

ISO Rules

Part 200 Markets

Division 202 Non-Routine Conditions in the Markets

Section 202.6 Adequacy of Supply



Draft Version
Posted January 2019

Applicability

- 1 Section 202.6 applies to:
- (a) the **ISO**.

Requirements

Adequacy Assessments

2 The **ISO** must, in order to assist in determining whether to cancel a **planned outage** or **unplanned outage** of generation or **delist outage** under section 306.9 of the **ISO rules**, *Outage Cancellation*, assess the **adequacy** of supply by, at a minimum, completing a supply and load forecast using the peak demand hour of every **day** for a two (2) year period, calculated as the sum of the following:

- (a) the **maximum capability** from all **generating units** in Alberta that are associated with **offers** in the Alberta energy market;
plus
- (b) the **maximum capability** from all load **sink assets** that are associated with **offers** in the Alberta energy market;
plus
- (c) an estimate of the output from **aggregated generating facilities**;
plus
- (d) import **available transfer capability** on **interconnections** with a program that increases **available transfer capability**;
minus
- (e) declared **maximum capability** derates from a **generating unit** or load **sink asset**;
minus
- (f) any capacity of **generating units** which are affected by **transmission market constraints**;
minus
- (g) anticipated **maximum capability** derates from a **generating unit** or load **sink asset**;
minus
- (h) the daily forecast **Alberta internal load**;
minus
- (i) **operating reserves** requirements;
plus
- (j) price responsive load, excluding the **maximum capability** of a load **sink asset** referred to in subsection 2(b);

ISO Rules

Part 200 Markets

Division 202 Non-Routine Conditions in the Markets

Section 202.6 Adequacy of Supply



- plus
- (k) aggregate **planned outage**, **unplanned outage** and **forced outage** records for load submitted in accordance with Section 306.3 of the **ISO rules**, *Load Planned Outage Reporting*;
- plus
- (l) load for **demand opportunity service**.

Short Term Adequacy Assessments

3 The **ISO** must, every hour, assess the short term **adequacy** of supply by, at a minimum, completing a real time **adequacy** assessment for each **settlement interval** of the current **day** and for the 6 remaining **days** of the **forecast scheduling period** on the **day** preceding that current **day**, calculated as the sum of the following:

- (a) **available capability** that is associated with **offers** in the Alberta energy market, from all load **sink assets** and **generating units** with a start-up time less than or equal to 1 hour or with a submitted start time at or before the period being assessed;
- plus
- (b) estimated output from **aggregated generating facilities**;
- plus
- (c) estimated amount of price responsive load, excluding the **available capability** of a load **sink asset** referred to in subsection 3(a);
- plus
- (d) estimated amount of **demand opportunity service** load that is to be curtailed;
- plus
- (e) on-site generation that supplies behind-the-fence load and submits **available capability** as a net-to-grid value;
- plus
- (f) import **available transfer capability** on the **interties**;
- minus
- (g) the peak forecast load from the day-ahead forecast of **Alberta internal load**;
- minus
- (h) the **ISO's spinning reserve** requirement;
- minus
- (i) constrained down generation, with the exception of constrained down **aggregated generation facilities**.

Resource Adequacy Standard Assessment

4 The **ISO** must, if the **ISO** anticipates that the **resource adequacy standard** will not be achieved, undertake further studies to verify the likely cause, magnitude and timing of the potential **adequacy** issue.

ISO Rules

Part 200 Markets

Division 202 Non-Routine Conditions in the Markets

Section 202.6 Adequacy of Supply



Resource Adequacy Standard Threshold Actions

5(1) The ISO may, if the ISO anticipates that the **resource adequacy standard** will not be achieved and the ISO determines that the potential **adequacy** issue requires preventative action, procure any 1 or more of the following services:

- (a) load shed;
- (b) self-supply and back-up generation that would not otherwise be available to participate in the energy market; and
- (c) **emergency** portable generation;

being **resource adequacy standard** threshold actions.

(2) The ISO must, in the event that the ISO takes preventative action in accordance with subsection 5(1), make the studies referred to in subsection 4 publicly available on the AESO website.

Procurement of Resource Adequacy Standard Threshold Actions

6 The ISO must procure **resource adequacy standard** threshold actions using established ISO procurement procedures and, where possible and practical, in a manner that encourages competition.

Recovery of Resource Adequacy Standard Threshold Actions Costs

7(1) The ISO must, if it procures **resource adequacy standard** threshold actions, establish a methodology that results in the recovery of the costs of **resource adequacy standard** threshold actions.

(2) The ISO must institute a charge to load, primarily directed to the **pool participants** who consume energy during higher priced hours, which recovers the costs of **resource adequacy standard** threshold actions.

Revision History

Date	Description
xxxx-xx-xx	Revised to accommodate load that offers, accommodate delist outages, accommodate 1-5 MW generating units associated with offers, replaced “long term adequacy” with “resource adequacy standard”, removed long term adequacy reporting requirements, and addition of subsection 5(2).
2018-09-01	Revised references to “wind aggregated generating facilities” to “aggregated generating facilities”; replaced “wind” with “wind and solar generation”; administrative revisions.
2014-10-01	Amendment to the short term adequacy assessments calculation to include the ISO’s spinning reserve requirement.
2013-12-20	Initial release