interconnection location for an asset with **new capacity**.

Declaration for a Load Asset

4(1) A **person** ~~is~~ seeking to have the **ISO** qualify **new capacity** or incremental **capacity** from a load asset providing a **firm consumption level** ~~for the capacity market.~~

~~**(2)** A **person**~~ must, within the timelines prescribed by the *Capacity Market Auction Guidelines* and in the manner the **ISO** specifies, declare to the **ISO** ~~a **guaranteed load reduction** if the **person** is seeking to have the **ISO** qualify a load asset providing a **guaranteed load reduction** for the capacity market.~~:

~~**Declaration for Import Asset**~~

(a) ~~**6**~~the **firm consumption level** for the asset; and

(b) the qualified baseline reflecting the expected average consumption of a load asset during the **obligation period**.

(2) A **person** seeking to have the **ISO** qualify **new capacity** or incremental **capacity** from a load asset providing a **guaranteed load reduction** must, within the timelines prescribed by the *Capacity Market Auction Guidelines* ~~and in the manner the **ISO** specifies~~, declare to the **ISO** a **guaranteed load reduction** reflecting the volume of electric energy in MW that the load asset will reduce consumption by when subject to a **dispatch** .

Declaration for an Import Asset

5 A **person** seeking to have the **ISO** qualify an import asset must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, declare to the **ISO** a volume in MW of **new capacity** or incremental **capacity** from an import asset , which ~~is~~must be less than or equal to the amount of firm transmission ~~, that the **person** is seeking to have the **ISO** qualify for the capacity market.~~ held by such **person**.

Qualification of ~~New~~an Asset for the Capacity~~, Incremental Capacity and Refurbished Capacity Market~~

~~7~~6**(1)** The **ISO** must, based on the ~~information in the~~ application ~~and any supporting documents~~ provided pursuant to subsection 2, be satisfied that ~~the asset~~:

(a) the asset will be capable of providing electric energy to or reducing consumption from the **interconnected electric system**;

(b) the asset has a **uniform capacity value** greater than or equal to 1 MW prior to any rounding;

(c) the asset will be:

(i) developed in accordance with a project plan and timeline that aligns with the ~~critical~~ milestones established by the **ISO**; and

(ii) energized and commissioned prior to the **obligation period**~~.~~; and

(iii) capable to connecting to the existing **transmission system** if the proposed interconnection location provided in subsection 3(4) is to the **transmission system**.

(d) the asset is not a **source asset** that is the subject of a renewable electricity support agreement in connection with rounds 1, 2 or 3 of the Renewable Electricity Program;

(e) the asset is not energy efficiency;

(f) in the case of a load asset:

(i) can or will be able to reduce ~~demand~~consumption during the **obligation period** in a way that is measureable by the **ISO**; and

(ii) is or will be a retail or self-retail asset;

~~(g~~(g) in the case of a load asset providing **guaranteed load reduction** is or will be capable of responding to a **dispatch** in the energy market;

(h) in the case of an **energy storage facility**, is or will be capable of maintaining energy production at ~~it~~the estimated **uniform capacity value** for the **energy storage facility** for a minimum of 4 hours;

(~~h~~i) in the case of an import asset:

(i) the **person** has firm transmission ~~from the import asset~~ to ~~the~~ Alberta ~~border~~for the estimated uniform capacity value for the import asset for the duration of the **obligation period**;

(ii) the import asset is not participating as non-recallable **capacity** in a resource adequacy program of another jurisdiction; and

(iii) the import asset will only be curtailed on a pro-rata basis by the **balancing authority** of the jurisdiction in which the import asset is located in when firm load~~, which is firm,~~ is curtailed~~.~~;

(~~i~~j) in the case of an aggregation of assets:

(i) has a **uniform capacity value** less than or equal to the **maximum capability** of the largest **generating unit** in Alberta multiplied by 0.85;

(ii) has or will have ~~the appropriate~~revenue quality interval metering ~~the **ISO** specifies~~ for each site associated with the asset in the aggregation;

(iii) is comprised of pool assets located within Alberta that are either exclusively:

(A) **generating units** or **aggregated generating facilities** ~~located within Alberta~~;

(B) load assets providing a **firm consumption level** ~~located within Alberta~~; or

(C) load assets providing a **guaranteed load reduction** ~~located within Alberta~~;

and~~,~~

(iv) is not comprised of any asset that will contribute **capacity** individually, or as part of another ~~aggregation, to the capacity market~~aggregated asset;

(~~j~~k) in the case of incremental **capacity**, will be ~~retrofitted~~modified in a manner that will, in the opinion of the **ISO**, increase the **maximum capability** of the asset by an amount in MW that is:

(i) greater than or equal to 1 MW; and

(ii) less than or equal to the greater of:

(A) 15% of the asset's **maximum capability**; or

(B) 40 MW above the asset's **maximum capability**~~.~~;

(~~k~~l) in the case of refurbished **capacity**, will be ~~retrofitted~~modified in a manner that will, in the opinion of the **ISO**, result in either:

(i) an increase in the asset's **maximum capability** by an amount exceeding the greater of:

(A) 15% of the asset's **maximum capability**; or

(B) 40 MW above the asset's **maximum capability**; or

(ii) a capital investment of greater than or equal to $200~~ per~~/kW of the asset's current **maximum capability** multiplied by ~~a capital cost escalation rate that is specified by~~ the ~~**ISO**~~. composite index calculated in accordance with the following formula:

~~**(2)** The **ISO** may,~~$$composite\ index = \frac{0.25 \times labour\ index}{60.7} + \frac{0.35 \times\ materials\ index}{118.5} + \frac{0.40 \times turbine\ index \times exchange\ rate}{268.7}$$

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;

(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 ~~a determination made pursuant to~~ Canadian Dollars, U.S. Dollar monthly average, Table 33-10-0163-01.

ISO Review of Refurbishment Costs

7(1) The **ISO** must request additional information from the **capacity market participant** concerning the cost information provided in accordance with subsection ~~4(1)(k)(ii), reject any~~6(1)(l)(ii) where the **ISO** determines such cost information appears unreasonable.

(2) The **ISO** must, exclude all or a portion of the cost information submitted ~~by the **capacity market participant** if~~in accordance with subsection 6(1)(l)(ii) where the ISO determines that such costs are unreasonable~~.~~, after requesting additional information in accordance with subsection 7(1).

~~(3~~Review and Approval of Qualification Application

8(1) The **ISO** must qualify an asset ~~with **new capacity,** refurbished capacity or incremental capacity for~~ for the capacity market if:

(a) the application provided pursuant to subsection 2 is complete; and

(b) the **ISO** is satisfied pursuant to subsection ~~7(1), as applicable.~~6(1) after taking into account the exclusion of cost information referred to in subsection 7(2).

(42) The **ISO** must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, notify each **person** or **capacity market participant** as to whether the ~~**new capacity,** refurbished capacity or incremental capacity~~asset is qualified for the capacity market.

Re-entry of Permanently Delisted Assets

9(1) The **ISO** must, in the case of a generating **source asset** that was permanently delisted from the energy and capacity markets within the previous 5 years in accordance with Section 201.15 of the **ISO rules**, *Delisting*, designate the generating **source asset** as **new capacity** if the generating **source asset** meets the following criteria:

(a) has undergone a material change including:

(A) a change to the primary fuel type;

(B) the addition of generation equipment;

(C) a change to the **maximum capability**; or

(D) the generating **source asset** was sold to a **person**, other than an associate of the **market participant** as defined in subsection 5 of the *Fair, Efficient and Openly Competitive Regulation*;

and

(b) a capital investment of greater than or equal to $200 multiplied by the escalation rate calculated in subsection 9(2) per kW of the asset's current **maximum capability**.

(2) The **ISO** must, in calculating the capital investment in subsection 9(1)(b), calculate the escalation rate in accordance with the following formula:

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

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;

(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.

Revision History

Date	Description

yyyy-mm-dd	Initial release

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.2 Self-Supply Configurations for the Capacity Market

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.2 applies to:

(a) the **legal owner** of a load asset that is connected to the **interconnected electric system** and is served by one or more onsite **generating units** or **aggregated generating facilities**, excluding sites where the load is exclusively station service for the **generating unit** or **aggregated generating facility**;

(b) the **legal owner** of a **generating unit** or an **aggregated generating facility** connected to the **interconnected electric system** that self-supplies capacity for one or more onsite load assets;

(c) the City of Medicine Hat; and

(d) the **ISO**.

Requirements

Requirements to Self-supply Capacity

2(1) The **legal owner** of a load asset must self-supply **capacity** if ~~such site is:~~the electric energy produced by an onsite **generating unit** or an **aggregated generating facility** can flow to the load asset without being measured and recorded at a measurement point.

~~(a) metered in a manner that the metering measures both onsite generation and load as a single value for each metering interval; or~~

~~(b) is not capable of flowing all energy produced on the site on to the **interconnected electric system**.~~

(2) The City of Medicine Hat must self-supply **capacity**.

Application to Self-supply Capacity

3 The **legal owner** of a load asset and the City of Medicine Hat must ~~provide the **ISO**~~, within the timelines prescribed by the *Capacity Market Auction Guidelines*, provide the **ISO** with a completed application, available on the AESO website, to self-supply **capacity** ~~including all information or documents that the **ISO** specifies~~.

Approval to Self-supply Capacity

4(1) The **ISO** must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, approve an application to self-supply **capacity** if the site meets the criteria set out in subsection 2.

~~**Changes in** **(2)** The **ISO** must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, notify a **capacity market participant** as to whether the site is approved to self-supply **capacity**.

Self-supply Configuration Updates

5 The **legal owner** of a load asset ~~that is~~in a self-~~supplying **capacity**~~supply configuration pursuant to subsection 2(1) must ~~self-supply **capacity** for a minimum~~, within the timelines prescribed by the *Capacity Market Auction Guidelines*, notify the **ISO** if:

(a) the volume of ~~4~~electric energy produced by the onsite **generating unit** or **aggregated generating facility** is expected to change for the upcoming **obligation ~~periods~~** ~~unless it can demonstrate to the **ISO**'s satisfaction that physical~~**period**; or

(b) the metering of the load asset changes ~~to the site warrant a change in self-supply configuration.~~ such that the electric energy produced by the onsite **generating unit** or an **aggregated generating facility** cannot flow to the load asset without being measured and recorded at a measurement point.

Capacity from a Self-supply Configuration

6(1) The **legal owner** of a **generating unit** or an **aggregated generating facility** in a self-supply configuration ~~must~~pursuant to subsection 2(1) must participate in the capacity market with the excess **capacity** that is not serving the onsite load, in the event that:

(a) the **generating unit** or **aggregated generating facility** has excess **capacity** that is not serving the ~~on-site~~onsite load; and

(b) the excess **capacity** that is not serving the ~~on-site~~onsite load has a **uniform capacity value** greater than or equal to 1 MW~~,~~.

~~participate in the capacity market with the excess **capacity** that is not serving the on-site load.~~

(2) The **legal owner** of a load asset in a self-supply configuration pursuant to subsection 2(1) may provide **capacity** in the capacity market with the portion of the load that is not supplied by onsite generation if the ~~**capacity** has a **uniform capacity value** greater than or equal to 1 MW~~load asset is qualified by the **ISO** to participate in the capacity market in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*.

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.3 Uniform Capacity Value Determination

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.3 applies to:

(a) a **capacity market participant**; and

(b) the **ISO**.

Requirements

~~1250~~Calculating Uniform Capacity Value for Associated Assets

2 The **ISO** must calculate a **uniform capacity value** in accordance with this section 206.3 for an asset associated with a **capacity market participant** in accordance with the timelines specified in the *Capacity Market Auction Guidelines*.

Selection of Tightest Supply Cushion Hours

~~2~~3(1) The **ISO** must, subject to subsection 3(2), select 250 hours from each ~~12 **month**~~of the previous 5 consecutive ~~period in the historical 60 **month** evaluation period~~periods dating November 1 to October 31 in as follows:

(a) calculate the supply cushion for every hour;

(b) rank all hours based on supply cushion in ascending order;

(c) within the order referred to in subsection ~~2(~~3(1)(b), rank hours with equivalent supply cushion in ascending order from the most recent to the most distant of time; ~~and~~

~~(d~~(d) remove any hours in which there was a state of market suspension; and

(e) select the first 250 hours after ranking and removing hours in accordance with subsections 3(1)(b) through 3(1)(d).

(2) The **ISO** must select the 250 hours from the most recent 12 **month** consecutive period dating November 1 to October 31 using the methodology in subsection ~~2(b) and 2(c).~~3(1) for a load asset providing a **firm consumption level**.

Asset Specific Hours for Uniform Capacity Value Calculation

~~3~~4(1) The **ISO** must ~~remove~~create a historical data set for an asset by identifying and removing the following hours from the ~~1250~~ hours ~~identified~~referred to in subsection 3(1) or 3(2), as applicable, on an asset-specific basis~~, in order to create an historical data set for each asset listed for a **capacity market participant** on the list~~:

(a) ~~hours~~an hour in which ~~there was a state of markets suspension~~an asset was not energized and commissioned;

(b) ~~hours~~an hour that the **ISO** determines that the asset was affected by:

(i) an event of limited markets operations, war, invasion, armed conflict, blockade, act of public enemy, riot, revolution, insurrection, act of terrorism, sabotage, act of vandalism, fire or explosion that does not originate at the asset, lightning~~, explosion~~, earthquake or flooding; and

(ii) a **mothball outage** or temporary economic **delist outage**;

(c) ~~hours in which the asset had no production or consumption history;~~

~~(d) hours~~an hour in which the asset was **commissioning**~~; and~~

(~~e~~d) in the case of an import asset, ~~hours~~an hour in which the relevant transfer path was unavailable as a result of an issue on the ~~Alberta~~ **transmission system**~~.~~ in Alberta;

(**~~2)~~** ~~The **ISO** may, e~~) in the case of a **long lead time asset** ~~that was synchronized but had varying start~~, an hour in which:

(i) the **capacity market participant** submits to the **ISO**, in accordance with the timelines prescribed in the *Capacity Market Auction Guidelines*, that the asset was in a long lead time configuration and is synchronized or is able to become synchronized within 1 hour but has varying start up times for distinct portions of its ~~MW~~generating capability, and ~~which required~~requires more than 1 hour to deliver such additional portions of ~~its MW, remove the hours where the **ISO** determines that:~~the asset's generating capability; and

(~~a~~ (ii) the ~~**pool participant** reason~~**ISO** determines that the short-run marginal costs of the asset, using the methodology outlined in ~~the~~Section 203.5 of the **ISO rules**, *Energy ~~Trading System indicates that the asset was offline~~Market Mitigation*, exceed the **pool price**.

(f) notwithstanding 4(1)(e), for the first 3 **obligations periods**, an hour in which:

(i) the **capacity market participant** submits to the **ISO**, in accordance with the timelines prescribed in the *Capacity Market Auction Guidelines*, that the asset was in a long lead time configuration~~;~~ and is synchronized or is able to become synchronized within 1 hour but has varying start up times for distinct portions of its generating capability, and requires more than 1 hour to deliver such additional portions of the asset's generating capability; and

(~~b~~ii) the ~~cost assessment for the asset exceeds the **pool price**;~~

~~in order to create an historical data set for each **long lead time asset** listed for a~~ **capacity market participant** ~~on the list.~~submits to the **ISO**, in accordance with the timelines prescribed in the *Capacity Market Auction Guidelines*, the short run marginal costs that exceed the **pool price** for the hour including:

~~**(3)** The **ISO** must, if it determines that the asset was impacted by a **transmission market constraint** during an hour in the asset's historical data set, add the volume that was curtailed to the **metered volume** in that hour for the purposes of calculating the **uniform capacity value** for the asset in accordance with subsection 5(2).~~

~~**Selection**~~(A) the heat rate in GJ/MWh;

(B) the fuel price in $/GJ;

(C) carbon intensity in tonnes of CO_2/MWh; and

(D) variable operations and maintenance costs in $/MWh.

(2) The **ISO** must remove subsections 4(1)(f) and 4(2) on or about the day the **rebalancing auction** for the third **obligation period** is concluded.

