

# Alberta Reliability Standard

## Operational Reliability Information

### TOP-005-AB3-1



## 1. Purpose

The purpose of this **reliability standard** is to require the **ISO** to provide operating data to entities responsible for reliable power system operation so that those entities have the operating data needed to monitor system conditions within their areas.

## 2. Applicability

This **reliability standard** applies to:

- (a) the **ISO**.

## 3. Requirements

**R1** Intentionally left blank.

**R2** Upon request, the **ISO** must provide to other **balancing authorities** and **transmission operators** external to Alberta with immediate responsibility for operational **reliability**, the operating data that is necessary to allow these **balancing authorities** and **transmission operators** external to Alberta to perform operational **reliability** assessments and to coordinate reliable operations. The **ISO** must provide the types of operating data as listed in Appendix 1 of this **reliability standard**, unless otherwise agreed to by these **balancing authorities** and **transmission operators**.

**R3** Upon request, the **ISO** must provide to each **operator** of a **transmission facility** with immediate responsibility for operational **reliability**, the operating data that is necessary to allow such **operator** of a **transmission facility** to perform operational **reliability** assessments and to coordinate reliable operations. The **ISO** must provide the types of operating data as listed in Appendix 1 of this **reliability standard**, unless otherwise agreed to by the **operator** of a **transmission facility** and with immediate responsibility for operational **reliability**.

## 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** Intentionally left blank.

**MR2** A confirmation letter from the **ISO** confirming that the **ISO** has provided the data as requested by the **balancing authorities** or **transmission operators**. The letter is dated and signed by an authorized representative of the **balancing authorities** and **transmission operators** external to Alberta.

# Alberta Reliability Standard

## Operational Reliability Information

### TOP-005-AB3-1



**MR3** A confirmation letter from the **ISO** confirming that the **ISO** has provided the data as requested by the **operator** of a **transmission facility**. The letter is dated and signed by an authorized representative of the **operator** of a **transmission facility**.

## 5. Appendices

*Appendix 1 - TOP-005-AB3-1 Electric System Reliability Data*

### Revision History

Date	Description
2015-10-01	Revised for ISO assumption of RC functionality for the Alberta footprint.
2013-04-01	Remove requirements R2 and R5 applicable to non- <b>ISO</b> Alberta entities.
2013-01-02	Administrative update – “ <i>TFO</i> ” replaced with “ <b>operator</b> of a <b>transmission facility</b> ”; clarified “ <i>pool participant</i> ”; specified “ <b>operator</b> of a <i>generating unit</i> ”; and specified “ <b>operator</b> of an <i>aggregated generating facility</i> ”.
2009-05-26	New Issue

# Alberta Reliability Standard

## Operational Reliability Information

### TOP-005-AB3-1



#### Appendix 1 - TOP-005-AB3-1 Electric System Reliability Data

Appendix 1 lists the types of data that the **ISO** is expected to provide to:

- (i) other **balancing authorities** and **transmission operators** external to Alberta; and
- (ii) each **operator** of a **transmission facility**;

with immediate responsibility for operational **reliability**.

1. The following operating data must be updated at least every ten (10) minutes.

1.1 Transmission data. Transmission data for all **interconnections** plus all other facilities considered key, from a **reliability** standpoint:

- 1.1.1 Status
- 1.1.2 MW or ampere loadings
- 1.1.3 MVA capability
- 1.1.4 Transformer tap and phase angle settings
- 1.1.5 Key voltages

1.2 Generator data:

- 1.2.1 Status
- 1.2.2 MW and MVA<sub>r</sub> capability
- 1.2.3 MW and MVA<sub>r</sub> net output
- 1.2.4 Status of automatic voltage control facilities

1.3. Operating reserves:

- 1.3.1 MW reserve available within ten minutes

1.4. **Balancing authority** demand:

- 1.4.1 Instantaneous

1.5. **Interchange**:

- 1.5.1 Instantaneous actual **interchange** with each **balancing authority**
- 1.5.2 Current **interchange schedules** with each **balancing authority** by individual **interchange transaction**, including **interchange** identifiers, and reserve responsibilities
- 1.5.3 **Interchange schedules** for the next twenty-four (24) hours

# Alberta Reliability Standard

## Operational Reliability Information

### TOP-005-AB3-1



- 1.6. **Area control error** and frequency:
  - 1.6.1 Instantaneous **area control error**
  - 1.6.2 Clock hour **area control error**
  - 1.6.3 System frequency at one (1) or more locations in the **balancing authority**
- 2. The following information must be updated as soon as the information becomes available.
  - 2.1. **Interconnection reliability operating limits** and **system operating limits** in effect
  - 2.2. Forecast of operating reserves at peak, and time of peak for current **day** and next **day**
  - 2.3. Forecast **peak demand** for current **day** and next **day**
  - 2.4. Forecast changes in equipment status
  - 2.5. New facilities in place
  - 2.6. New or degraded **remedial action schemes**
  - 2.7. Emergency operating procedures in effect
  - 2.8. Severe weather, fire, or earthquake
  - 2.9. Multi-site sabotage