

# Information Document

## Acceptable Operational Reasons

### ID #2009-003R



Information documents are not authoritative. Information documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an information document and any authoritative document<sup>1</sup> in effect, the authoritative document governs.

## 1 Purpose

This Information document relates to the following authoritative documents:

- Section 203.1 of the ISO rules, *Offers and Bids for Energy* ("Section 203.1");
- Section 203.3 of the ISO rules, *Energy Restatements* ("Section 203.3");
- Section 203.4 of the ISO rules, *Delivery Requirements for Energy* ("Section 203.4"); and
- Section 203.6 of the ISO rules, *Available Transfer Capability and Transfer Path Management*.

The purpose of this information document is to provide information with respect to the AESO's interpretation of the acceptable operational reason definition, and the practical application of the acceptable operational reason definition as it relates to the ISO rules.

## 2 Clarification of Acceptable Operational Reason

The acceptable operational reason definition outlines six scenarios that are considered "acceptable operational reasons". The 5 situations examined below, are intended to assist pool participants in determining when an acceptable operational reason exists.

Market participants are encouraged to refer to the full text of the acceptable operational reason definition found in the AESO's *Consolidated Authoritative Document Glossary*.

### a) Restatements for Operating Reserves Dispatches

Subsection (ii) of the acceptable operational reason definition states:

"(ii) re-positioning a **source asset** within the energy market due to the need to meet a **dispatch** given to that **source asset** from the **ISO** to serve the stand-by **operating reserves** market;"

The purpose of this subsection is to allow source assets to comply with dispatches to provide operating reserves that were offered in the stand-by operating reserve market without becoming non-compliant in the energy market. While the AESO acquires stand-by operating reserves no later than noon the day before they are required, the actual issuance of dispatches for stand-by operating reserves is not predictable.

The AESO issues dispatches for standby operating reserves when active operating reserve amounts are inadequate, which is often caused by an unexpected generating unit trip. The unpredictable nature of the issuance of dispatches for stand-by operating reserves may find the asset at an output level where it is unable to provide the product. Subsection (ii) of the acceptable operational reason definition contemplates this situation and, therefore, allows the pool participant to restate the asset's offer so that the pool participant can reposition the asset to provide stand-by operating reserves.

### b) Restatements for Asset Constraints

Subsection (iii) of the acceptable operational reason definition states:

"(iii) re-positioning a **source asset** within the energy market to manage physical or operational constraints associated with the **source asset**;"

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

The purpose of this subsection is to allow the pool participant to restate the source asset's energy when there is a physical or operational constraint with the source asset. It is expected that these constraints are unanticipated or could not have been avoided by the exercise of reasonable diligence.

For example, a pool participant that has insufficient fuel after exercising reasonable diligence to secure fuel may have an acceptable operational reason. When a thermal source asset does not have sufficient fuel supply to physically operate at its declared available capability in any settlement interval, the definition of acceptable operational reason is met and the source asset is restated to reflect its operating capability given the fuel constraint. In general, a restatement for the rationing of fuel or the prioritization of fuel for use in one settlement interval over another does not meet the definition of acceptable operational reason.

In addition to aligning with the definition of available capability in the AESO's *Consolidated Authoritative Document Glossary*, this ensures system controllers and the market have visibility of all available MW in any given settlement interval. Where an asset is subject to a gas constraint which may impact its ability to generate or force it offline, the AESO recommends that the market participant contact the system controller through a telephone call as soon as practicable to inform them of the situation.

**Generating Unit Gas Constraint Example:**

- (a) A pool participant receives notification from its gas provider that the gas supply for its generating unit will be constrained to 70% for the remainder of the delivery day.
- (b) The related source asset had a declared available capability of 100 MW for the remainder of the delivery day. With the gas constraint, it remains physically able to operate at 100 MW, but the overall MWh capability for the delivery day is limited.
- (c) At this time, the pool participant does not have an acceptable operational reason to restate the pool asset due to the gas constraint; the source asset remains capable of providing the declared available capability of 100 MW in any one settlement interval.
- (d) If the gas supply becomes limited or unavailable such that the source asset is unable to operate at 100 MW in any one settlement interval, there has been a change in the available capability of the source asset and the definition of acceptable operational reason is met.

Subsection (iii) is not intended to allow the pool participant to re-position offers to allow the source asset to provide ancillary services from the active market. It is expected that since active ancillary services are acquired the day before they are required and the provider is aware of the time of day their product will be required, that the pool participant's energy offers can be submitted at least 2 hours in advance of the delivery hour to allow the source asset to be properly positioned to respond to the ancillary service dispatch.

Unlike subsection (ii), which accommodates stand-by operating reserves, neither subsection (iii) nor any other part of the acceptable operational reason definition recognizes a source asset being dispatched for active ancillary services as an acceptable operational reason. This approach is aligned with providing a more stable merit order within 2 hours of the delivery hour and within the delivery hour.

**c) Asset Minimum On/Off Time**

Certain generating units require minimum on and off cycle times to prevent excessive and premature wear of their equipment. In order to remain compliant with Section 203.1, the pool participant is advised to use subsection (i) c) of the acceptable operational reason definition to address this dynamic. An example of this situation is a generating unit that has to be on for a minimum of 30 minutes and, when shut down, must be off for a minimum of 30 minutes.

The following protocol can be used to manage this situation:

Whenever the generating unit is dispatched on, sufficient MW should be moved from a non-zero price block down to the zero dollar price block through a MW restatement to ensure the generating unit remains dispatched on for the minimum 30 minutes. After the 30 minutes have expired the offer should be restated back to its original structure using a second MW restatement. Similarly, whenever the generating unit is dispatched off, the available capability should be restated to zero MW for the required 30 minute off time. After the 30 minutes have expired, the available capability would be restated back to the available capability of the generating unit.

