

## **EOP-002-AB-2 Capacity and Energy Emergencies**

### **1. Purpose**

The purpose of this *reliability standard* is to ensure the ISO is prepared for a supply shortfall event.

### **2. Applicability**

This *reliability standard* applies to:

- ISO

### **3. Definitions**

Italicized terms used in this *reliability standard* have the meanings as set out in the Alberta [Reliability Standards Glossary of Terms](#) and Part 1 of the [ISO Rules](#).

### **4. Requirements**

- R1** The ISO must exercise its authority to alleviate a supply shortfall event in the AIES.
- R2** The ISO must implement its capacity and energy emergency plan by following ISO rules.
- R3** The ISO must communicate its current and its forecast of future system conditions to the VRC and *adjacent balancing authorities* during a supply shortfall event.
- R4** The ISO must follow plans in ISO rules when it anticipates a supply shortfall event may occur. The ISO plans must include any one of or combination of the following:
- Issuing directives as necessary, including bringing on all available generation;
  - Postponing equipment maintenance;
  - Posting interconnection TTC to maximum *reliability* based capacity and being prepared to reduce firm *load*.
- R5** The ISO must, during a supply shortfall event:
- Only use the assistance provided by the *Interconnection's frequency bias* for the time needed to manage the event.
  - Not direct generating units in an attempt to return the *Interconnection* frequency to normal beyond that supplied through *frequency bias* action and *interchange schedule* changes.
- R6** The ISO must comply with the control performance and disturbance control standards during a supply shortfall event. If necessary to do so, the ISO must implement remedies including without limitation, any one of or combination of the following:
- Loading all available generating capacity.
  - Deploying all available operating reserves.

- Interrupting interruptible *load* and exports.
  - Requesting emergency assistance from other *balancing authorities*.
  - Requesting, in accordance with *ISO* rules, the *VRC* to declare an Energy Emergency Alert(s); and
  - Reducing *load*, through procedures such as public appeals, voltage reductions, and curtailing interruptible *loads*.
- R7** The *ISO* must comply with the control performance and disturbance control *reliability* standards during a supply shortfall event. The *ISO* must perform the following if all the remedies listed in requirement R6 have been implemented and the control performance and disturbance control standards are not being met:
- R7.1** Issue directives for the manual shedding of firm *load* without delay to return its *ACE* to zero; and
- R7.2** Request, in accordance with the *ISO* rules, the *VRC* to declare an Energy Emergency Alert.
- R8** The *ISO* must notify the *VRC* and each *adjacent balancing authority* in the *WECC* that a supply shortfall event exists before revising *system operating limits*.
- R9** The *ISO* must complete an “Energy Emergency Alert 3 Report” (refer to template in Appendix 1) and submit it to the *VRC* for review within two business *days* of downgrading or termination of an Energy Emergency Alert 3.

## 5. Processes and Procedures

No procedures have been defined for this *reliability standard*.

## 6. Measures

The following measures correspond to the requirements identified in Section 4 of this *reliability standard*. For example, MR1 is the measure for R1.

**MR1** The following must exist:

- An authorization letter signed by an officer of the *ISO* stating that the persons in the position of *system controller* have the authority to carry out actions and exercise the authority in the requirement.
- Job descriptions for *system controllers* identify the responsibilities of the *system controller* to operate to *ISO* rules and *reliability standards*.

**MR2** Procedures to manage a supply shortfall event exist in *ISO rules*.

Disturbance reports, operator logs, voice recordings and/or other data exist that demonstrate the *ISO* managed a supply shortfall event in accordance with its procedures.

**MR3** *ISO* rules must include the required communications as identified in R3. Operator logs, voice recordings, electronic communications and/or other data exist to show that communications occurred in accordance with *ISO* rules.

**MR4** *ISO* rules must include the planning as identified in R3. Operator logs, voice recordings, electronic communications exist to show that procedures in planning for such an event were met.

- MR5** Operator logs, voice recordings, electronic communications and/or other data exist to show that the requirement was met.
- MR6** ISO rules include the remedies identified in the requirement. Operator logs, voice recordings, electronic communications and/or other data exist to show that the requirement was met.
- MR7** Operator logs, voice recordings, electronic communications exist to show that requirement was met.
- MR8** Operator logs, voice recordings, electronic communications, electronic data or other equivalent evidence exists to show that the ISO notified the VRC and each *adjacent balancing authority* that a supply shortfall event exists.
- MR9** An “Energy Emergency Alert 3 Report” exists for each event where an Energy Emergency Alert 3 was declared.

## 7. Appendices

**Appendix 1 - Energy Emergency Alert 3 Report** (see below)

## 8. Guidelines

No guidelines have been defined for this *reliability standard*.

## Revision History

Effective	Description
2009-10-03	New Issue

**Appendix 1 - Energy Emergency Alert 3 Report**

A deficient balancing authority or load serving entity declaring an Energy Emergency Alert 3 must complete the following report. Upon completion of this report, it is to be sent to the reliability coordinator for review within two business days of the incident.

**Requesting balancing authority:**

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**Entity experiencing energy deficiency (if different from balancing authority):**

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**Date/Time Implemented:**

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**Date/Time Released:**

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**Declared Deficiency Amount (MW):**

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**Total energy supplied by other balancing authority during the Alert 3 period:**

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**Conditions that precipitated call for "Energy Deficiency Alert 3":**

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**If "Energy Deficiency Alert 3" had not been called, would firm load be cut? If no, explain:**

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**Explain what action was taken in each step to avoid calling for "Energy Deficiency Alert 3":**

**1. All generation capable of being on line in the time frame of the energy deficiency was on line (including quick start and peaking units) without regard to cost.**

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**2. All firm and nonfirm purchases were made regardless of cost.**

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**3. All nonfirm sales were recalled within provisions of the sale agreement.**

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**4. Interruptible load was curtailed where either advance notice restrictions were met or the interruptible load was considered part of spinning reserve.**

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**5. Available load reduction programs were exercised (public appeals, voltage reductions, etc.).**

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**6. Operating Reserves being utilized.**

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**Comments:**

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**Reported By:** \_\_\_\_\_

**Organization:** \_\_\_\_\_

**Title:** \_\_\_\_\_