Application of Methodologies for Uniform Capacity Value Calculation

45(1) The **ISO** must, subject to subsection 5(2), when calculating a **uniform capacity value** for an asset, apply the methodologies in subsections 6 and 7, rounded to the nearest integer, as follows:

(a) if the number of hours in the asset's historical data set determined in accordance with subsection 34 is greater than or equal to 300 hours and less than or equal to 1250 hours then, use the methodologiesapplicable methodology in subsection 5 will be applied to the hours in the historical data set6;

(b) if the number of hours in the asset's historical data set determined in accordance with subsection 34 is greater than or equal to 1 hour and less than 300 hours then:

(i) use the methodologiesapplicable methodology in subsection 5 will be applied to6 for the hours in the asset's historical data set, as applicable; and

(ii) use the applicable methodology in subsection 6 will be applied to7 for the number of hours that is 300 hours minus the hours in the asset's historical data set, determined in accordance with subsection 3;

or

(c) if the number of hours in the asset's historical data set determined in accordance with subsection 34 is 0 hours then use the applicable methodology in subsection 7.

(2) The **ISO** must apply the methodologies in subsections 6 and 7 as follows to calculate a **uniform capacity value** for a load asset providing **firm consumption level**:

(a) use the methodology in subsection 6 will be applied to 300 hours.(5) for the hours in the asset's historical data set determined in accordance with subsection 3; and

(b) use the methodology in subsection 7(1)(a) for the number of hours that is 250 hours minus the hours in the asset's historical data set determined in accordance with subsection 4.

(3) The **ISO** must, where the **ISO** applies the methodologies in both subsections 6 and 7, weight the values identified in subsection 5(2)(a) and 5(2)(b) by the hours observed for each of those approaches when calculating the **uniform capacity value** for an asset.

Methodologies for Hours in thean Asset's Historical Data Set

56(1) The **ISO** must, subject to subsections 56(2) through 56(8) calculate a **uniform capacity value** for an asset as follows:

(a) calculate the hourly availability factor using the time weighted **available capability** as observed in the Energy Trading System, divided by **maximum capability** observed in for each hour in the asset's historical data set, in accordance with the following formula:

(b) calculate the $hourly\ availability\ factor_t = \frac{time\ weighted\ available\ capability_t}{maximum\ capability_t}$

where:

(i) *hourly availability factor* $_t$ is the availability factor by averagingfor hour *t*;

(ii) *time weighted available capability* $_t$ is the asset's **available capability** with the weight being proportional to the time the **available capability** was in effect within hour *t*; and

(iii) *maximum capability* $_t$ is the **maximum capability** of the asset in hour *t*;

(b) calculate the average availability factor in accordance with the following formula:

$$average\ availability\ factor = \frac{\sum hourly\ availability\ factor_t}{observed\ hours}$$

where:

(i) *hourly availability factor* $_t$ are the hourly availability factors ~~as~~ calculated in subsection ~~5~~ 6(1)(a~~) over the number of~~); and

(ii) *observed hours* is the numbers of hours in the asset's historical data set; ~~and~~

and

(c) ~~multiply~~calculate the asset's **uniform capacity value** by multiplying the average availability factor ~~calculated~~ in subsection ~~5~~6(1)(b) by the asset's **maximum capability**.

(2) The **ISO** must calculate a **uniform capacity value** for a wind ~~or~~, solar ~~**aggregated generating facility** or a~~ , or run of river hydroelectric **generating ~~unit~~units** or an **aggregated generating facility**, ~~or~~ an aggregated asset containing a wind or solar **aggregated generating facility** ~~or a run of river hydroelectric **generating unit** or **aggregated generating facility**, or assets~~, or an asset that ~~do not receive~~cannot change generation levels in response to a **dispatch** as follows:

(a) calculate the hourly capacity factor ~~by adding **metered energy** and applicable **ancillary services** volumes observed in~~for each hour in the historical data set~~, and dividing by **maximum capability**~~; in accordance with the following formula:

~~(b) calculate the capacity factor by averaging each~~ $hourly\ capacity\ factor_t = \frac{metered\ volume_t + curtailed\ volume_t + applicable\ ancillary\ service\ volume_t}{maximum\ capability_t}$

where:

(i) *hourly capacity factor* $_t$ is the capacity factor for hour *t*;

(ii) *metered volume* $_t$ is the **metered volume** that was delivered to the interconnected electric system during hour *t*; and

(iii) applicable *ancillary service volumes* $_t$ is the volume of electric energy that was subject to a **dispatch** for ancillary services during hour *t*; and

(A) in the case of an asset that was subject to a **dispatch** for **spinning reserve** or **supplemental reserve**, the volume that was provided pursuant to Section 205.5 of the **ISO rules**, *Spinning Reserve Technical Requirements and Performance Standards* or Section 205.6 of the **ISO rules**, *Supplemental Reserve Technical Requirements and Performance Standards*; and

(B) in the case of an asset that was subject to a **dispatch** for **regulating reserve**, the volume that was provided pursuant to Section 205.4 of the **ISO rules**, *Regulating Reserve Technical Requirements and Performance Standards* that is not captured as **metered energy**;

(iv) *curtailed* volume $_t$ is a volume that was curtailed as a result of a **transmission market constraint** during hour *t*;

(b) calculate the average capacity factor in accordance with the following formula:

$$average\ capacity\ factor = \frac{\sum hourly\ capacity\ factor_t}{observed\ hours}$$

where:

(i) *hourly capacity factor* $_t$ are the hourly capacity factors calculated in subsection ~~5~~6(2)(a~~) over~~); and

(ii) *observed hours* is the ~~number~~numbers of hours in the asset's historical data set; ~~and~~ and

(c) ~~multiply~~calculate the asset's **uniform capacity value** by multiplying the average capacity factor ~~calculated~~ in subsection ~~5~~6(2)(b) by the asset's **maximum capability**.

(3) The **ISO** must calculate a **uniform capacity value** for an import asset as follows:

(a) calculate the hourly availability factor for each hour in the asset's historical data set in accordance with the following formula:

$$hourly\ availability\ factor_t = \frac{min\{available\ capability, long\ term\ firm\ transmission\}_t}{long\ term\ firm\ transmission}$$

where:

(i) *hourly availability factor* $_t$ is the availability factor for hour *t;*

(ii) *min{availability factor ,long term firm transmission}* $_t$ is the lesser of ~~an~~the sum of the import asset's **available capability** ~~or an~~and the import asset's long term firm transmission capacity over ~~a~~the applicable transfer path ~~observed~~ in ~~each~~ hour ~~in~~*t*; and

(iii) *long term firm transmission* is the ~~historical data set, and dividing by an~~import asset's long term firm transmission capacity over ~~a~~the applicable transfer path to the Alberta border;

(b) calculate the average availability factor ~~by averaging each~~ in accordance with the following formula:

$$average\ availability\ factor = \frac{\sum hourly\ availability\ factor_t}{observed\ hours}$$

where:

(i) *hourly availability factor* $_t$ are the hourly availability factors calculated in subsection ~~5~~6(3)(a~~) over the number of~~); and

(ii) *observed hours* is the numbers of hours in the import asset's historical data set; ~~and~~ and

(c) multiply the average availability factor calculated in subsection ~~5~~6(3)(b) by ~~an~~the import asset's long term firm transmission ~~capacity~~ over ~~a~~the applicable transfer path.

(4) The **ISO** must calculate a **uniform capacity value** for a site with one or more onsite **generating units** or **aggregated generating facilities** that self-supplies **capacity** and ~~is dispatched~~receives a **dispatch** on a gross-to-grid basis as follows:

(a) calculate a gross **uniform capacity value** ~~using~~for the onsite **generating unit** or **aggregated generating facilities** in accordance with the availability factor ~~of the asset~~formula in subsection 6(1); and

(b) perform a linear regression of net-to-grid energy as a function of the energy market **dispatches** issued to the onsite **generating unit** on the self-supply site ~~as observed in each of the hours in the historical data set~~; and

(~~b~~c) translate the gross **uniform capacity value** calculated in subsection ~~5~~6(4)(a) to a net **uniform capacity value** using ~~a linear regression of net-to-grid energy relative to~~ the ~~energy market **dispatches** issued to the asset on the self-supply site.~~linear regression formula established in subsection 6(4)(b).

(5) The **ISO** must, subject to subsection ~~7~~8, calculate a **uniform capacity value** for a load asset providing **firm consumption level** as follows:

(a) identify the **metered energy** for the **settlement intervals** with the same **hour ending** as the hour in the historical data set ~~in the following **days**~~which must be either:

(i) the 15 most recent **business days** prior to the day with the hour in the historical data **set** if the hour falls on a **business day**;

(ii) the 10 most recent weekend **days** or holidays prior to the day with the hour in the historical data **set** if the hour falls on a weekend **day** or a holiday; or

(iii) the **days** the **ISO** specifies if, in the 45 **day** period prior to the **day** with the hour in the historical data set, there are fewer than 15 **business days** and 10 weekend **days** when **days** containing **settlement intervals** identified in subsection ~~5(5)~~6(b) are excluded;

(b) determine if any **settlement intervals** referred to in subsection 6(5~~)~~(a~~) contain any~~):

(i) occurred on days containing availability hours referred to in Section 206.8 of ~~hours in the historical data set in accordance with subsection 2~~the **ISO rules**, *Obligation Period Performance Assessment*;

(ii) occurred on days containing delivery hours referred to in Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessment*;

(iii) occurred on days containing hours identified in subsection 4(1); or

(iv) occurred on days containing hours in which the asset was subject to a **directive** for **ancillary services** or the asset received **dispatch** for an amount greater than 0 MW;

(c) calculate the ~~qualified baseline as the~~ average ~~of~~hourly **metered energy** where hourly metered energy is the **metered energy** for the **settlement intervals** referred to in subsection 6(5~~(5)~~(a~~)~~):

(i) excluding the **metered energy** for the **settlement intervals** identified in ~~subsection 5~~subsections 6(5)(b)(i), 6(5)(b)(ii) and 6(5)(b)(iii); and

~~minus an asset's declared **firm consumption level** from~~ (ii) including the addition to the **metered energy** the volume of the **directive** for **ancillary services** or the volume for **dispatch** in the **settlement intervals** identified in accordance with subsection 6(b)(iv);

and

(d) calculate the qualified baseline ~~calculated~~ in accordance with the following formula:

$$qualified\ baseline = \frac{total\ metered\ energy}{settlement\ intervals}$$

where:

(i) *total metered energy* is the average of all the hourly **metered energy** values from subsection 6(5)(c) for each of the hours in the historical data set; and

(ii) *settlement intervals* is the number of hours in the historical data set determined in subsection 6(5)(~~b~~a).

(6) The **ISO** must calculate a **uniform capacity value** for a load asset providing **guaranteed load reduction** ~~as~~if the load asset has been subject to a **capacity commitment** in a prior **obligation period**, multiply the **guaranteed load reduction** declared in accordance with Section 206.1~~,~~ of the **ISO rules**, *Qualification of Capacity*~~.~~, by the load asset's availability factor calculated in accordance with subsection 6(1).

(7) The **ISO** must calculate a **uniform capacity value** for an asset with incremental **capacity** ~~by~~ **multiplying** in accordance with the following formula:

$$uniform\ capacity\ value =$$

$$performance\ factor \times (maximum\ capability + incremental\ capacity)$$

where:

(a) *performance factor* is:

(i) the average availability factor or average capacity factor calculated in accordance with ~~subsections 5(1) through 5(~~subsection 6~~),~~, as applicable~~, by the sum of~~ ;

(ii) in the ~~assets **maximum capability** and~~case of an import asset, the ~~amount of incremental capacity.~~

~~**(8)** The **ISO** must calculate a **uniform capacity value** for an asset that undergoes a derate in its **maximum capability** in accordance with subsection 5, as applicable, substituting the **maximum capability** of the asset for its derated **maximum capability**.~~

~~**(9)** Where the **uniform capacity value** for at least 1 asset in an aggregated asset would otherwise be~~ **average availability factor calculated** ~~in accordance with~~**according to subsection** ~~5(2), the **ISO** must calculate the **uniform capacity value** of all assets in the aggregated asset in accordance with subsection 5(2).~~

~~**Methodologies for Hours not in the Historical Data Set**~~

6(~~**1)** The **ISO** must calculate a **uniform capacity value** for an asset in accordance with subsection 4, as follows:~~

~~(a) using a class average performance factor multiplied by **maximum capability**, where the class average performance factor is:~~

~~(i) for a load asset, 91% unless the **ISO** specifies a class average performance factor based on Alberta load data; or~~

~~(ii) for all other assets, as specified by the **ISO**;~~

~~(~~3)(b) ~~if a class average performance factor is not available, using a performance factor based on engineering studies or equivalent engineering documents, or production or load estimates of the asset multiplied by~~ **~~maximum capability~~**~~; or~~

~~(c) if a class average performance factor and production or load estimates are not available, using a performance factor based on a review of similar assets in other jurisdictions multiplied by~~ **~~maximum capability~~**~~.~~

~~**(2)** The **ISO** must calculate a **uniform capacity value** for an import asset where the hours in the historical data set are less than 250 as follows:~~

~~(a) using~~ derating the value declared, in accordance with Section 206.1~~, *Qualification* of *Capacity*, for~~ the ~~import asset; and~~

~~(b) derating the value declared , in accordance with Section 206.1~~**ISO rules**, *Qualification of Capacity*, to reflect the hours in the 1250 hours determined in accordance with subsection ~~2~~3 where the British Columbia transfer path, Montana transfer path or Saskatchewan transfer path, as applicable, was out of service with an **available transfer capability** of 0 MW.

and

(iii) in the case of a load asset, 91%, unless the **ISO** publishes a class average performance factor based on load data from Alberta.

(b) *maximum capability* is the **maximum capability** of the asset without considering the incremental capacity; and

(c) *incremental capacity* is the volume of incremental **capacity** in MW qualified by the **ISO** pursuant to Section 206.1 of the **ISO rules**, *Qualification of Capacity*.

(8) The **ISO** must, in the event an asset undergoes a derate in **maximum capability**, calculate a **uniform capacity value** for such asset in accordance with the applicable methodology in subsection 6, substituting the **maximum capability** of the asset for the derated **maximum capability**.

(9) The **ISO** must, where the **uniform capacity value** for at least 1 asset in an aggregated asset would be calculated in accordance with subsection 6(2), calculate the **uniform capacity value** of the aggregated asset in accordance with subsection 6(2).

Methodologies for Hours not in an Asset's Historical Data Set

7(1) The **ISO** must, subject to subsections 7(2) through 7(4), calculate a **uniform capacity value** for an asset as follows:

(a) multiply the asset's **maximum capability** by the applicable class average performance factor published by the **ISO**;

(b) if a class average performance factor is not available, multiply the asset's **maximum capability** by a performance factor derived from engineering studies or equivalent engineering documents, or production or load estimates of the asset; or

(c) if a class average performance factor and production or load estimates are not available, multiply the asset's **maximum capability** by a performance factor derived from a review of similar assets in other jurisdictions.

(2) The **ISO** must calculate a **uniform capacity value** for an import asset by multiplying the value declared in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity* by a derate factor that reflects number of hours in the asset's historical data set where the applicable transfer path was out of service with an **available transfer capability** of 0 MW.

(3) The **ISO** must calculate a **uniform capacity value** for a load asset providing **firm consumption level** in accordance with the following formula:

$$uniform\ capacity\ value = (declared\ qualified\ baseline - declared\ firm\ consumption\ level) \times performance\ factor$$

where:

(a) *declared qualified baseline* is the qualified baseline declared in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*;

(b) *declared firm consumption level* is the **firm consumption level** declared in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*; and

(c) *performance factor* is 91%, unless the **ISO** publishes a class average performance factor based on load data in Alberta.

(4) The **ISO** must calculate a **uniform capacity value** for a load asset providing **guaranteed load reduction** in accordance with the following formula:

$$uniform\ capacity\ value = guaranteed\ load\ reduction\ x\ performance\ factor$$

where:

(a) *guaranteed load reduction* is the **guaranteed load reduction** declared in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*; and

(b) *performance factor* is 91%, unless the **ISO** publishes a class average performance factor based on load data in Alberta.

