

## 1. Purpose

The purpose of this **reliability standard** is to ensure the **ISO** has the **contingency reserve** to meet the requirements of the **western interconnection**.

## 2. Applicability

This **reliability standard** applies to:

- the **ISO** which may meet the requirements of BAL-STD-002-AB-0 through participation in a **reserve sharing group** which the **ISO** has designated as its agent.

## 3. Requirements

**R1** The **ISO** must calculate and have access to, at a minimum, **contingency reserve** the greater of:

- an amount equal to the loss of the most severe single **contingency**; or
- an amount equal to the sum of 5% of the **load** responsibility served by hydro **generating units** and 7% of the **load** responsibility served by thermal **generating units** based upon data integrated over each clock hour;

except within the first sixty (60) minutes following a **disturbance** resulting from a loss of supply and requiring the activation of **contingency reserves** or except following the deployment of **contingency reserves** during implementation of the **ISO's** capacity and energy emergency plan.

**R2** The **ISO** must maintain at least 50% of the **contingency reserve** required in requirement R1 as **spinning reserve**.

**R2.1** The **ISO** must have access to **spinning reserve** which is capable of fully responding within ten (10) minutes.

**R3** The **ISO** must have access to **contingency reserve** which is capable of fully responding in ten (10) minutes and includes one or more of the following:

- spinning reserve;
- interruptible demand;
- any interchange transaction designated by the source balancing authority as contingency reserve;
- contingency reserve that is sourced external to Alberta and that, by agreement, is deliverable to Alberta on firm transmission service;
- any off-line generating unit which can be synchronized and generating; or
- during capacity and energy emergencies, load that can be interrupted..

- R4** The **ISO** must continuously calculate the amount of **contingency reserve** available which can be fully activated in the next ten (10) minutes and provide this amount to its real-time operating personnel.

#### 4 Measures

The following measures correspond to the requirements identified in Section 3 of this **reliability standard**. For example, MR1 is the measure for R1.

- MR1** Evidence of calculating and having access to **contingency reserves** as required in requirement R1 exists. Evidence may include documentation of the methodology of the **contingency reserves** calculation, **ancillary services** contracts or a **reserve sharing group** agreement including a reserve sharing group agent appointment agreement.
- MR2** Evidence of maintaining 50% of the **contingency reserves** as **spinning reserves** as required in requirement R2 exists. Evidence may include records of **dispatches** of **ancillary services** or a **reserve sharing group** agreement including a reserve sharing group agent appointment agreement.
- MR2.1** Evidence of ensuring **spinning reserves** are capable of responding as required in requirement R2.1 exists. Evidence may include **ISO** technical requirements or **ancillary services** contracts or a **reserve sharing group** agreement including a reserve sharing group agent appointment agreement.
- MR3** Evidence of ensuring **contingency reserves** are capable of responding and includes one or more of the **contingency reserves** as required in requirement R3 exists. Evidence may include technical requirements of **contingency reserves**, records of **ancillary services dispatches** or **directives**, and SCADA data confirming the response of **contingency reserve** or a **reserve sharing group** agreement including a reserve sharing group agent appointment agreement.
- MR4** Evidence of calculating the **contingency reserve** and providing it to personnel as required in requirement R4 exists. Evidence may include real-time display of the **contingency reserve** or SCADA data confirming the continuous calculation or a **reserve sharing group** agreement including a reserve sharing group agent appointment agreement.

#### 5. Appendices

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

#### Revision History

Effective	Description
2012-10-01	Initial Release