

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:

- (a) an amount equal to the loss of the most severe single **contingency**; or
- (b) 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:

- (a) spinning reserve;
- (b) interruptible demand;
- (c) any interchange transaction designated by the source balancing authority as contingency reserve;
- (d) contingency reserve that is sourced external to Alberta and that, by agreement, is deliverable to Alberta on firm transmission service;
- (e) any off-line generating unit which can be synchronized and generating; or
- (f) 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