Test Requirement for Load ~~Asset Providing a Firm Load Consumption~~Assets

~~7~~8**(1)** A **capacity market participant** must~~, if there were no delivery hours,~~ demonstrate to the **ISO** the ability of a load asset that was subject to a **capacity commitment** in the immediately preceding **obligation period** to reduce consumption of electric energy reflecting the **uniform capacity value** and maintain the reduction for 1 hour if, in the **obligation period** prior to **obligation period** ~~that~~for which the **ISO** is calculating a **uniform capacity value** ~~for~~ in accordance with subsection ~~6~~7(5), ~~demonstrate~~the following was not observed:

(a) there were no delivery hours as referred to in Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessment*; and

(b) the ~~ability of a load~~ asset ~~providing a firm~~ did not reduce consumption ~~level~~in response to ~~reduce down to the firm consumption level declared by the capacity~~an energy market ~~participant and maintain the reduction for 1 hour~~**dispatch** or **ancillary services** market **directive** to reflect the **uniform capacity value** for the load asset.

(2) The **ISO** must, in the event that the load asset ~~providing a **firm consumption level**~~ fails the demonstration in subsection ~~7~~8(1), ~~adjust~~reduce the **uniform capacity value** ~~calculated in accordance with subsection 6(5)~~for the **asset** to reflect the observed load reduction~~.~~ in 8(1).

Calculation of Ranges for a Uniform Capacity Value

~~8~~9**(1)** The **ISO** must, subject to subsection ~~8~~9(2), calculate ~~3~~ ranges for a **uniform capacity value** on an asset-specific basis as follows:

(a) determine the 5% range rounded to the nearest positive integer, as follows:

(i) calculate the upper limit, as follows:

(A) remove 5% of the hours identified in the historical data set, in which the asset's availability factor or capacity factor, as applicable, was the lowest;

(B) average the asset's remaining availability factor or capacity factor, as applicable; and

(C) multiply the average remaining availability factor or capacity factor, as applicable, by the asset's **maximum capability**; and

(ii) calculate the lower limit, as follows:

(A) remove 5% of the hours identified in the historical data set, in which the asset's availability factor or capacity factor, as applicable, was the highest;

(B) average the asset's remaining availability factor or capacity factor, as applicable; and

(C) multiply the average remaining availability factor or capacity factor, as applicable, by the asset's **maximum capability**;

(b) determine the +/- 2% range rounded to the nearest positive integer, as follows:

~~(~~i) calculate the upper limit, as follows:

(A) 2% multiplied by the **maximum capability**; and

(B) added to the **uniform capacity value**; ~~and~~

(ii) calculate the lower limit, as follows:

(A) 2% multiplied by the **maximum capability**; and

(B) subtracted from the **uniform capacity value**; ~~and~~

and

(c) determine the +/- 1 MW range, as follows:

(i) calculate the upper limit by adding 1 MW to the **uniform capacity value**; and

(ii) calculate the lower limit by subtracting 1 MW to the **uniform capacity value**.

~~(~~**2)** The **ISO** must not calculate the **uniform capacity value** ranges in subsection ~~7~~9(1) for:

(a) assets with **new capacity** or refurbished capacity;

(b) incremental capacity;

(c) a load asset; and

(d) an import asset.

Notification of Tightest Supply Cushion Hours and Preliminary Uniform Capacity Values

~~9~~10**(1)** The **ISO** must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, publish on the AESO website:

(a) the 1250 tightest supply cushion hours identified in accordance with subsection ~~2;~~3(1); and

(b) the class averages referred to in subsection ~~6~~(7(1)(a).

(2) The **ISO** must, within the timelines prescribed by the *Capacity Market Auction Guidelines*, provide the following information to a **capacity market participant** on an asset-specific basis:

(a) the hours in the historical data set, referred to in subsection ~~3~~4;

(b) the **uniform capacity value** calculated in accordance with subsections ~~4,~~ 5, 6 and ~~6~~7, as applicable;

(c) the methodology used to calculate the **uniform capacity value**;

(d) the greatest of the upper limits calculated in accordance with subsections ~~8~~9(1)(a)(i), ~~8~~9(1)(b)(i) and ~~8~~9(1)(c)(i) to a maximum of the asset's **maximum capability**; and

(e) the lowest of the lower limits calculated in accordance with subsection ~~8~~9(1)(a)(ii), ~~8~~9(1)(b)(ii) and ~~8~~9(1)(c)(ii) to a minimum of 1 MW.

Uniform Capacity Value Variances

~~10~~11**(1)** A **capacity market participant** may, within the timelines prescribed by the *Capacity Market Auction Guidelines* ~~and in the manner specified by the **ISO**, submit to the **ISO**~~, request to vary the **uniform capacity value** of an asset if:

(a) the asset has or will undergo a ~~request to vary~~ physical change before the start of the **obligation period** that will increase or decrease the **uniform capacity value** of ~~an~~the asset ~~for~~ by at least 1 MW; or

(b) where the class average data, production or load estimates, or jurisdictional assessment used in calculating the **uniform capacity value** in accordance with subsections 7(1)(a ~~reason set out~~)(ii), 7(1)(b) or 7(1)(c), does not create a comparable representation of the asset's future performance.

(2) The **capacity market participant** must, in the request referred to in subsection ~~10(2); and~~

~~(b)~~ 9(1), submit to the **ISO** detailed information in support of the request, including, as applicable:

~~(i) metering or Energy Trading System data;~~

(~~i~~a) information regarding a planned or completed physical change to the asset demonstrating that the ~~**maximum capability**~~**uniform capacity value** will increase or decrease by at least 1 MW;

~~(iii)~~ (b) information supporting why the characteristics, selection criteria and rationale for comparable assets, for class average and jurisdictional assessment requests, ~~including~~are not valid for the asset due to:

(~~A~~i) **maximum capability**; and

(~~B~~ii) available production and load data~~,~~;

and

(~~iv~~c) engineering studies or equivalent engineering documents, or production or load estimates which are specific to the asset at its location, completed by a qualified professional engineer.

~~**(2)** The **ISO** may accept a request made in accordance with subsection 10(1) on the following:~~

~~(a) the metering or Energy Trading System data during the historical data set evaluated by the **ISO** did not accurately reflect the **available capability** of the asset;~~

~~(b) the asset has or will undergo a physical change before the start of the **obligation period** that will increase or decrease the **maximum capability** of the asset by at least 1 MW; or~~

~~(c) where the class average data, production or load estimates, or jurisdictional assessment used in calculating the **uniform capacity value**, in accordance with subsections 6(1)(a)(ii), 6(1)(b) or 6(1)(c), does not create a comparable representation of the asset's future performance.~~

(3) The **ISO** must notify the **capacity market participant** of its decision on whether to vary the **uniform capacity value** within the timelines prescribed by the *Capacity Market Auction Guidelines*.

Declaration and Assignment of Final Uniform Capacity Value

~~11~~12**(1)** A **capacity market participant** must, in accordance with the timelines ~~specified in~~prescribed by the *Capacity Market Auction Guidelines*, declare to the **ISO**, as applicable, the **uniform capacity value** within the range identified in subsection ~~8~~9(1) that it will use for the applicable **base auction** or **rebalancing** **auction**.

(2) The **ISO** must assign to a **capacity market participant** the **uniform capacity value** for each associated asset in the following order of priority:

(a) the **uniform capacity value** from the dispute resolution process described in the *Capacity Market Regulation*;

(b) the **uniform capacity value** from the variance process in subsection 11(2);

(c) the **uniform capacity value** declared in accordance with subsection 12(1); or

(d) the **uniform capacity value** calculated by the **ISO** in accordance with subsections 6 and 7, as applicable.

(3) The **ISO** must, in accordance with the timelines ~~specified in~~prescribed by the *Capacity Market Auction Guidelines*, ~~notify the **capacity market participant** of its~~ publish the assigned **uniform capacity ~~value~~values** for all assets qualified for the **obligation period**.

Revision History

Date	Description
xxxx-xx-xx	Initial release

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.4 applies to:

(a) a **capacity market participant** with an asset that has ~~an assigned~~a **uniform capacity value** assigned pursuant to Section 206.3 of the **ISO rules**, *Uniform Capacity Value Determination*; and

(b) the **ISO**.

Requirements

Obligation to Offer and Offer Content for a Base Auction

2(1) A **capacity market participant** must ~~submit an **offer** for a **base auction** in respect of an asset that~~:

~~(a) has~~(a) submit an ~~assigned **uniform capacity value**; and~~

~~(b) is listed opposite the **capacity market participant** on the list the **ISO** publishes pursuant to Section 201.10 of the **ISO rules**, *Capacity Market Participant Registration*.~~

~~**(2)** A **capacity market participant** must ensure its~~ **offer** ~~volume~~ for ~~an asset in~~ a **base auction** ~~equals the asset's **uniform capacity value**.~~in respect of an asset; and

~~**(3**~~(b) ensure the volume of the **offer** in subsection 2(1)(a) is equal to the asset's assigned **uniform capacity value**.

(2) A **capacity market participant** must include in each **capacity block** in an **offer** for a **base auction**:

(a) a price in $/kW-year to the nearest cent per kW-year which, subject to Section 206.7~~,~~ of the **ISO rules**, *Capacity Market Mitigation*, is:

(i) greater than or equal to $0/kW-year; and

(ii) less than or equal to the maximum price established by the final demand curve~~; and~~ for the **base auction**;

and

(b) a quantity in MW that is a positive integer greater than or equal to 1 MW.

(4~~2~~3) The **ISO** must, if a **capacity market participant** does not submit an **offer** in accordance with subsections 2(1~~), 2(2~~) or 2(~~3~~2), assign an **offer** price of $0/kW-year for the **offer** volume equal to the asset's assigned **uniform capacity value** at the close of the offering window.

(4) A **capacity market participant** must, for a **person** that has been provided an offer price cap or has in accordance with Section 206.7 of the **ISO rules**, *Capacity Market Mitigation*, submit an **offer** in the **base auction** for the quantity of the asset's **uniform capacity value** that the **person** has offer control over at a price equal to or below:

(a) the offer price cap referred to in Section 206.7 of the **ISO rules**, *Capacity Market Mitigation*; or

(b) if an asset-specific offer price cap has been provided in accordance with Section 206.7 of the **ISO rules**, *Capacity Market Mitigation*, the asset-specific **offer** price cap.

Obligation to Offer and Offer Content for a Rebalancing Auction

3(1) A **capacity market participant** must ~~submit an **offer** for a **rebalancing auction** in respect of an asset that~~, if the assigned **uniform capacity value** of the **capacity market participant**'s associated asset is greater than the **capacity commitment**:

~~has an~~ (a) submit an **offer** for a **rebalancing auction** for that asset; and

(b) ensure the volume of the **offer** in subsection 3(1)(a) is equal to the difference between the asset's assigned **uniform capacity value** ~~greater than~~and the **capacity commitment**~~; and~~.

~~(a) is listed opposite the **capacity market participant** on the list the **ISO** publishes pursuant to Section 201.10 of the **ISO rules**, *Capacity Market Participant Registration*.~~

(2) A **capacity market participant** must ~~ensure its **offer** volume for an asset in a **rebalancing auction** equals~~, if the ~~difference between~~**capacity market participant**'s asset is not subject to a **capacity commitment**:

(a) submit an **offer** for a **rebalancing auction** for that asset; and

(b) ensure the volume of the **offer** in subsection 3(2)(a) is equal to the asset's assigned **uniform capacity value** ~~and its **capacity commitment**~~.

(3) A **capacity market participant** must, subject to subsection 3(4), include in each **capacity block** in an **offer** for a **rebalancing auction**:

(a) a price in $/kW-year to the nearest cent per kW-year which is:

(i) greater than or equal to $0/kW-year; and

(ii) less than or equal to the maximum price established by the final demand curve~~; and~~ for the **rebalancing auction**;

and

(b) a quantity in MW that is a positive integer equal to or greater than 1 MW.

~~(4~~**(4)** A **capacity market participant** that requested to temporarily delist for economic reasons and has been provided a price based on the remaining **avoidable costs** in accordance with Section 201.15 of the **ISO rules**, *Delisting* must submit an **offer** or **bid** in the last **rebalancing auction** as follows:

(a) for an asset where the volume submitted in the delist request is less than or equal to the assigned **uniform capacity value** minus the **capacity commitment** submit an **offer** comprised of 1 **capacity block** as follows:

(i) a price based on the remaining **avoidable costs** provided in accordance with Section 201.15 of the **ISO rules**, *Delisting*; and

(ii) a quantity in MW submitted in the delist request;

and

(b) for an asset where the volume submitted in the delist request is greater than the assigned **uniform capacity value** minus the **capacity commitment** submit the following:

(i) an **offer** comprised of 1 **capacity block**:

(A) at a price based on the remaining **avoidable costs** provided in accordance with Section 201.15 of the **ISO rules**, *Delisting*; and

(B) a quantity in MW that is equal to the assigned **uniform capacity value** minus the **capacity commitment**;

and

(ii) a bid comprised of 1 **capacity block**:

(A) at a price based on the remaining **avoidable costs** provided in accordance with Section 201.15 of the **ISO rules**, *Delisting* less $0.01; and

(B) the quantity calculated in accordance with subsection 5.

(5) A **capacity market participant** must calculate the quality referred to in subsection 3(4)(ii)(B) in accordance with the following formula:

$$quantity = delist\ volume - (uniform\ capacity\ value - capacity\ commitment)$$

where:

(a) *delist volume* is the volume submitted in the delist request;

(b) *uniform capacity value* is the assigned **uniform capacity value**; and

(c) *capacity commitment* is the **capacity commitment** for the asset.

(6) The **ISO** must, if a **capacity market participant** does not submit an **offer**:

(a) in accordance with subsections 3(1), 3(2) or 3(3), assign an **offer** price of $0/kW-year for the **offer** volume equal to the difference between the asset's **uniform capacity value** and its **capacity commitment** at the close of the offering window; or

(b) in accordance with subsection 3(4), assign the **offer** price and **offer** volume referred to in subsection 3(4) and 3(5).

(7) A **capacity market participant** must, notwithstanding subsection 3(2), not submit an **offer** in a **rebalancing auction** for an asset with **new capacity** or incremental **capacity** if the **ISO** determines that the **capacity market participant** has failed the milestone assessment in accordance with Section 206.5 of the **ISO rules**, *Forward Period Milestone Requirements*.

Designation of Flexible Blocks or Inflexible Blocks for Offers

4(1) A **capacity market participant** must, except for an asset with incremental **capacity**, designate in an **offer**:

(a) the lowest priced **capacity block** as a **flexible block** or **inflexible block**; and

(b) all other **capacity blocks** as **flexible blocks**.

(2) A **capacity market participant** must, for an asset with incremental **capacity**, designate each **capacity block** in an **offer** ~~all **capacity blocks**~~ as a **flexible ~~blocks~~block** except ~~in the following circumstances:~~ :

(a) the lowest priced **capacity block** may be designated as an **inflexible block**; or

~~(a) in~~(b) a **capacity block** that is not the ~~event that:~~

~~(i) the~~ lowest priced **capacity block** may be designated as an **inflexible block** if:

(i) such **capacity block** contains only incremental capacity~~;~~ and there is no lower priced **capacity block** which contains incremental **capacity**; or

(ii) ~~there is a~~such **capacity block** ~~that~~ contains only non-incremental **capacity**~~; and~~

~~(iii) there is no lower priced **capacity block** that contains both **incremental capacity** and non-**incremental capacity** than the lowest priced **capacity block** that contains no~~

~~**incremental capacity**~~,

~~the lowest priced **capacity block** containing only non-**incremental capacity** may be designated as an **inflexible block**, as demonstrated in Appendix 1.~~

~~(b) in the event that:~~

~~(i) the lowest priced **capacity block** contains only non-**incremental capacity**;~~

~~(ii) there is a **capacity block** that contains only **incremental capacity**; and~~

~~(iii)~~ there is no lower priced **capacity block** ~~that~~which contains ~~both~~ non-incremental **capacity** ~~and non-**incremental capacity** than the lowest priced **capacity block** that contains only **incremental capacity**~~,

~~the lowest priced **capacity block** containing only **incremental capacity** may be designated as an **inflexible block**, as demonstrated in Appendix 1~~.

