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

Draft Version

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Applicability

1 Section 201.13 applies to:

(a) the **ISO**.

Requirements

Supply Curve for Rebalancing Auctions

2 The **ISO** must, for a **rebalancing auction**:

(a) include in the supply curve all previously awarded **capacity commitments** for the **obligation period**, less the **bids** described in subsection 2(b), priced at $0 in a single **flexible block** for each asset; and

(b) include all **bids** submitted for the **rebalancing auction**.

Clearing to Set Clearing Price and Target Volume

3(1) The **ISO** must, using the unconstrained clearing methodology in subsection 5, establish the clearing price for a **base auction** or **rebalancing auction** at the point on the final demand curve established in accordance with Section 207.4 of the **ISO rules**, *Shape of the Demand Curve*:

(a) that intersects with the supply curve; or

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

(2) The **ISO** must establish the target volume for a **base auction** or a **rebalancing auction** as the quantity of **capacity** cleared in accordance with the unconstrained clearing methodology in subsection 5 against the final demand curve.

Clearing to Establish Capacity Commitments

4(1) The **ISO** must establish **capacity commitments** for a **base auction** or **rebalancing auction** based on the volumes from **capacity blocks** that are cleared in accordance with the following process:

(a) clear volumes from **capacity blocks** using the unconstrained clearing methodology in subsection 5 against the final demand curve established in accordance with Section 207.4 of the **ISO rules**, *Shape of the Demand Curve*;

(b) update the volumes cleared from **capacity blocks** using the constrained clearing methodology in subsection 6, as applicable;

(c) if the update in subsection 4(1)(b) results in a reduction in cleared volumes, clear additional volumes using the unconstrained clearing methodology in subsection 5 against the target volume established in subsection 3(2); and

(d) if additional volumes were cleared in accordance with 4(1)(c), repeat the step in subsection 4(1)(b).

(2) The **ISO** must:

(a) award **capacity commitments** to the volumes from **capacity blocks** that clear in the **base auction** or **rebalancing auction** in accordance with subsection 4(1), except for the volumes

referred to in subsection 2; and

(b) reduce the volume of previously awarded **capacity commitments** for the **obligation period** to reflect the result of the application of the unconstrained methodology as described in subsection 4(1)(a).

Unconstrained Clearing Methodology

5(1) The **ISO** must, subject to subsection 5(2), use a clearing process for a **base auction** or **rebalancing auction** that clears **offers** and **bids** in a manner that maximizes social surplus to the extent practicable.

(2) The **ISO** must clear:

(a) a lower priced **capacity block** in an **offer** before a higher priced **capacity block** in the **offer**; and

(b) a higher priced **capacity block** in a **bid** before a lower priced **capacity block** in the **bid**.

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

(a) for a **rebalancing auction**, clear the volumes associated with the **capacity commitments** in subsection 2(a) before all other **capacity blocks**;

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

(c) clear the **flexible blocks** after pro-rating and randomly rounding the **flexible blocks** to a whole number;

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

(e) randomly clear the equivalent **inflexible blocks**.

(4) The **ISO** must, in the 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 pursuant to this subsection 5, replace the first **offer** with the second **offer**.

Constrained Clearing Methodology

6(1) The **ISO** must, in the event that the **ISO** determines that a limit on the **transmission system** in scenarios where all **transmission facilities** are in service while maintaining the reliable operation of the **interconnected electric system** for credible contingencies, or a limit on an Alberta **intertie** determined in accordance with subsection 7, may impact the ability of an asset to deliver electric energy to the **interconnected electric system** during the **obligation period**, clear the **capacity blocks** from assets behind the same limit, without clearing an amount of **capacity** that exceeds the limit, as follows:

(a) subject to subsection 6(1)(b), clear a lower priced **capacity block** before a higher priced **capacity block**;

(b) if clearing a lower priced **capacity block** would exceed the limit, clear a higher priced **capacity block** when such action minimizes the amount of uplift paid in accordance with subsection 8; and

(c) in the event that multiple **capacity blocks** are submitted at the same price, clear such **capacity blocks** in the following order of priority:

(i) for a **rebalancing auction**, clear the volumes associated with **capacity commitments** in subsection 2(a) before all other **capacity blocks**;

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

(iii) clear the **flexible blocks** after pro-rating and randomly rounding the **flexible blocks** to a whole number;

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

(v) randomly clear the equivalent **inflexible blocks**.

