

# ISO Rules

## Part 200 Markets

### Division 202 Non-Routine Conditions in the Markets

#### Section 202.6 Adequacy of Supply



External Consultation Draft  
August 31, 2018

#### 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, delayed forced outage, automatic forced outage, 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 minimum 2 year period, calculated as the sum of the following:

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

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- (j) price responsive load, excluding the **maximum capability** of a load **sink asset** referred to in subsection 2(b);  
plus
- (k) aggregate **planned outage** records for load;  
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**, **generating units**, and **aggregated generating facilities**, excluding wind and solar **aggregated generating facilities** 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 wind or solar **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 wind or solar **aggregated generating facilities**.

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#### Resource Adequacy Standard Assessment

- 4** The **ISO** must, if the **ISO** determines that:
- (a) the normalized expected unserved energy in 1 year on average exceeds the **resource adequacy standard**; and
  - (b) the percentage of the total load on the **interconnected electric system** in a year in MWh that is not expected to be served indicates a need for the **ISO** to consider taking preventative action,

undertake further studies to verify the likely cause, magnitude and timing of the potential **adequacy** issue.

#### Resource Adequacy Standard Threshold Actions

- 5** The **ISO** may, if the **resource adequacy standard** threshold is exceeded and the **ISO** deems that a 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.

#### 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, replaced “long term adequacy” with “resource adequacy standard”, removed long term adequacy reporting requirements.
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 <b>ISO’s spinning reserve</b> requirement.
2013-12-20	Initial release