Additional Offer Content for Incremental Capacity

5 A **capacity market participant** must, for an asset with incremental **capacity**, include in each **capacity block** in an **offer** a declaration of the quantity in MW within a **capacity block** that is incremental **capacity**.

Additional Offer Content for Refurbished Capacity

6(1) A **capacity market participant** ~~must,~~ that has failed the market power screen in accordance with Section 206.7~~,~~ of the **ISO rules**, *Capacity Market Mitigation* must, for an asset with refurbished **capacity** for which the **capacity market participant** declared to continue to participate in the energy and capacity markets the in event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in a **base auction** or **rebalancing auction** in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity*, submit 2 **offers** as follows:

(a) a first **offer** comprised of one **capacity block** that is an **inflexible block** ~~for an asset with **refurbished capacity** qualified by the **ISO**~~;at the price referred to in subsection 2(4); and

(b) a second **offer** based on the **offer** the **capacity market participant** would have submitted~~-~~ had the **ISO** not qualified the refurbished **capacity**~~,~~ at the price referred to in subsection 3(3)(b).

~~unless~~**(2)** A **capacity market participant** that has failed the market power screen in accordance with Section 206.7 of the **ISO rules**, *Capacity Market Mitigation* must, for an asset with refurbished **capacity** for which the **capacity market participant** declared to permanently delist ~~the **refurbished capacity** pursuant to~~in the event that the **capacity market participant** fails to receive a **capacity commitment** for such asset in a **base auction** or **rebalancing auction** in accordance with Section 206.1 of the **ISO rules**, *Qualification of Capacity* ~~in the event it fails to obtain a **capacity commitment**.~~, submit an **offer** comprised of one **capacity block** that is an **inflexible block**.

(~~2~~3) A **capacity market participant** may, if it has submitted an **offer** in accordance with subsection ~~6(1) and the **offer** that is referred to in subsection~~ 6(1)(a) and the **offer** does not clear, submit in ~~the next~~subsequent **base ~~auction~~auctions**:

(a) an **offer** comprised of one **capacity block** that is an **inflexible block** ~~for an asset with **refurbished capacity** qualified by the **ISO**~~;at the price referred to in subsection 2(4); or

(b) an **offer** based on the **offer** the **capacity market participant** would have submitted had the **ISO** not qualified the refurbished **capacity**~~.~~ at the price referred to in subsection 3(3)(b).

(3) A **capacity market participant** must, in the event that the **capacity market participant** submitted an **offer** for refurbished **capacity** in accordance with subsection 6(~~2~~3)(a) and the **offer** did not clear, permanently delist the asset in accordance with Section 201.15 of the **ISO rules**, *Delisting*.

(4) A **capacity market participant** must ensure that an **offer** has not been submitted in a previous **base auction** or **rebalancing auction** for the asset with refurbished **capacity** in the manner described in subsection 6(1) prior to submitting an **offer** in accordance with subsection 6(1).

Bid Content

7(1) A **capacity market participant** with a **capacity commitment** may submit a **bid** in a **rebalancing auction**~~:~~

~~for a quantity in MW that is equal to or greater than 1 MW and less than or equal to the **capacity commitment**;~~ an asset:

(a) that is priced at a price in $/kW-year to the nearest cent per kW-year which is greater than or equal to $0/kW-year; ~~and~~

(b) that is less than or equal to the ~~maximum~~ price cap established by the final demand curve for the **rebalancing auction**; and

(c) for a quantity in MW that is a positive integer equal to or greater than 1 MW and less than or equal to the **capacity commitment**.

(2) A **capacity market participant** with a **capacity commitment** must submit a **bid**, priced at $0.01/kW-year above the ~~maximum~~ price cap established by the final demand curve for the **rebalancing auction**, in accordance with the following:

(a) if the asset's assigned **uniform capacity value** for ~~the final~~a **rebalancing auction** is lower than ~~its~~ the **capacity commitment** due to a permanent or temporary physical **delist** request, the **capacity market participant** must submit a **bid** ~~for~~equal to the difference between the **capacity commitment** and the assigned **uniform capacity value**;

~~(b~~(b) if the asset's assigned **uniform capacity value** for the last **rebalancing auction** is lower than the **capacity commitment**, the **capacity market participant** must submit a **bid** equal to the difference between the **capacity commitment** and the assigned **uniform capacity value**; or

(c) if the **ISO** determines that the **capacity market participant** has ~~missed~~not satisfied a critical milestone ~~subject to~~in accordance with Section 206.5 of the **ISO rules**, *Forward Period Milestone Requirements*, the **capacity market participant** must submit a **bid** equal to its entire **capacity commitment** in the applicable **rebalancing auction**~~; or~~.

~~(c) if the **ISO** determines for a load asset that the **capacity market participant** has not met the milestone set out in Section 206.5 of the **ISO rules**, *Forward Period Milestone Requirements*, then that **capacity market participant** must submit a **bid** for the difference between the **capacity commitment** and the assigned **uniform capacity value** in the final **rebalancing auction**.~~

(3) The **ISO** must, if a **capacity market participant** does not submit a **bid** in accordance with subsection 7(2), assign a **bid** price of $0.01/kW-year above the ~~maximum~~ price cap established by the final demand curve for the **rebalancing auction** for the **bid** volume required in subsection 7(2~~).~~) at the close of the offering window.

Designation of Flexible Blocks or Inflexible Blocks for Bids

8 A **capacity market participant** must designate in a **bid**:

(a) the lowest priced **capacity block** as a **flexible block** or **inflexible block**; and

(b) all other **capacity blocks** as **flexible blocks**.

Submission of Offer and Bid for the Same Asset in a Rebalancing Auction

~~8~~9 A **capacity market participant** that submits an **offer** and **bid** for the same associated asset in a **rebalancing auction** must price the **capacity blocks** such that the highest priced **capacity block** for the **bid** is less than the lowest priced **capacity block** for the **offer**.

~~**Designation of Flexible Blocks or Inflexible Blocks for Bids**~~

~~**9** A **capacity market participant** must designate in a bid:~~

~~(a) the lowest priced **capacity block** as a **flexible block** or **inflexible block**; and~~

~~(b) all other **capacity blocks** as **flexible blocks**.~~

Offering Window

10(1) The **ISO** must ~~specify the~~, in the *Capacity Market Auction Guidelines*, establish an offering window of at least 5 **business days** for a **base auction** or **rebalancing auction** ~~in the *Capacity Market Auction Guidelines*~~.

~~**(2)**~~**(2)** A **capacity market participant** must submit an **offer** or **bid** during the offering window.

(3) The **ISO** may change or extend the offering window in the event of system unavailability ~~and~~if the **ISO** determines that such unavailability warrants a change or extension to the offering window.

(~~3~~4) The **ISO** must ~~notify **capacity market participants** of~~publish on the AESO website any change or extension to an offering window made pursuant to subsection 10(2).

~~**(4)** A **capacity market participant** must submit an **offer** or **bid** during the offering window.~~

Offer Submission Methods

11 A **capacity market participant** must submit an **offer** or **bid** for a **base auction** or **rebalancing auction** in ~~a~~the manner the **ISO** ~~determines~~specifies.

~~**Appendices**~~

~~Appendix 1 - *Scenarios for use of flexible and inflexible capacity blocks for assets with incremental capacity*~~

Revision History

Date	Description
xxxx-xx-xx	Initial release

Appendix 1 – Scenarios for use of flexible and inflexible capacity blocks for assets with incremental capacity

Caveat for scenarios is that prices of **capacity blocks** increases from **capacity block** no. 1 to **capacity block** no. 7

Scenario 1

Block No.	Incremental Capacity	Non-Incremental Capacity	May Designate as Flexible?	May Designate as Inflexible?
1	Y	Y	Y	Y
2	Y	N	Y	N
3	N	Y	Y	N
4	*	*	Y	N
5	*	*	Y	N
6	*	*	Y	N
7	*	*	Y	N

Scenario 2

Block No.	Incremental Capacity	Non-Incremental Capacity	May Designate as Flexible?	May Designate as Inflexible?
1	N	Y	Y	Y
2	Y	Y	Y	N
3	*	*	Y	N
4	*	*	Y	N
5	*	*	Y	N
6	*	*	Y	N
7	*	*	Y	N

Scenario 3

Block No.	Incremental Capacity	Non-Incremental Capacity	May Designate as Flexible?	May Designate as Inflexible?
1	Y	N	Y	Y
2	Y	N	Y	N
3	Y	Y	Y	N
4	*	*	Y	N
5	*	*	Y	N
6	*	*	Y	N
7	*	*	Y	N

Scenario 4

Block No.	Incremental Capacity	Non-Incremental Capacity	May Designate as Flexible?	May Designate as Inflexible?
1	Y	N	Y	Y
2	Y	N	Y	N
3	N	Y	Y	Y
4	*	*	Y	N
5	*	*	Y	N
6	*	*	Y	N
7	*	*	Y	N

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.5 Forward Period Milestone Assessment

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.5 applies to:

(a) a **capacity market participant**; and

(b) the **ISO**.

Requirements

Development of Milestones

2(1) The **ISO** must publish the class-specific target completion dates for the following milestones on the AESO website, on a class-specific basis:

(a) in the case of a **generating unit** or **aggregated generating facility**:

(i) regulatory permitting and licensing;

(ii) full notice to proceed;

(iii) major equipment procurement agreements;

(iv) delivery of major equipment to the site;

(v) commissioning and start-up; and

(vi) in-service date;

and

(b) in the case of a load asset, confirmation that the load asset will be able to provide a minimum 75% of the **capacity commitment**.

(2) The **ISO** must notify a **capacity market participant** for an asset with **new capacity**, incremental **capacity** or refurbished **capacity** of the asset-specific target completion dates for the milestones referred to in subsection 2(1), based on the class-specific target dates referred to in subsection 2(1).

(3) The **ISO** may, if the **ISO** determines that the milestones in subsection 2(1) are not appropriate for an asset with **new capacity**, incremental **capacity** or refurbished **capacity**, notify a **capacity market participant** for the asset of the alternative milestones and associated target completion dates.

Milestone Assessment

~~**23**~~**(1)** ~~The **ISO** must develop and publish on the AESO website, the critical milestones and associated target completion dates applicable to respective asset classes identified by the **ISO**.~~

~~**(2)** The **ISO** must~~ A **capacity market participant** must, prior to each **rebalancing auction** and ~~in accordance with~~ within the timelines prescribed in the *Capacity Market Auction Guidelines*, ~~determine if~~submit to the **ISO** an ~~asset with **new capacity**, incremental capacity, or refurbished capacity that is subject to~~ updated project plan and information supporting whether a ~~**capacity commitment**~~milestone has been achieved by the ~~critical milestones prior to the~~asset-specific target completion date ~~in advance of the **rebalancing auction**, as applicable~~.

(~~3~~2) The **ISO** must~~, where it has determined under subsection 2(2) that an asset with **new**~~ identify a **capacity** ~~has not achieved one or more critical milestones that have target completion dates prior to~~**market participant** who, at the ~~date~~time of the ~~applicable **rebalancing auction**, reasonably determine whether or~~

~~not such asset will be able~~**ISO**'s milestone assessment, failed to achieve ~~such critical~~the most recent milestone~~(s):~~:

(a) in the case of the milestone assessment for the first **rebalancing auction**, within 8 **months** after the ~~applicable~~asset-specific target completion date~~(s); and~~; or

(b) in the case of the ~~second~~milestone assessment for the last **rebalancing auction**~~, and in the case of the singular **rebalancing auction** within the transitional period~~, within 5 **months** after the ~~applicable~~asset-specific target completion date~~(s).~~ .

~~**Unique Asset Classes**~~

~~**(3(1)** The **ISO** may, if it received a project plan for an asset with **new capacity** pursuant to Section 206.1 of the **ISO rules**, *Qualification of Capacity* that is not included in the asset classes set out in subsection 2(1), develop a set of proposed critical milestones and associated target completion dates for such asset.~~

~~**(2))** The **ISO** must notify **capacity market participants** of its proposed critical milestones and associated target completion dates under subsection 3(1).~~

~~**(3)** The **ISO** may add an asset class with the critical milestones and target completion dates as determined in subsection 3(1) to the list published in accordance with subsection 2(1).~~

~~**(4)** The **ISO** must determine if an asset with **new capacity** has not achieved one or more critical milestones that have target completion dates prior to the date of the applicable **rebalancing auction.**~~

~~**Outcome of Milestone Assessment**~~

~~**4** A~~a **capacity market participant** ~~must, where the **ISO** has determined under subsection 2 that an asset will not achieve one or more critical milestones, submit a **bid** in respect of the **new capacity**, incremental capacity, or refurbished capacity of such asset in accordance with Section 206.4 of the **ISO rules**, *Offers and Bids for the Capacity Market.*~~

~~**Milestone Assessment for Load Assets**~~

~~**5(1)** The **ISO** must, prior to the last **rebalancing auction** for each load asset with **new capacity** that is subject to a **capacity commitment**, make a determination of whether the asset will be able to provide a minimum 75% of the **capacity commitment** based on the supporting evidence submitted pursuant to subsection 5(2).~~

~~**(2)** A **capacity market participant** must submit evidence of sufficient contracted loads to meet the milestone in subsection 5(1) and any other information that the **ISO** requires.~~

~~**(3)** The **ISO** must notify the **capacity market participant** of its determination under subsection 5(1).~~

~~**(4)** A **capacity market participant** must, where the **ISO** has determined under subsection 5(1) that the asset will not be able to achieve~~that has failed the milestone ~~by the last **rebalancing auction**, submit a **bid** in respect of the **new capacity** of such asset in accordance with Section 206.4 of the **ISO rules**, *Offers and Bids for the Capacity Market.*~~assessment in accordance with subsection 3(2).

Revision History

Date	Description
yyyy-mm-dd	Initial release

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.6 Base Auction and Rebalancing Auction

External Consultation Draft
~~August 3~~October 22, 2018

Applicability

1 Section 206.6 applies to:

(a) the **ISO**.

Requirements

Base Auction Timeline

2(1) The **ISO** must conclude a **base auction** no later than 36 **months** prior to the start of the **obligation period**.

(2) The **ISO** must:

(a) notwithstanding subsection 2(1), conclude a **base auction** for the first 3 **obligation periods** in accordance with the timelines established in the *Capacity Market Auction Guidelines*; and

(b) remove ~~this~~ subsection 2(2) on or about the **day** the **base auction** for the third **obligation period** is concluded.

Rebalancing Auction Timeline

3(1) The **ISO** must, subject to subsection 3(2), conclude ~~two~~2 **rebalancing auctions** at no later than 18 **months** and 3 **months**, respectively, prior to the start of the **obligation period**.

(2) The **ISO** must:

(a) notwithstanding subsection 3(1), conclude one **rebalancing auction** ~~at~~, that is the last **rebalancing auction**, no later than 3 **months** prior to the start of the **obligation periods** for the first 3 **obligation periods**; and

(b) remove ~~this~~ subsection 3(2) on or about the day the **rebalancing auction** for the third **obligation period** is concluded.

Publication of Capacity Market Auction Guidelines

4 The **ISO** must publish the *Capacity Market Auction Guidelines* no later than 8 months prior to the start of each **base auction** ~~and~~or **rebalancing auction** offering window.

Sealed-bid, Single-round Base Auction and Rebalancing Auction

5 The **ISO** must, for each **base auction** and **rebalancing auction**, use a sealed-bid, single-round auction design to establish a single clearing price.

Auction Results

6(1) The **ISO** must, as soon as practicable following a **base auction** and **rebalancing auction**, notify the **capacity market participant** of ~~its~~the **capacity** ~~**commitment**~~**market participant**'s **capacity commitments** by asset.

(2) The **ISO** must, as soon as practicable following a **base auction** and **rebalancing auction**, publish the following results of the **base auction** or **rebalancing auction**~~, including~~:

(a) the clearing price;

(b) the total **capacity** procured;

(c) the total **capacity** procured by technology type; and

(d) the total **capacity** procured from assets associated with an **offer** for **new capacity**, incremental capacity and refurbished capacity~~; and~~.

~~**for**~~**(3)** The **ISO** must, as soon as practicable following the last **rebalancing auction** ~~**for an obligation period, a list of each asset subject to a**~~, publish the **capacity commitment** associated with each asset.