(2) The **ISO** must, in the event that the **ISO** determines that a limit on the **transmission system** in scenarios where all **transmission facilities** are in service while maintaining the reliable operation of the **interconnected electric system** for credible contingencies, may impact the ability of an asset with volumes cleared pursuant to the unconstrained methodology in subsection 5 to connect to the **interconnected electric system**:

(a) determine whether an asset is likely able to connect as follows:

(i) determine the weighted average **offer** price of each asset that is potentially impacted by a limit considering all **capacity blocks** in the **offer** associated with the asset;

(ii) prioritize the assets based on lowest to highest weighted average **offer** price;

(iii) if 2 or more assets have the same weighted average **offer** price, prioritize the assets as follows:

(A) use the highest percentage of the assigned **uniform capacity value** contained in **capacity blocks** that cleared in the unconstrained methodology in subsection 5; or

(B) if 2 or more assets have the same percentage of **uniform capacity value** in subsection 6(2)(a)(iii)(A), randomly prioritize the assets;

(iv) assess each asset in the order of priority determined in accordance with subsections 6(2)(a)(ii) and 6(2)(a)(iii), as applicable; and

(v) when conducting an assessment in subsection 6(2)(a)(iv), assume that all assets previously assessed and determined as likely able to connect to be connected in such assessment;

and

(b) clear all the **capacity blocks** from assets that have been determined likely able to connect in accordance with 6(2)(a) where such **capacity blocks** have cleared pursuant to the unconstrained methodology in subsection 5.

(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 such limit.

(4) The **ISO** must, in the 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 pursuant to subsections 6(1) or 6(2), as applicable, replace the first **offer** with the second **offer**.

Transfer Path Limit Calculation

7(1) The **ISO** must 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 in accordance with the following formula:

$$supply\ cushion =$$

$$\sum_{i=1}^{n}(time\ weighted\ available\ MW_t - time\ weighted\ dispatched\ MW_t) - time\ weighted\ TMR\ dispatched_t$$

where:

(i) *n* is the number of offer blocks in the energy market **merit order**;

(ii) *time weighted available MW* is the amount of MW in the **energy market** merit order during hour *t* with the weight being proportional to the duration of the **available capability** within hour *t*;

(iii) *time weighted dispatched MW* is the amount of MW in the energy market **merit order** that were subject to a **dispatch** in hour *t* with the weight being proportional to the time the **dispatch** was in effect within hour *t*;

(iv) and

(v) *time weighted TMR dispatched* is the amount of MW subject to a **dispatch** for **transmission must-run** in hour *t* with the weight being proportional to the time the **dispatch** was in effect within hour *t*.

(b) rank all hours based on the supply cushion calculated in subsection 7(1)(a) in ascending order;

(c) within the order referred to in subsection 7(1)(b), rank hours with equivalent supply cushion in ascending order from the most recent to the most distant in time;

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

(e) select the first 250 hours after ranking and removing hours in accordance with subsections 7(1)(b) through 7(1)(d).

(2) The **ISO** must, for a **base auction** or **rebalancing auction**, determine the limits on the British Columbia transfer path, Montana transfer path, Saskatchewan transfer path, and the combined British Columbia and Montana transfer paths by averaging the following hourly limits for each of the 250 tightest supply cushion hours selected in subsection 7(1) prior to the **base auction** or **rebalancing auction**, as applicable:

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

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

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

Uplift Payment

8 The **ISO** must, in respect of additional volumes that cleared in accordance with subsection 4(1)(c), and were awarded a **capacity commitment** in accordance with subsection 4(2) provide to the **capacity market participant** an uplift payment for the difference between the **offer** price of the additional volume and the clearing price established in subsection 3(1), if the **offer** price of the additional volume is higher than the clearing price.

Revision History

Date	Description
yyyy-mm-dd	Initial release