**d) Generating Units Capable of Dual or Secondary Fuel Operation**

Certain pool participants have the ability to operate their generating units using multiple fuel types on either a temporary or long term basis. These pool participants may:

- (i) regularly switch between different fuel types based on the relative cost or availability of the fuel source, or predominantly use one fuel type but rely on another to backstop fuel requirements as needed; or
- (ii) utilize a secondary fuel source only to manage short term operational requirements.

Of particular concern is the question of the extent to which switching from a primary to a secondary fuel source is to be reflected in the offers made to the power pool and the related use of an acceptable operational reason, if applicable.

It is anticipated that generally 2 types of dual or secondary fuel scenarios exist:

Type 1 - The generating unit can only operate on a limited basis in back-up fuel mode:

On a case by case basis, the AESO does not consider the consistent utilization of back-up fuel for purposes such as start-up and flame stabilization, where such situations reflect short-term operational requirements, to be a dual or secondary fuel generating unit. Therefore an acceptable operational reason is not applicable to those situations.

Type 2 - The generating unit can reliably operate utilizing more than one fuel type:

The AESO considers a generating unit to be a dual or secondary fuel unit if it has *historically exhibited* the operational and commercial ability to utilize more than 1 fuel type to operate for either a prolonged period or to backstop primary fuel requirements. The AESO expects that the pool participant will reflect such capability in the available capability of the generating unit. In such a situation, the use of an acceptable operational reason as a result of fuel switching would not be appropriate. Even though a generating unit may be able to effectively operate using a secondary fuel source for a prolonged period of time, such use is not indefinite. The AESO expects that the specific operational characteristics of the generating unit will drive how long the available capability will reflect the 2 fuel types. In the case of a generating unit fitting the description in (ii) above, the AESO's view is that secondary fuel capability is properly reflected in the declaration of available capability and all such changes to available capability need to consider the extent of possible operation of the generating unit with a secondary fuel. In this example, the pool participant also has the obligation to promptly begin supplementing its primary fuel with secondary fuel to maintain output within the allowable dispatch variance of the dispatched level in accordance with Section 203.4.

**e) Generation Unit Peak Firing Capability**

In general the AESO does not consider MW restatements for assets with peak firing capability relating to operational conditions that can be foreseen outside of T-2 to be an acceptable operational reason.

However, a pool participant whose asset is an industrial system, designated as such by the Alberta Utilities Commission, with on-site operations may submit an available capability restatement in accordance with subsection 2(1)(a) of Section 203.3 and subsection (vi) of the acceptable operational

reason definition, where there is a change in the industrial process requirements of the on-site operations. Where the industrial system has the ability to generate electric energy through peak firing, the change in the industrial process requirements of on-site operations, and the submission of the corresponding available capability restatement, may result in the peak firing generation of the industrial system being dispatched on at a price that is lower than the offer price of the peak firing generation reflected in the offer(s) made at T-2 hours. In such circumstances, the inability of the pool participant to accurately predict the industrial process requirements of on-site operations results in an operational constraint, as the pool participant is unable to plan for when the peak firing generation will be dispatched. Subsection 4(2)(a)(i) of Section 203.3 and subsection (iii) of the acceptable operational reason definition are applicable where the offer(s) for the peak firing generation are re-positioned to reflect the offer(s) made at T-2 hours. Where an available capability and MW restatement are submitted to address this situation, the AESO expects that the MW restatement will correspond, in both frequency and volume, with the available capability restatement.

**f) Restatements for source asset containing Wind and Solar Facilities**

Pursuant to subsection 2 of Section 203.3 of the ISO rules, the AESO expects that wind and solar aggregated facilities that encounter a change to the available capability of the asset would submit an available capability restatement for the applicable hours, as soon as reasonably practicable.

For further clarity, situations that would warrant a change to the available capability may include, but are not limited to, the following:

- (i) A wind facility experiencing excessive winds where blades are feathered to protect the safety of the turbine.
- (ii) A solar facility experiencing excessive winds where panels are stowed to protect the safety of the panels.
- (iii) A wind or solar facility experiencing temperatures outside of normal operational range which impact the facilities ability to generate to full capability.
- (iv) A solar facility experiencing obstructions such as snow on panels limiting the asset's ability to generate to full capability.
- (v) A wind facility experiencing icing on turbine blades limiting the asset's ability to generate to full capability.

### 3 Energy Storage

For a source asset that is (or includes) an energy storage resource, an available capability restatement to represent the state of charge<sup>2</sup> is not considered an acceptable operational reason to restate down unless the state of charge is at relative 0% (for example, a battery is fully discharged). Like all other pool assets, the AESO expects that the pool participant will manage its operation through offers submitted 2 hours before the start of a settlement interval.

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<sup>2</sup> State of charge is described in Information Document 2020-013, *Energy Storage Guidance Document*.

# Information Document

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#### Revision History

Posting Date	Description of Changes
2024-04-05	Administrative amendments to align with Energy Storage ISO rule amendments.
2020-06-19	Amendment to subsection 3 Administrative amendments
2019-08-12	Further clarification of subsection (iii) of the acceptable operational reason definition and addition of an example
2017-10-20	Clarification of subsection (iii) of the acceptable operational reason definition
2017-06-27	Clarification of peak firing capability in subsection 2(e)
2017-05-11	Addition of section 3
2016-05-11	Clarification of subsection (iii) and (vi) of the acceptable operational reason definition and the treatment of assets with peak firing capability Administrative updates
2013-11-12	Administrative updates
2012-04-03	Inclusion of practical applications of the defined term
2009-09-30	Inclusion of additional applications