Revision History

Date	Description
yyyy-mm-dd	Initial release

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.7 applies to:

(a) a **person** ~~who has~~identified in **offer control** ~~over~~**information** associated with **capacity** from an asset that has been assigned a **uniform capacity value** for a **base auction**; and

(b) the **ISO**.

Market Power Screen

2(1) The **ISO** must, before a **base auction** and within the timelines prescribed by the *Capacity Market Auction Guidelines*, ~~identify those **persons** who have market power by conducting the following steps~~calculate the market screen as follows:

(a) ~~determine the price corresponding to the inflection point on the final demand curve for the **base auction**;~~

~~(b) determine~~calculate the slope above the inflection point of the final demand curve for the **base auction** ~~using~~ in accordance with the following formula:

$$m = \frac{y_{cap} - y_{ip}}{x_{min} - x_{ip}}$$

~~Where~~

$$|slope_m| = \frac{price\ cap\ - inflection\ price}{minimum\ procurement\ volume - inflection\ volume}$$

where:

(i) |*slope* $_m$ ~~means~~| is the absolute value of the slope above the inflection point of the final demand curve for the **base auction**;

~~y_{cap} means~~(ii) *price cap* is the price cap of the final demand curve for the **base auction**;

~~x_{min} means the~~ (iii) *inflection price* is the price corresponding to the inflection point on the final demand curve for the **base auction**;

(iv) *minimum procurement volume*~~;~~ is the minimum procurement volume for the **base auction**; and

~~y_{ip} means the price~~ (v) *inflection volume* is the volume of **capacity** corresponding to the inflection point on the final demand curve for the **base auction**~~, determined in subsection 2(1)(a); and~~;

~~x_{ip} means the capacity volume of the inflection point.~~

~~(c) determine~~ (b) calculate the slope below the inflection point of the final demand curve for the **base auction** ~~using~~that is established in accordance with Section 207.3, *Shape of the Demand Curve* in accordance with the following formula, expressed as an absolute value:

$$n = \frac{y_{ip} - y_{foot}}{x_{ip} - x_{foot}}$$

~~Where~~

~~*n* means~~ $|slope_n| = \frac{inflection\ price - foot\ price}{inflection\ volume - foot\ volume}$

where:

(i) $|slope_n|$ is the absolute value of the slope below the inflection point of the final demand curve for the **base auction**;

~~y_{ip} means the price corresponding to the inflection point on the final demand curve for the **base auction**, determined in subsection 2(1)(a);~~

~~x_{ip} means the capacity volume of the~~ (ii) *inflection* ~~point;~~

~~y_{foot} means the price at the foot of the final demand curve for the **base auction**; and~~

~~x_{foot} means the volume of capacity at the foot of the final demand curve.~~

~~(d) calculate the amount of **capacity** that, if withheld, will raise the clearing price from y_{ip} to 1.1 times y_{ip} using the following formula:~~

~~$w_1 = 0.1/m \times y_{ip}$~~

~~Where:~~

~~w_1 means the amount of **capacity** in MW, if withheld, will raise the clearing price from y_{ip} to 1.1 y_{ip};~~

~~y_{ip} means~~*price* is the price corresponding to the inflection point on the final demand curve for the **base auction**~~, determined in subsection 2(1)(a); and~~;

~~*m* means~~(iii) *foot price* is the ~~slope above~~price at the ~~inflection point~~foot of the final demand curve ~~established~~ for the **base auction**~~, calculated~~ established in accordance with ~~subsection 2(1)(a)(ii).~~

~~(e) calculate,~~ Section 207.3 of the ~~amount of **capacity** that, if withheld, will raise the clearing price from y_{ip} / 1.1 to y_{ip} using the formula:~~**ISO rules**, *Shape of the Demand Curve*;

~~$w_2 = 0.1/1.1n \times y_{ip}$~~

~~Where:~~

~~w_2 means~~(iv) *inflection volume* is the ~~amount~~volume of capacity ~~in MW, if withheld, will raise~~ corresponding to the ~~clearing price from y_{ip} / 1.1 to y_{ip};~~

~~y_{ip} means~~inflection point on the ~~price~~ final demand curve for the **base auction**; and

(v) *foot volume is* the volume of capacity corresponding to the ~~inflection point on the final demand curve for the **base auction**, determined in subsection 2(1)(a); and~~

~~*n* means the slope below the inflection point~~foot of the final demand curve ~~established~~ for the base auction~~.~~ established in accordance with Section 207.3 of the **ISO rules**, *Shape of the Demand Curve*;

~~(f~~ (c) calculate the average of the **capacity** ~~referred to in subsections 2(1)(c) and 2(1)(d) using the formula:~~

~~$w = (w_1 + w_2)/2 = (0.1/2m + 0.1/2.2n) \times y_{ip}$~~

~~Where:~~

~~*w* means the average of the **capacity** in MW referred to in subsections 2(1)(d) and 2(1)(e) and is the minimum amount of **capacity** in MW to be withheld above and below the inflection point to~~that, if withheld, would effect a 10% change in the clearing price~~;~~ in accordance with the following formula:

~~w_1 means the value in MW calculated in subsection 2(1)(a);~~

~~w_2 means the value in MW~~ $$average\ capacity = \left(\frac{0.1}{|slope_m|} + \frac{0.1}{1.1 \times |slope_n|}\right) \times inflection\ price \div 2$$

where:

(i) $|slope_m|$ is the slope calculated in subsection 2(1)(b);

~~*m* means the~~ (ii) $|slope_n|$ ~~above the inflection point of the final demand curve established for the **base auction**,~~ is the slope calculated in ~~accordance with~~ subsection 2(1)(~~a)(ii);~~

~~*n* means the slope of the final demand curve below the inflection point;~~c); and

~~y_{ip} means~~(iii) *inflection price* is the price corresponding to the inflection point on the final demand curve for the **base auction**~~, determined in subsection 2(1)(a);~~;

~~(~~and

(d) calculate the minimum amount of **capacity** that a **person** must have under its offer control to withhold the average amount of **capacity** ~~calculated~~ in subsection 2(1)(~~f) from the capacity market~~c) without sustaining any financial loss~~, using~~ in accordance with the following ~~steps~~formula:

~~(i) determine the amount of **capacity** under the offer control of a **person** that, if the amount calculated in 2(1)(f) is economically withheld from the capacity market, that **person** would earn revenue from the capacity market that is no less than the amount the **person** would earn absent of the withholding, using the formula:~~

~~$1.1 X\ p\ X\ (q - w) >= p\ X\ q$~~

~~Where:~~

~~*q* means the amount of **capacity**, in MW referred to in subsection 2(1)(g), held by a **person** and its associates, as associate is described in the *Fair, Efficient, and Open Competition Regulation*;~~

~~*p* means the market clearing price absent of the withholding; and~~

~~*w* means the amount of **capacity** in MW referred to in subsection 2(1)(f);~~

~~(ii) determine the minimum amount of **capacity** referred to in subsection 2(1)(g), using the formula:~~

~~$q = 11 X \{(0.1/2m + 0.1/2.2n) X\ y_{ip}\}$~~

~~Where:~~

~~*q* means the minimum amount of **capacity**, in MW referred to in subsection 2(1)(g), held by a **person** and its associates, as associate is described in the *Fair, Efficient, and Open Competition Regulation*;~~

~~*m* means the slope above the inflection point of the final demand curve established for the **base auction** in subsection 2(1)(b);~~

~~*n* means the slope of the final demand curve below the inflection point; and~~

~~y_{ip} means the price corresponding to the inflection point on the final demand curve established for the **base auction**.~~

$$portfolio\ capacity = 11 \times average\ capacity$$

where:

(i) *average capacity* is the average capacity calculated in accordance with subsection 2(1)(c).

(2) The **ISO** must identify those **persons** that have offer control over an amount of **capacity** that is greater than or equal to the amount of **capacity** calculated in subsection 2(1)(~~g~~d), where **capacity** is measured by **uniform capacity values**, excluding such **capacity** that is **new capacity** or incremental **capacity**.

(3) The **ISO** must, in accordance with the timelines established in the *Capacity Market Auction Guidelines*:

(a) publish the minimum amount of **capacity** identified in subsection 2(1)(~~g~~d); and

(b) notify a **person** that has been identified in subsection 2(2) as having market power.

Offer ~~price cap~~Price Cap

~~**3** Subject to subsection 4, a **person** that has received a notification in accordance with subsection 2(3)(b) that they have market power must, with respect to an asset under the **offer control** of such **person**, except for **new capacity**, refurbished capacity, or incremental capacity, submit an **offer** in a **base auction** at or below an **offer** price cap as follows:~~

~~(a) where the price cap for the **base auction** is set at a multiple of net-CONE~~**3(1)** The **ISO** must, for a **base auction**, establish an offer price cap that is:

(a) 80% of the net-CONE calculated in accordance with Section 207.3 of the ISO rules, *Shape of Demand Curve*, where the ~~**offer**~~ price cap for the **base auction** is set at a multiple of net-CONE; or

(b) an amount ~~that is 80% of the net-CONE; or~~

~~(b) where the price cap for the **base auction** is set at a multiple of~~equal to gross-CONE ~~in accordance with Section 207.3 of the **ISO rules**, *Shape of Demand Curve* the **offer** price cap is an amount that is~~ multiplied by 80% of the ratio between the multiple of gross-CONE and the multiple of net-CONE ~~specified~~established in Section 207.3 of the **ISO rules**, *Shape of Demand Curve* ~~multiplied by~~, where the price cap for the **base auction** is set at a multiple of gross-CONE.

(2) The **ISO** must provide the offer price cap referred to in subsection 3(1) to a **person** that has received notification in accordance with subsection 2(3)(b), for each asset or portion of such asset under the offer control of the **person**, excluding an asset or portion of such asset that contains **new capacity**, incremental **capacity** or refurbished **capacity**.

Asset-specific ~~offer price cap~~Offer Price Cap

4(1) A **person** that has received a notification in accordance with subsection 2(3)(b) ~~as having market power~~ may submit to the **ISO**~~, in the form and manner the ISO specifies,~~ a request for an asset-specific offer price cap ~~to offer **capacity** from an asset under the **offer control** of such **person**, except for **new capacity**, refurbished capacity or incremental capacity, above the **offer** price cap established in subsection 4.~~.

(2) A **person** ~~requesting an asset-specific price cap, in accordance with subsection 4(1), must~~ must submit to the **ISO** the following~~:~~

~~(a) the asset to which the asset-specific price cap~~ information in the request ~~applies;~~referred to in subsection 4(1):

(~~b~~) a) the **avoidable costs** of the asset for the **obligation period** and substantiating information;

(~~c) any costs~~(b) the information necessary for the **ISO** to calculate the energy and ancillary services offset in accordance with ~~subsection 4(4)(a);~~Section 206.11 of the **ISO rules**, *Energy* and *Ancillary Services Offset for Assets*; and

(~~d~~c) an attestation from a corporate officer of the **legal owner** that has offer control over the asset that the information provided pursuant to subsections 4(2)(~~b~~a) and 4(2)(~~c) are complete and~~b) is accurate.

(3) The **ISO** ~~may, with respect to~~must request additional information from the ~~avoidable~~ **person** concerning the costs submitted in subsection 4(2)(a) where such costs, in the **ISO**'s determination, appear unreasonable.

(4) The **ISO** must exclude costs provided in accordance with subsection 4(2)(a) if the **ISO** determines, after requesting additional information pursuant to subsection 4(~~2)(b), exclude~~3), that such costs ~~items~~ that are unreasonable.

(~~4~~5) The **ISO** must, when a request is made for an asset-specific price cap under subsection 4(1)~~(a~~):

(a) calculate the energy and ancillary services offset, ~~as applicable,~~ using the methodology set out in Section~~.~~ 206.11 of the **ISO rules**, *Energy and Ancillary Services Offset for Assets* for the asset to which the request for the asset-specific offer price cap applies; and

(b) subtract the energy and ancillary services offset referred to in subsection 4(~~4~~5)(a) from the **avoidable costs** submitted ~~pursuant to~~in subsection 4(2)(~~b) that have not been~~a) less any costs excluded by the **ISO** ~~pursuant to~~in accordance with subsection 4(4~~(3~~).

(~~5~~6) The **ISO** must, if ~~it~~the **ISO** determines the amount calculated in subsection 4(~~4~~5)(b) is greater than the offer price cap ~~referred to~~ in subsection 3, provide to the **person** an asset-specific price cap equal to the amount determined in subsection 4(~~4~~5)(b~~) to the **person** that submitted the asset-specific price cap request under subsection 4(1)(a).~~

~~**(6)** A **person** must, if the **person** has been provided an asset-specific offer price cap in accordance with subsection 4(5), submit an **offer** in the **base auction** at a price equal to or below the asset-specific **offer** price cap for the **capacity** from an asset referred to in subsection 4(2)(a).~~

~~**(7)** A **person** must, if the **person** does not receive an asset-specific price cap pursuant to subsection 4(5), submit an **offer** in the **base auction** at or below the **offer** price cap established in subsection 3 for the **capacity** from an asset referred to in subsection 4(2)(a~~).

Revision History

Date	Description
xxxx-xx-xx	Initial release.

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.8 Obligation Period Performance Assessments

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.8 applies to:

(a) the **ISO**.

Requirements

Availability Hours during an Obligation Period

2(1) The **ISO** must select 250 hours from each **obligation period** to assess availability as follows:

(a) calculate the supply cushion for every hour in an **obligation period**;

(b) rank all hours based on supply cushion in ascending order;

~~(c~~(c) remove hours in which there was a state of markets suspension;

(d) within the order referred to in subsection 2(1)(b) and 2(1)(c), rank hours with equivalent supply cushion in ascending order from the most recent to the most distant of time; and

(~~d~~e) select the first 250 hours after ranking in accordance with subsection 2(1)(b) and 2(1)(~~c~~d).

(2) The **ISO** must, in order to establish the availability hours for an asset, remove ~~the following hours~~ from the 250 hours identified in subsection 2(1) on an asset-specific basis~~:~~

~~(a) hours in which there was a state of markets suspension; and~~

~~(b)~~ , hours that the **ISO** determines that the asset is affected by an event of limited markets operations, war, invasion, armed conflict, blockade, act of public enemy, riot, revolution, insurrection, act of terrorism, sabotage, act of vandalism, fire or explosion that does not originate at the asset, lightning~~, explosion~~, earthquake or flooding.

Delivery Hours for a Settlement Period

3(1) The **ISO** must select hours to assess delivery for a **settlement period** by identifying any hours or portions thereof in which a supply shortfall has occurred and the **ISO** has declared an energy emergency event in accordance with Section 305.1 of the **ISO rules**, *Energy Emergency Alerts*.

(2) The **ISO** must, in order to establish the delivery hours for an asset, remove the following hours from the hours selected in subsection 3(1) on an asset-specific basis:

(a) hours in which there was a state of markets suspension; and

(b) hours that the **ISO** determines that the asset was affected by an event of limited markets operations, war, invasion, armed conflict, blockade, act of public enemy, riot, revolution, insurrection, act of terrorism, sabotage, act of vandalism, fire or explosion that does not originate at the asset, lightning~~, explosion~~, earthquake or flooding.

Look-back Baseline for a Load Asset Providing a Firm Consumption Level

4 The **ISO** must, for each of the availability hours established in subsection 2(2), calculate the look-back baseline as a volume in MW for a load asset as follows:

(a) identify the **metered energy** for the look-back baseline **settlement intervals** with the same **hour ending** as the availability hour in the **days** which must be either:

(i) the 15 most recent **business days** prior to the **day** with the availability hour if the availability hour falls on a **business day**;

(ii) the 10 most recent weekend **days** or holidays prior to the **day** with the availability hour if the availability hour falls on a weekend **day** or a holiday; or

(iii) the **days** the **ISO** specifies if, in the 45 **day** period prior to the **day** with the availability hour, there are fewer than 15 **business days** and 10 weekend **days** when **days** containing **settlement intervals** identified in subsection 4(b) are excluded;

(b) determine if any **settlement intervals** referred to in subsection 4(a~~) contain:~~):

(i) ~~any of the~~ occurred on days containing availability hours established in subsection 2(2); ~~or~~

(ii) ~~any of the~~ occurred on days containing delivery hours established in subsection 3(2); or

(iii) occurred on days containing hours in which the asset was subject to a **dispatch** in the energy market or responded to a **directive** for **ancillary services** for an amount greater than 0 MW;

and

(c) calculate the average **metered energy** in accordance with the following formula:

$$average\ metered\ energy = \frac{total\ metered\ energy}{settlement\ intervals}$$

where:

~~of~~(i) *total metered energy* is the **metered energy** for the **settlement intervals** referred to in subsection 4(a~~)~~):

(A) excluding the **metered energy** for the **settlement intervals** identified in subsections 4(b)(i) and 4(b)(ii); and

(B) including the addition of the volume of the **directive** for **ancillary services** or a **dispatch** in the **settlement intervals** identified in accordance with subsection 4(b~~).)~~(iii);

and

(ii) *settlement intervals* is the number of **settlement intervals** referred to in subsection 4(a).

Delivery Baseline for a Load Asset Providing Guaranteed Load Reduction

5(1) The **ISO** must, for each of the delivery hours established in subsection 3(2), calculate the standard day baseline in MW as follows:

(a) identify the **days** for the calculation which must be either:

(i) the 10 most recent **business days** prior to the **day** with the delivery hour if the delivery hour falls on a **business day**;

(ii) the 5 most recent weekend **days** or holidays prior to the **day** with the delivery hour if

the delivery hour falls on a weekend **day** or a holiday; or

(iii) the **days** the **ISO** specifies if, in the 35 **day** period prior to the **day** with the delivery hour, there are fewer than 10 **business days** and 5 weekend **days** when **days** identified in subsection 5(1)(b) are excluded or replaced;

(b) exclude or replace any of the **days** identified in subsection 5(1)(a) if the following occurred:

(i) the asset received a **dispatch** in the energy market, or responded to a **directive** for **ancillary services** for an amount greater than 0 MW;

(ii) delivery was assessed in accordance with subsection 9(1);

(iii) the load asset was subject to a **delayed forced outage** or **automatic forced outage**;

(iv) the load asset was subject to a **planned outage**; or

(v) the load asset was tripped for the provision of **load shed service**;

(c) for each of the **days** identified in accordance with subsections 5(1)(a) excluding or replacing the **days** as indicated in subsection 5(1)(b), identify the **metered energy** for the **settlement interval** with the same **hour ending** as the delivery hour; and

(d) calculate the average of the **metered energy** for the **settlement intervals** referred to in subsection 5(1)(c).

(2) The **ISO** must, for each delivery hour established in subsection 3(2), calculate an adjustment factor as follows:

$$adjustment\ factor = \frac{delivery\ consumption}{historical\ consumption}$$

where: ~~*adjustment factor =*~~

(a) *delivery consumption* ~~*÷ historical consumption$_{3W}$*~~

~~where:~~

~~delivery consumption means~~is the average consumption in MWh during the 3 hour window occurring 1 hour before the delivery hour; and

(b) *historical consumption* ~~means~~is the average consumption in MWh during all of the ~~3W hours~~3 hour windows occurring 1 hour before the same **hour ending** as the delivery hour on the **days** identified in accordance with subsections 5(1)(a) and excluding or replacing the **days** as indicated in subsection 5(1)(b~~); and~~).

~~3W means the 3 hour window occurring 1 hour before the same **hour ending** as the delivery hour.~~

(3) The **ISO** must establish the adjustment factor as:

(a) 1.2 if the adjustment factor calculated in accordance with subsection 5(2) is greater than 1.2;

(b) 0.8 if the adjustment factor calculated in accordance with subsection 5(2) is less than 0.8; or

(c) the value calculated in accordance with subsection 5(2) in all other cases.

(4) The **ISO** must calculate the delivery baseline in MW as follows:

$$delivery\ baseline = standard\ day\ baseline \times adjustment\ factor$$

where:

~~*delivery baseline* =~~ (a) *standard day baseline* ~~*x adjustment factor*~~

is ~~where:~~

the standard day baseline ~~in MW is~~ calculated in accordance with subsection 5(1); and

~~the~~ (b) *adjustment factor* is the ~~value~~adjustment factor established in accordance with subsection 5(3).

Asset-specific Penalty Rate for Availability Assessment

6(1) The **ISO** must calculate the asset-specific penalty rate in $/MWh to be applied during the availability assessment, as follows:

~~*asset-specific penalty rate* = $\frac{\text{capacity payment x 12}}{\text{capacity commitment x hours}}$~~

~~where:~~

$$asset\text{-}specific\ penalty\ rate = \frac{capacity\ award \times 12}{capacity\ commitment \times availability\ hours}$$

where:

(a) *capacity* ~~payment~~*award* in $/month is calculated for the asset in accordance with Section 103.10 of the **ISO rules**, *Capacity* ~~*Payment*~~*Award Calculation*;

(b) *capacity commitment* is ~~in MW~~the **capacity commitment** associated with the asset; and

(c) *availability hours* is the number of availability hours established in accordance with subsection 2(2).

(2) The **ISO** must establish the asset-specific penalty rate in $/MWh as:

(a) $133/MWh, if the rate calculated in accordance with subsection 6(1) is less than $133/MWh and the clearing price of the **base auction** was greater than $33/kW-year;

(b) $0/MWh, if the rate calculated in accordance with subsection 6(1) is less than $0/MWh and the clearing price of the **base auction** was less than or equal to $33/kW-year; or

(c) the rate calculated in accordance with subsection 6(1) in all other cases.

Availability Assessment

7(1) The **ISO** must, as soon as practicable after an **obligation period**, identify the asset's availability volume in MWh during each of the availability hours identified in subsection 2 as follows:

(a) for an asset with a **uniform capacity value** based on a capacity factor as determined in Section 206.3 of the **ISO rules**, *Uniform Capacity Value Determination*, availability volume is ~~based on~~ the sum of the following for each **settlement interval**, as applicable:

(i) **metered energy**;

(ii) in the case of an asset that was subject to a **dispatch** for **spinning reserve** or **supplemental reserve**, the volume that was provided according to Section 205.5 of

the **ISO rules**, *Spinning Reserve Technical Requirements and Performance Standards* or Section 205.6 of the **ISO rules**, *Supplemental Reserve Technical Requirements and Performance Standards*;

(iii) in the case of an asset that provides **regulating reserve**, the volume based on the **regulating reserve** provided pursuant to Section 205.4 of the **ISO rules**, *Regulating Reserve Technical Requirements and Performance Standards* that is not captured as **metered energy**; and

(iv) in the case of an asset that was impacted by a **transmission market constraint**, the volume that was curtailed;

(b) for an asset with a **uniform capacity value** based on availability factor as determined in Section 206.3 of the **ISO rules**, *Uniform Capacity Value Determination*, availability volume is equal to:

(i) the **available capability** submitted into the Energy Trading System where the ~~**offer** for~~ electric energy was available for **dispatch** for that **settlement interval**; ~~and~~or

~~(ii) if applicable, any **operating reserves** provided in that **settlement interval** pursuant to a **dispatch**; or~~

~~(ii)~~ (ii) 0 MW when there was no electric energy from the asset available for dispatch for that **settlement interval**;

(c) for a load asset ~~that provides a~~providing **guaranteed load reduction**, availability volume is the **available capability** for that **settlement interval**;

(d) for a load asset ~~that provides a~~providing **firm consumption level**, availability volume is based on the difference between the look-back baseline calculated in accordance with subsection ~~3~~4 and the asset's **firm consumption ~~level~~level**as declared for ~~that **settlement interval**~~the **obligation period**;

(e) for self-supply assets that are dispatched gross to grid, availability volume is based on the linear regression approach set out in Section 206.3 of the **ISO rules**, *Determination of Uniform Capacity Value*; and

(f) for an import asset, availability volume is the **available capability** for that **settlement interval** capped at the volume of long term firm transmission ~~established in accordance with Section 206.1 of~~**capacity** for the ~~**ISO Rules**, *Qualification of Capacity*~~asset subject to a **capacity commitment**.

(2) The **ISO** must calculate the assessment volume in MWh for an asset ~~as follows~~in accordance with the following formula:

$$assessment\ volume = \left[\sum availability\ volume\right] - capacity\ commitment \times availability\ hours$$

where:

~~*assessment volume* = ∑availability volume – **capacity commitment** x *hours*~~

(a) *availability volume* is the ~~where:~~

availability volume in MWh ~~is the value~~ identified ~~for each of the availability hours in accordance with~~ in subsection 7(1~~);~~), as applicable;

(b) *capacity commitment* is the **capacity commitment** associated with the asset; and

(c) *availability hours* is the number of availability hours established in accordance with subsection 2~~(2)~~.

Under-availability Adjustment

8(1) The **ISO** must, when the assessment volume calculated in accordance with subsection 7(2) is negative, calculate the under-availability adjustment in dollars for an asset ~~as follows~~subject to a **capacity commitment** in accordance with the following formula:

$$under\text{-}availability\ adjustment\ =\ adjustment\ rate\ \times\ assessment\ volume$$

where:~~*under-availability*~~

(a) *adjustment* ~~=~~is the adjustment rate ~~*x assessment volume*~~

~~where:~~

~~adjustment rate~~ in $/MWh ~~is~~ calculated in accordance with subsection 8(2); and

(b) *assessment volume* is the assessment volume in MWh ~~is~~ calculated in accordance with subsection 7(2).

(2) The **ISO** must, in calculating the under-availability adjustment under subsection 8(1), calculate the adjustment rate ~~in $/MWh,~~ for each asset~~, as follows~~ in accordance with the following formula:

$$adjustment\ rate\ =\ 0.4\ \times\ 1.3\ \times\ asset\text{-}specific\ penalty\ rate$$

where:

~~*adjustment rate = 40% x 1.3 x* (a)~~ *asset-specific penalty rate*

is the ~~where:~~

asset-specific penalty rate in $/MWh ~~is~~ determined in accordance with subsection 6(2).

(3) The **ISO** must, for each asset, limit the under-availability adjustment amount for an **obligation period** to:

(a) an amount in dollars equal to the annual cap determined in accordance with subsection 14(2) or 14(3), as applicable, minus the sum of all under-delivery adjustments determined in accordance with subsection 12(3) for the **obligation period**, if the sum of the under-availability adjustment determined in accordance with subsection 8(1) and under-delivery adjustments for the **obligation period** is greater than the annual cap; or

(b) the amount in dollars calculated in accordance with subsection 8(1), in all other cases.

Over-availability Adjustment

9(1) The **ISO** must, when the assessment volume calculated in accordance with subsection 7(2) is positive, calculate the over-availability adjustment in dollars for an asset ~~as follows~~subject to a **capacity commitment** in accordance with the following formula:

~~*over-availability adjustment = adjustment rate x assessment volume*~~

$$over\text{-}availability\ adjustment\ =\ adjustment\ rate\ \times\ assessment\ volume$$

where:

(a) *adjustment rate* is the ~~value~~ adjustment rate calculated in accordance with subsection 9(2); and

(b) *assessment volume* is the volume in MWh ~~is~~ calculated in accordance with subsection 7(2).

(2) The **ISO** must, in calculating the over-availability adjustment in subsection 9(1), calculate the adjustment rate in $/MWh~~, which is the same value for all assets, as follows~~ in accordance with the following formula:

$$|adjustment\ rate| = \frac{\sum under\text{-}availability\ adjustments}{\sum positive\ assessment\ volumes}$$

where:

~~$$adjustment\ rate = \frac{\sum under-availability\ adjustments}{\sum positive\ assessment\ volumes}$$~~

(a) ~~where:~~

under-availability adjustments ~~in dollars is~~is the sum of all under-availability adjustments determined in accordance with 8(3) for all assets subject to a **capacity commitment** in an **obligation period**; and

(b) *positive assessment volumes* ~~in MWh~~ is the sum of all positive ~~values~~assessment volumes calculated in accordance with subsection 7(2) for all assets subject to a **capacity commitment** in an **obligation period**.

(3) The **ISO** must, for each asset, limit the over-availability adjustment amount for an **obligation period** to an amount in dollars equal to the annual cap determined in accordance with subsection 15 minus the sum of all over-delivery adjustments determined in accordance with subsection 13(3) for the **obligation period**.

Asset-specific Penalty Rate for Delivery Assessments

10(1) The **ISO** must calculate the asset-specific penalty rate in $/MWh for an asset, to be applied during the delivery assessments~~, as follows~~ in accordance with the following formula:

~~$$asset\text{-}specific\ penalty\ rate = \frac{\text{capacity payment x 12}}{\text{capacity commitment x hours}}$$~~

~~where:~~

$$asset\text{-}specific\ penalty\ \ rate = \frac{capacity\ award \times 12}{capacity\ commitment \times delivery\ hours}$$

where:

(a) *capacity* ~~payment~~*award* is the capacity award in $/month ~~is~~ calculated for the asset in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation*;

(b) *capacity commitment* is the **capacity commitment** associated with an asset; and

(c) *delivery hours* is the greater of~~-~~:

(i) 20; or

(ii) the forecasted number of energy supply shortfall hours for the **obligation period** as ~~described~~given in the *Capacity Market Auction Guidelines* published for the last **rebalancing auction** of the **obligation period**.

(2) The **ISO** must establish the asset-specific penalty rate ~~in $/MWh~~ as:

(a) $1,667/MWh, if the rate calculated in accordance with subsection 10(1) is less than $1,667/MWh and the clearing price of the ~~-~~**base auction** was greater than $33/kW-year;

(b) $0/MWh, if the rate calculated in accordance with subsection 10(1) is less than $0/MWh and the clearing price of the **base auction** was less than or equal to $33/kW-year~~-~~; or

(~~b~~c) the rate calculated in accordance with subsection 10(1~~)~~), in all other cases.

Delivery Assessments

11(1) The **ISO** must, as soon as practicable in the **settlement period** following each delivery hour established in subsection 3(2), identify an asset's delivery volume in MWh during each of the delivery hours as follows:

(a) for an asset with a **uniform capacity value** based on a capacity factor or availability factor, ~~the~~ delivery volume is based on the sum of the following for each **settlement interval**, as applicable:

(i) **metered energy**;

(ii) in the case of an asset that was subject to a **dispatch** for **spinning reserve** or **supplemental reserve**, the volume that was provided ~~according to~~in accordance with Section~~-~~ 205.5 of the **ISO rules**, *Spinning Reserve Technical Requirements and Performance Standards* or Section 205.6 of the **ISO rules**, *Supplemental Reserve Technical Requirements and Performance Standards*; and

(iii) in the case of an asset that ~~provided~~ was subject to a **dispatch** for **regulating reserve**, the volume ~~based on the **regulating reserve**~~that was provided ~~pursuant to~~in accordance with Section 205.4 of the **ISO rules**, *Regulating Reserve Technical Requirements and Performance Standards* that is not captured as **metered energy**;

(b) for a load asset that provides a **guaranteed load reduction**, the delivery volume is equal to the delivery baseline calculated in accordance with subsection 5(4) minus the following for each **settlement interval**, as applicable:

(i) **metered energy**; ~~and~~

(ii) in the case of an asset that ~~provided~~ was subject to a **dispatch** for **spinning reserve** or **supplemental reserve**, the volume that ~~was dispatched.~~the volume that was provided in accordance with Section 205.5 of the **ISO rules**, *Spinning Reserve Technical Requirements and Performance Standards* or Section 205.6 of the **ISO rules**, *Supplemental Reserve Technical Requirements and Performance Standards*; and

(iii) if the delivery hour occurred on a **day** in which the load asset was subject to a **planned outage**, **delayed forced outage** or **automatic forced outage**,excluding the first **day** of that **planned outage**, **delayed forced outage** or **automatic forced outage**, the volume equal to the delivery baseline calculated in accordance with subsection 5(4);

(c) for a load asset that provides a **firm consumption level**, ~~the~~ delivery volume is equal to the qualified baseline as calculated in accordance with Section 206.3 of the **ISO rules**,

Determination of Uniform Capacity Value minus the following for each **settlement interval**, as applicable:

(i) **metered energy**; ~~and~~

(ii) in the case of an asset that provided **spinning reserve** or **supplemental reserve**, the volume that was dispatched~~.~~; and

(iii) if the delivery hour occurred on a **day** in which the load asset was subject to a **planned outage**, **delayed forced outage** or **automatic forced outage**, excluding the first **day** of that **planned outage**, **delayed forced outage** or **automatic forced outage**, the volume equal to the qualified baseline calculated in accordance with Section 206.3 of the **ISO rules**, *Determination of Uniform Capacity Value*;

(d) for self-supply configurations with excess generation, ~~the~~ delivery volume is based on **metered energy**; and

(e) for an import asset, ~~the~~ delivery volume is~~:~~ the lesser of:

(i) the long term firm transmission capacity associated with the import asset; or

(ii) the sum of:

(A) the volume in a validated **e-tag**; ~~or~~and

~~(ii)~~ (B) where the **offer** price is greater than or equal to $0.01 ~~per~~/ MWh ~~during the first two delivery hours that are~~and the asset is subject to the limits referenced in Section 303.2 of the **ISO rules**, *Available Transfer Capability*, the volume in the **offer** during the first 2 delivery hours where the asset is subject to the limits.

(2) The **ISO** must adjust the delivery volumes identified in subsection 11(1) ~~for each delivery hour to include any~~ as follows:

(a) in the case of delivery volume ~~adjustments due to any~~ substitutions ~~which was~~ approved in accordance with Section 206.9 of the **ISO rules**, *Asset Substitution*~~, and as follows:~~ add or subtract the applicable volume;

(~~a~~b) in the case of an asset that was impacted by a **transmission market constraint**, add the volume that was curtailed ~~will be added~~ to the delivery volume ~~identified in subsection 11(1);~~;

(~~b~~c) in the case of a load asset that was subject to a **dispatch** and armed for the provision of **load shed service**, add the **dispatch** volume that was armed ~~will be added~~ to the delivery volume ~~identified~~ ; or

(d) in ~~subsection 11(1); or~~the case of volume reallocations in accordance with Section 206.10 of the **ISO rules**, *Volume Reallocation* add or subtract the applicable volume.

~~(c) in all other cases, no adjustments to the delivery volume identified in subsection 11(1).~~

(3) The **ISO** must calculate the assessment volume in MWh for an asset subject to a **capacity commitment** during each delivery hour established in subsection 3(2) as follows:

$$assessment\ volume =$$

$$delivery\ volume - (capacity\ commitment \times supply\ shortfall\ duration \times balancing\ ratio)$$

where:

~~*assessment volume = delivery volume – (capacity commitment volume x balancing ratio)*~~

(a) *delivery volume* is the ~~where:~~

delivery volume in ~~MWh is the value in~~ identified in ~~subsection~~subsections 11(1) and 11(2);

(b) *capacity commitment* ~~volume in MWh means the quantity of electric energy expected to be delivered from an asset based on its~~ is the **capacity commitment** ~~during the supply shortfall hour or portion thereof; and~~associated with the asset;

(c) supply shortfall duration is the minutes of the supply shortfall event in the settlement interval divided by 60 minutes; and

(d) *balancing ratio* is the ~~value~~balancing ratio calculated in subsection 11(~~5~~4).

(4) The **ISO** must ~~establish~~, in calculating the assessment volume in ~~MWh for an asset for each delivery hour established in~~ subsection 11(3~~(2) as follows:~~

~~(a) for an asset with a **uniform capacity value** based on a **capacity factor** or **availability factor**, the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the **ISO rules**, *Volume Reallocation*;~~

~~(b) for self-supply configurations with excess generation the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the **ISO rules**, *Volume Reallocation*;~~

~~(c) for an import asset, the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the **ISO rules**, *Volume Reallocation*; or~~

~~(d) for a load asset that provides a **guaranteed load reduction** or a **firm consumption level**:~~

~~(i) if the delivery hour occurred on a **day** which the load asset was subject to a **delayed forced outage** or **automatic forced outage**, that is not the first day of that **delayed forced outage** or **automatic forced outage**, the assessment volume is 0 MWh;~~

~~(ii) if the supply shortfall hour occurred on a **day** which the load asset was subject to a **planned outage**, the assessment volume is 0 MWh; or~~

~~(iii) in all other cases, the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the **ISO rules**, *Volume Reallocation*.~~

~~**(5)** The **ISO** must~~), calculate for each delivery hour established in subsection 3(2), the balancing ratio ~~as follows~~in accordance with the following formula:

$$balancing\ ratio\ =\ min\left\{\frac{\sum delivery\ volume}{\sum capacity\ commitment}, 1\right\}$$

where:

~~*balancing ratio = min{* $\frac{\sum delivery\ volumes}{\sum capacity\ commitment\ volumes}$ *, 1}*~~

~~where:~~

(a) *delivery volume* is the sum of the delivery volumes ~~in MWh is the values identified~~calculated

in subsection 11(2) for all assets subject to a **capacity commitment** ~~in an **obligation period**~~; and

~~capacity commitment volumes in MWh means, for each asset subject to a **capacity commitment** in an **obligation period**, the quantity of electric energy expected to be delivered from an asset based on its **capacity commitment** during the supply shortfall hour or portion thereof.~~

(b) *capacity commitment* is the sum of the **capacity commitments** associated with all assets.

Under-delivery Adjustment

12(1) The **ISO** must, ~~when~~if the assessment ~~value~~volume determined in accordance with subsection 11(43) is negative, calculate the under-delivery adjustment in dollars for an asset ~~as follows~~subject to a **capacity commitment** in accordance with the following formula:

$$under\text{-}delivery\ adjustment = adjustment\ rate \times assessment\ volume$$

where:

~~*under-delivery adjustment =*~~ (a) *adjustment rate* ~~*x assessment volume*~~

~~where:~~

~~adjustment rate in $/MWh~~ is the adjustment rate calculated in ~~accordance with~~ subsection 12(2); and

(b) *assessment volume* is the assessment volume ~~in MWh is the value~~ determined in ~~accordance with~~ subsection 11(43).

(2) The **ISO** must, in calculating the under-delivery adjustment rate in subsection 12(1), calculate the adjustment rate in $/MWh ~~as follows~~in accordance with the following formula:

$$adjustment\ rate = 0.6 \times 1.3 \times asset\text{-}specific\ penalty\ rate$$

where:

~~*adjustment rate = 60% x 1.3 x*~~ (a) *asset-specific penalty rate*

~~where~~ is the asset-specific penalty rate ~~in $/MWh is~~ determined in ~~accordance with~~ subsection 10~~(2).~~.

(3) The **ISO** must, for each asset, cap the under-delivery adjustment amount for each **settlement period** ~~to~~at the lesser of:

(a) the monthly cap determined in accordance with subsection 14(1~~);~~), as applicable; or

(b) an amount equal to the annual cap determined in accordance with subsection 14(2) or 14(3), as applicable, minus the sum of all under-delivery adjustments calculated in accordance with this subsection 12(3) for the prior **settlement periods** of the **obligation period**.

Over-delivery Adjustment

13(1) The **ISO** must, when the assessment ~~value~~volume determined in accordance with subsection 11(43) is positive, calculate the over-delivery adjustment in dollars for an asset ~~as follows~~subject to a **capacity commitment** in accordance with the following formula:

~~over-delivery~~ $over\text{-}delivery\ adjustment = adjustment\ rate \times assessment\ volume$

where:

(a) *adjustment* ~~=~~*rate* is the adjustment rate ~~x assessment volume~~

~~where:~~

~~adjustment rate in $/MWh is~~ calculated in ~~accordance with~~ subsection ~~-~~ 13(2); and

(b) *assessment volume* is the assessment volume ~~in MWh is the value~~ determined in ~~accordance with~~ subsection 11(~~4~~3).

(2) The **ISO** must, in calculating the over-delivery adjustment in subsection 13(1), calculate the adjustment rate in $/MWh ~~as follows~~in accordance with the following formula:

~~*adjustment rate* = $\frac{\sum under-delivery\ adjustments}{\sum positive\ assessment\ volumes}$~~

~~where:~~

$$|adjustment\ rate| = \frac{\sum under\text{-}delivery\ \ adjustments}{\sum positive\ assessment\ volumes}$$

where:

(a) *under-delivery adjustments* is sum of the under-delivery adjustments in dollars ~~is~~ determined in accordance with 12(3) for all assets subject to a **capacity commitment** in an **obligation period**; and

(b) *positive assessment volumes* ~~in MWh are~~is the sum of all positive ~~values~~assessment volumes calculated in accordance with subsection 11(~~4~~3) for all assets subject to a **capacity commitment** in an **obligation period**.

(3) The **ISO** must, for each asset, limit the over-delivery adjustment amount in dollars for a **settlement period** to an amount equal to the annual cap determined in accordance with subsection 15 minus the sum of all over-delivery adjustments determined in accordance with this subsection 13(3) for the prior **settlement periods** of the **obligation period**.

Maximum Payment Adjustments for Under-availability and Under-delivery

14(1) The **ISO** must cap under-delivery adjustments for ~~each~~an asset~~, any under-delivery adjustment for~~ during a **settlement period** at ~~an amount in dollars equal to~~:

(a) ~~*monthly cap =*~~ 3 times the capacity ~~*payment x 3*~~

~~where capacity payment in $/month is the asset's monthly capacity payment~~award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation*; or

~~(b) *monthly cap = default rate x*~~ (b) an amount calculated in accordance with the following formula, if the asset-specific penalty rate for an asset's delivery assessments is established at $1,667/MWh in accordance with subsection 10(2)(a):

$$monthly\ under\ delivery\ payment\ adjustment\ cap = default\ rate \times capacity\ commitment\ /\ 12 \times 3$$

where:

(i) *default rate* is $33/kW-year * 1000; and

(ii) *capacity commitment* ~~*x max{supply shortfall hours, 20}*~~is the **capacity commitment** associated with the asset.

~~where the default rate is $417/MW.~~

(2) The **ISO** must ~~cap for each asset,~~, subject to subsection 14(3), cap the sum of any under-availability adjustment and under-delivery adjustments for an asset in an **obligation period** at an amount in dollars calculated in accordance with the following formula:

$$annual\ under\ performance\ cap\ =\ capacity\ award\ \times\ 12\ \times\ 1.3$$

where:

(a) *capacity award* is the asset's monthly capacity award calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Award Calculation*.

(3) The **ISO** must, if the asset-specific penalty rate for an asset's availability assessment is established at $133/MWh in accordance with subsection 6(2)(a), or if the asset-specific penalty rate for an asset's delivery assessments is established at $1,667/MWh in accordance with subsection 10(2)(a), cap the sum of any under-availability adjustment and under-delivery adjustments for ~~each~~such asset in an **obligation period** at an amount in dollars equal to ~~the greater of~~:

$$annual\ under\ performance\ cap\ =\ default\ rate\ \times\ capacity\ commitment\ \times\ 1.3$$

where:

(a) ~~*annual cap = capacity payment*~~*default rate* is $33/kw-year x ~~*12 x 1.3*~~1000; and

~~where capacity payment in $/month is the asset's monthly capacity payment calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity Payment Calculation*; or~~

(b) ~~*annual cap = default rate x*~~ *capacity commitment*

~~where the default rate is $33,333/MW~~ is the **capacity commitment** associated with an asset.

Maximum Payment Adjustments for Over-availability and Over-delivery

15(1) The **ISO** must, notwithstanding subsection 15(2), cap ~~for each asset,~~ the sum of any over-availability adjustment and over-delivery adjustments for an **obligation period** at an amount in dollars ~~equal to the greater of~~for an asset in accordance with the following formula:

$$annual\ over\ performamce\ cap\ =\ capacity\ award\ \times\ 12$$

where:

(a) ~~*annual cap =*~~ *capacity* ~~*payment x 12*~~

~~where capacity payment means~~ *award* is the ~~assets~~asset's monthly capacity ~~payment~~award in ~~dollars determined~~$/month calculated in accordance with Section 103.10 of the **ISO rules**, *Capacity ~~Payment~~Award Calculation*~~; or~~.

~~(b) *annual cap = default rate x* ***capacity commitment***~~

(2) The **ISO** must, if the asset-specific penalty rate for an asset's availability assessment is established at $133/MWh in accordance with subsection 6(2)(a) or if the asset-specific penalty rate for an asset's delivery assessments is established at $1,667/MWh in accordance with subsection 10(2)(a), cap the sum of any over-availability adjustment and over-delivery adjustments for each **obligation period** at an

amount in dollars for such asset in accordance with the following formula:

$$annual\ over\ performance\ cap = default\ rate \times capacity\ commitment$$

where ~~the~~ :

(a) *default rate* is $33~~,333/MW~~/kw-year x 1000; and

(b) *capacity commitment* is the **capacity commitment** associated with an asset.

Revision History

Date	Description
xxxx-xx-xx	Initial release

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.10 Volume Reallocation

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.10 applies to:

(a) a **capacity market participant**; and

(b) the **ISO**.

Requirements

~~Eligible~~Notification of Reallocation Volumes ~~for a Supply Shortfall Event~~

2 The **ISO** must, if an asset was assessed an over-delivery adjustment or under-delivery adjustment on a preliminary capacity market statement issued in accordance with Section 103.9 of the **ISO rules**, *Capacity Market Financial ~~Statement~~Settlement*, inform a **capacity market participant** no later than 1 **business day** following the issuance of the preliminary capacity market statement of the following for each delivery hour determined in accordance with Section 206.8 of the **ISO rules**, *Forward Period Obligation Performance Assessment*:

(a) the asset's delivery volume in MWh;

(b) the balancing ratio; and

(c) the asset's ~~positive~~over-delivery or ~~negative~~ under-delivery assessment volume, as applicable, determined in accordance with Section 206.8 of the **ISO rules**, *Obligation Performance Period Assessments* which was included on the preliminary capacity market statement.

Volume Reallocation Request

3(1) A **capacity market participant** must, in order to reallocate ~~positive or negative~~ an over-delivery assessment ~~volumes~~volume or under-delivery assessment volume between different assets, submit a complete ~~request to reallocate volumes~~application, available on the AESO website, to the **ISO** no later than 5 **business days** following receipt of the ~~volume reallocation~~ information ~~issued~~provided in accordance with subsection 2.

(2) A **capacity market participant** must include in the ~~request~~application referred to in subsection 3(1) ~~include~~ the following ~~information to the **ISO**~~:

(a) the unique identifier of the asset with ~~positive~~ the over-delivery assessment volume;

(b) the unique identifier of the asset with ~~negative~~ the under-delivery assessment volume;

(c) ~~evidence of agreement to reallocate between~~verification that all capacity market participants ~~for the assets~~agree to the reallocation;

(d) the ~~supply shortfall~~delivery hour for which the ~~volume~~ reallocation applies; and

(e) the proposed reallocation volume in MWh~~, which must be an integer value;~~.

~~(f) if the **capacity market participant** is proposing multiple volume reallocation requests for the same asset during the supply shortfall hour or portion thereof, the total of all other proposed reallocation volumes to other assets.~~

(3) The **ISO** may request additional clarification or information regarding a volume reallocation ~~request~~application or supporting documents from the **capacity market participant**.

Volume Reallocation Approval

4(1) The **ISO** must, based on the information in the ~~volume reallocation request and any supporting documents~~application provided ~~pursuant to~~in accordance with subsection ~~3,~~3(1), be satisfied that:

(a) ~~one~~for the asset ~~has a positive~~ with an over-delivery assessment volume ~~and the other asset has a negative delivery assessment volume;~~;

~~(b) the volume reallocation is in respect of the same supply shortfall hour;~~

~~(c) for the asset with a positive delivery assessment volume:~~

(i) the proposed reallocation volume is less than or equal to the ~~positive~~ over-delivery assessment volume of the asset ~~as set out in accordance with subsection 2~~; and

(ii) if the asset is participating in volume reallocation with multiple other assets, the sum of any proposed or approved reallocation volumes from the asset ~~to all other assets~~ must be less than or equal to the ~~positive~~ over-delivery assessment volume of the asset ~~as set out in accordance with subsection 2~~;

(~~d~~b) for the asset with a ~~negative~~ under-delivery assessment volume:

(i) the ~~magnitude of the~~ proposed reallocation volume is less than or equal to the ~~magnitude of the negative~~ under-delivery assessment volume of the asset ~~as set out in accordance with subsection 2~~; and

(ii) if the asset is participating in volume reallocation with multiple other assets, the ~~magnitude~~sum of ~~the sum~~ any proposed or approved reallocation volumes from the asset ~~to all other assets~~ must be less than or equal ~~to~~ the ~~magnitude of the negative~~ under-delivery assessment volume of the asset ~~as set out in accordance with subsection 2~~;

~~-~~and

(c) the proposed volume reallocation is in respect of the same delivery hour.

(2) The **ISO** must approve the ~~reallocation volume requested pursuant to~~ application referred to in subsection 3 ~~for an asset~~ if:

(a) the ~~request made pursuant to subsection 3~~application is complete; and

(b) the **ISO** is satisfied pursuant to subsection 4(1).

Adjustments of Approved Reallocated Volumes

5 The **ISO** must adjust approved reallocation volumes ~~if the approved reallocation volumes were not based on~~ to reflect energy ~~determined~~specified on the final capacity market statement issued on a final basis ~~from the **settlement period** 5 months following the **month**~~in accordance with ~~the applicable delivery hour~~Section 103.9 of the **ISO rules**, *Capacity Market Financial Settlement*.

~~Revisions to Delivery Assessment~~Allocation of Approved Reallocation Volumes

6(1) The **ISO** must~~, recalculate~~ apportion the ~~under-~~over delivery ~~adjustment or over-~~volume to any assets with under delivery ~~adjustment~~ volume approved for ~~an asset pursuant to Section 206.8 of the **ISO rules**, *Obligation Period Performance Assessments* to account for any~~ reallocation ~~volumes approved and adjusted pursuant to subsection 5 for the relevant **settlement period**.~~

~~**(2)** The **ISO** must replace the applicable under-delivery adjustment or over-delivery adjustment for the asset which were included~~ in the ~~preliminary capacity market statement for~~order that ~~**settlement period** with the updated under-delivery adjustment or over-delivery adjustment recalculated in accordance with subsection 5 for the final capacity market statement for that **settlement period**~~the request for reallocation

was received.

Revision History

Date	Description
xxxx-xx-xx	Initial release

ISO Rules
Part 200 Markets
Division 206 Capacity Market
Section 206.11 Energy and Ancillary Services Offset for Assets

External Consultation Draft
~~August 31~~October 22, 2018

Applicability

1 Section 206.11 applies to:

(a) the **ISO**; and

(b) a **capacity market participant** requiring an energy and ancillary services offset for ~~and~~an asset.

Requirements

Information for Energy and Ancillary Services Offset Calculation

2 The **capacity market participant** must, in accordance with the timelines prescribed in the *Capacity Market Auction Guidelines*, provide the following information to the **ISO** for the **obligation period** or a portion of the **obligation period**, as applicable:

(a) the fuel consumption efficiency of an asset in GJ/MWh for the **obligation period** *t*;

(b) for a thermal **generating unit**'s or thermal **aggregated generating facility**'s that is not fueled by natural gas, the expected variable cost of fuel for the asset in $/GJ, including variable transportation charges for the **obligation period** *t*;

(c) the variable operations and maintenance costs of an asset in $/MWh for **obligation period** *t*, excluding fuel related costs and amortized or capitalized costs;

(d) the tonnes of CO_2/MWh emitted by the asset when producing electricity;

(e) for a wind or solar **aggregated generating facility**, hydro **generating unit**, **energy storage facility**, or a thermal **generating unit** or an **aggregated generating facility**:

(i) anticipated **forced outages** and derating values in percentages; and

(ii) expected forward product energy production in MWh and substantiating evidence;

(f) for all other assets not specified in subsection 3(e):

(i) seasonal ambient derates; and

(ii) anticipated **planned outages** and **forced outages**;

(g) the revenues in dollars received from other sources outside of the electricity market that are directly related to production in the **obligation period**; and

(h) expected **ancillary services** revenues in dollars for products other than **spinning reserve**, **supplemental reserve** and **regulating reserve**.

Calculation of Energy and Ancillary Services Offset for Assets

~~2~~3(1) The **ISO** must, when required under Section 201.15 of the **ISO rules**, *Delisting* and Section 206.~~8~~7 of the **ISO rules**, *Capacity Market Mitigation,* for every **obligation period** or portion of an **obligation period**, calculate the energy and ancillary services offset value in accordance with the following formula:

~~$$\text{EAS Offset}_t = \frac{(\text{Forward Power Price}_t - \text{Energy Market Expense}_t) \times \text{Forward Product Energy}_t + \textit{Other non-electricity market revenues}}{\text{Nameplate Capacity} \times 1000}$$~~

$$Energy\ and\ ancillary\ services\ offset_t = \frac{(forward\ power\ price_t - energy\ market\ expense_t) \times forward\ product\ energy_t + other\ revenues}{maximum\ capability \times 1000}$$

where~~:~~:

(~~i~~a) *t* equals the **obligation period** or portion of an **obligation period**, for which the energy and ancillary services offset is being determined;

~~(ii) EAS Offset $_t$ in $/kW, is the revenue less variable cost offset of the asset and includes energy and ancillary services revenues as well as all other non-electricity market revenues the asset may be expected to obtain such as revenues from the sale of renewable attributes an for **obligation period** *t*;~~

~~(iii) Forward Power Price $_t$ is in $/MWh and is the weighted average of the settlements matching the **obligation period** *t*, where the settlements are the average over a period determined by the **ISO**, of the published NGX forward power product in Appendix 1 that yields the highest EAS Offset $_t$ for **obligation period** *t*.~~

~~(iv) Energy Market Expense $_t$ is the energy market expenses for the asset in $/MWh~~(c) *forward power price* $_t$ is the forward power price for an asset for **obligation period** *t* calculated in accordance with subsection ~~2(5) below;~~3(4);

~~(v) Forward Product Energy~~ (d) *energy market expense* $_t$ is the energy market expense for the asset for **obligation period** *t* calculated in accordance with subsection 3(3);

(e) *forward product energy* $_t$ is the forward product energy value in MWh for **obligation period** *t* ~~calculated in accordance with subsection 2(4) below; and~~as follows:

~~(vi) Nameplate Capacity is the **maximum capability** of the asset.~~

~~**(2)** The **ISO** must, when determining the Forward Power Price $_t$~~ (i) for ~~hydro assets, a~~ wind ~~assets, storage assets,~~ or solar ~~assets and~~ **aggregated generating facility**, hydro **generating unit**, **energy storage facility**, or a thermal ~~assets~~**generating unit** or an **aggregated generating facility** with ~~an availability factor less than 50%, multiply the forward power price with a forward power price adjustment factor, as calculated in subsection 2(3).~~

~~**(3)** The **ISO** must calculate the forward power price adjustment factor as the realized energy renenues from the immediately preceeding **obligation period** divided by the average **pool price** from the immediately preceeding **obligation period** where the realized energy revenues equal hourly~~ expected production ~~of the asset in MWh multiplied by the **pool price** in each of those~~ hours~~.~~

~~**(4)** The **capacity market participant** must provide the **ISO** with the expectation of~~ less than 50% of the hours in **obligation period** *t*, the expected forward product energy production ~~in MWh for the asset during the **obligation period** t or a portion of an obligation period, for which the genertation is being determined~~provided in accordance

with 2(e); or

(5ii) for all other assets, calculated in accordance with subsection 3(2);

(f) *other revenues* is the revenues received from other sources outside of the electricity market and expected **ancillary services** revenues, provided in accordance with subsections 2(g) and 2(h); and

(g) *maximum capacity* is the **maximum capability** of the asset.

(2) The **ISO** must, in calculating the ~~EAS Offset~~ energy and ancillary services offset$_t$ under subsection ~~2~~3(1), calculate the *forward product energy*$_t$ in subsection 3(1)(e)(ii) in accordance with the following formula:

$$forward\ product\ energy_{\ t} = maximum\ capability \times (1 - forced\ outage\ and\ derating\ values) \times forward\ power\ product\ hours$$

where:

(a) *maximum capability* is the **maximum capability** of the asset;

(b) *forced outage and derating values* are the percentages provided in subsection 2(e)(i); and

(c) *forward power product hours* are the number of hours in the forward power product determined in subsection 3(4)(b)(i).

(3) The **ISO** must, in calculating the energy and ancillary services offset$_t$ under subsection 3(1) above, calculate the ~~Energy Market Expense$_t$ using~~ energy market expense$_t$ in accordance with the following formula:

~~Energy Market Expense$_t$~~
~~$= [\text{Forward Fuel Price}_t + (1 + \text{Commodity Fuel Charge}_t)] \times \text{Heat Rate}_t$~~
~~$+ \text{Variable Operations and Maintenance}_t$~~
~~$+ (\text{Emission Intensity} - \text{Established Benchmark}_t) \times \text{Carbon Price}_t + \text{Transmission Losses}_t$~~
~~$+ \text{Trading Charge}_t$~~

$$energy\ market\ expense_t = [forward\ fuel\ price_t \times (1 + commodity\ fuel\ charge_t)] \times heat\ rate_t + variable\ operations\ and\ maintenance_t + (emission\ intensity - established\ benchmark_t) \times carbon\ price_t + transmission\ losses_t + trading\ charge_t$$

where~~:~~:

(a) *t* equals the **obligation period**, or the portion of an **obligation period**, for which the energy and ancillary services offset is being determined;

~~(ii) Forward Fuel Price~~ $_{t}$ ~~is~~

~~(A) For~~(b) *forward fuel price* $_{t}$ in $/GJ is:

(i) if the thermal **generating unit**'s or **aggregated generating facility**'s fuel is natural gas ~~fueled assets:~~, the weighted average of the ~~settlements matching~~ settlement corresponding to **obligation period** *t*, where ~~the settlements~~such settlement are ~~the average over the period determined~~selected by the **ISO** ~~in subsection 2(1)(i), of~~ from either:

(A) the published NGX Phys, FP (CA/GJ), AB-NIT; or

(B) ~~For thermal assets that are~~if the NGX forward Phys, FP is unavailable or not ~~fueled by~~applicable for use in the calculation of the forward fuel price, another comparable industry standard natural gas~~: the **capacity market participant** must provide the **ISO**~~ benchmark for **obligation period** *t*;

(ii) if the thermal **generating unit**'s or thermal **aggregated generating facility**'s fuel is not natural gas, the expected variable cost of fuel ~~in $/GJ, including variable transporation charges, for the asset~~ during the **obligation period** *t*~~.~~ provided in subsection 2(b); and

(~~C) For~~iii) for non-thermal ~~assets: this variable does not apply~~**generating unit** or **aggregated generating facilities**, is 0.

~~(iii) Commodity Fuel Charge~~(c) *commodity fuel charge* $_{t}$ ~~relates to~~is:

(i) if thermal **generating unit's** or **aggregated generating facility**'s fuel is natural gas ~~fueled assets only and is~~, the most recent 12 **month** average of published NOVA Gas Transmission Ltd NGTL Fuel Usage and Measurement Variance~~;~~ expressed as a percentage; and

~~(iv) Heat Rate relates to thermal assets only; the **capacity market participant** must provide the **ISO** the fuel consumption efficiency of the asset in GJ/MWh for the **obligation period** t;~~

~~(v) Variable Operations and Maintenance~~ $_{t}$ ~~the **capacity market participant** must provide the **ISO** the~~ (ii) for all other assets, 0;

(d) *heat rate* is the heat rate provided in subsection 2(a);

(e) *variable operations and maintenance* $_{t}$ are the costs ~~of the asset for **obligation period** t~~provided in ~~$/MWh, excluding any fuel related costs and any amortized or capitalized costs;~~subsection 2(c);

~~(vi) Emission Intensity is the amount of CO2 emited by the asset when producing a MWh of electicity; the **capacity market participant** must provide the **ISO** the Emissions Intenstity for the asset in tonnes of CO2/MWh;~~

~~(vii)Established Benchmark~~ $_{t}$ (f) *emission intensity* is the tonnes of CO_2/MWh provided in subsection 2(d);

(g) *established benchmark*$_t$ is the weighted average of the calendar year values matching **obligation period** *t* for an established benchmark for electricity published by a public authority;

~~(viii) Carbon Price~~(h) *carbon price*$_t$ is the weighted average of the calendar year values matching **obligation period** *t* for the carbon price published by a public authority for carbon emissions in Alberta;

~~(ix) Transmission Losses~~(i) *transmission losses*$_t$ is the transmission loss value for **obligation period** *t* in $/MWh calculated as the loss factor of the asset multiplied by the ~~Forward Power Price~~forward power price$_t$ where:

(i) the loss factor is the most recent published loss factor for the asset published on the AESO website; and

(ii) ~~Forward Power Price~~ forward power price$_t$ for **obligation period** $_t$ is the value in subsection ~~2(1)(a)(iii).~~3(4), as applicable;

~~(x) Energy Market Trading Charge~~ and$_t$

(j) *energy market trading charge*$_t$ is the most recent energy market trading charge in $/MWh published on the AESO website.

(4) The **ISO** must in calculating the energy and ancillary services offset in subsection 3(1), calculate the forward power price$_t$ in $/MWh as follows:

(a) for a wind or solar **aggregated generating facility**, hydro **generating unit**, **energy storage facility**, or a thermal **generating unit** or an **aggregated generating facility** with expected production hours less than 50% of the hours in **obligation period** *t*, the NGX FP Flat forward power price multiplied by a forward power price adjustment factor calculated in subsection 3(5); or

(b) for all other assets, is the weighted average of the settlements matching the **obligation period** *t*, where the settlements are the average over a period determined by the **ISO** from either:

(i) the published NGX forward power products in Appendix 1 that yields the highest energy and ancillary services offset$_t$ for **obligation period** *t*; or

(ii) if the NGX forward power product is unavailable or not applicable for use in the calculation of the energy and ancillary services offset, another comparable industry standard that yields the highest energy and ancillary services offset$_t$ for **obligation period** *t*;

(5) The **ISO** must, in calculating the forward power price $_r$ in subsection 3(4)(a), calculate the forward power price adjustment factor in accordance with the following formula:

$$forward\ power\ price\ adjustment\ factor = \left(\frac{\sum\ (hourly\ production\ \times pool\ price)}{\sum hourly\ production}\right) \div annual\ average\ pool\ price$$

where:

(a) *hourly production* is the production of the asset in MWh in each hour from the **obligation period** or equivalent November 1 through October 31 period should an **obligation period** not yet have occurred, occurring most recently to the point in time at which the energy and ancillary services offset is calculated;

(b) *pool price* is the pool price for each hour for which production data is provided for in 3(5)(a) from the **obligation period** or equivalent November 1 through October 31 period should an **obligation period** not yet have occurred, occurring most recently to the point in time at which the energy and ancillary services offset is calculated; and

(c) *annual average pool price* is the average of all pool prices during the **obligation period** or equivalent November 1 through October 31 period should an **obligation period** not yet have occurred, occurring most recently to the point in time at which the energy and ancillary services offset is calculated.

Attestation and Assessment of Information

4(1) The **capacity market participant** must submit an attestation from a corporate officer of the **legal owner** that the information provided pursuant to subsection 2 is accurate.

(2) The **ISO** must request additional information from the **capacity market participant** concerning the information submitted in subsection 2 where the **ISO** determines such information appears unreasonable.

(3) The **ISO** must after requesting additional information pursuant to subsection 2:

(a) exclude costs provided in accordance with subsection 2 if the **ISO** determines that such costs are unreasonable; and

(b) adjust forward product energy production provided in accordance with subsection 2 if the **ISO** determines that such expected energy production is unreasonable.

Appendices

Appendix 1 – *List of Forward Power Products*

Revision History

Date	Description
yyyy-mm-dd	

Appendix 1 – List of Forward Power Products

Forward Power Product Names on NGX:

- NGX Fin FUT FF, FP for AESO Flat
- NGX Fin FUT FF, FP for AESO Ext Off Peak
- NGX Fin FUT FF, FP for AESO Ext Peak
- NGX Fin FUT FF, FP for AESO Off Peak
- NGX Fin FUT FF, FP for AESO On Peak
- NGX Fin FUT FF, FP for AESO Super Peak
- NGX Fin FUT FF, FP for AESO Hourly