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## **TOP-005-AB-1 Operational Reliability Information**

### **1. Purpose**

The purpose of this *reliability standard* is to ensure entities responsible for reliable power system operation have the operating data needed to monitor system conditions within their areas.

### **2. Applicability**

This *reliability standard* applies to the entities listed below:

Independent System Operator  
*pool participants*  
*transmission facility owners*

### **3. Effective Date**

This *reliability standard* becomes effective 120 days after the date approved by the Commission.

### **4. Definitions**

Italicized terms used in this *reliability standard* have the meanings as set out in Part 1 of the ISO Rules, including, but not limited to, the following terms:

*area control error or ACE<sup>1</sup>*  
*Balancing Authority*  
*Commission*  
*compliance monitor*  
*interchange schedule*  
*interchange transaction*  
*interconnection*  
*Interconnection Reliability Operating Limit or IROL*  
*Independent System Operator or ISO*  
*North American Electric Reliability Corporation or NERC*  
*pool participants*  
*operating reserve*  
*peak demand*  
*reliability standard*  
*remedial action scheme*  
*System Operating Limits*  
*Transmission Operator*  
*transmission facility owners or TFOs*

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<sup>1</sup> Where a defined term is followed by an acronym, the acronym may be used as an alternative to the defined term.  
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### 5. Requirements

- R1 The *ISO* must provide the Vancouver Reliability Coordinator with the operating data that the Vancouver Reliability Coordinator reasonably requires to perform operational reliability assessments and to coordinate reliable operations within the Vancouver Reliability Coordinator area.
- R2 Upon request, each *TFO* must provide to the *ISO*, the operating data that are necessary to allow *ISO* to perform operational reliability assessments and to coordinate reliable operations. *TFOs* must provide the types of data as listed in Appendix 1-TOP-005-AB-0 "Electric System Reliability Data," unless otherwise agreed to by the *ISO*.
- R3 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 are 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 data as listed in Attachment 1-TOP-005-AB-0 "Electric System Reliability Data," unless otherwise agreed to by these *Balancing Authorities* and *Transmission Operators*.
- R4 Upon request, the *ISO* must provide to *TFOs* with immediate responsibility for operational reliability, the operating data that are necessary to allow *TFOs* to perform operational reliability assessments and to coordinate reliable operations. The *ISO* must provide the types of data as listed in Attachment 1-TOP-005-AB-0 "Electric System Reliability Data," unless otherwise agreed to by the *TFOs* and with immediate responsibility for operational reliability.
- R5 Upon request, each *pool participant* must provide to the *ISO* information that is necessary to enable the *ISO* to conduct operational reliability assessments and coordinate reliable operations.

### 6. Procedures

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

### 7. Measures

The following Measures correspond to the Requirements identified in Section 5 of this reliability standard. For example, MR1 is the Measure for R1.

MR1 The *ISO* must provide to the *compliance monitor*, within 30 days of a request, a confirmation letter dated and endorsed by an authorized representative of the Vancouver Reliability Coordinator confirming that the *ISO* has provided the data as requested by the Vancouver Reliability Coordinator. The letter will state whether the Vancouver Reliability Coordinator has received the data from the *ISO* in the time interval specified and the format agreed upon.

MR2 The *TFO* must provide to the *compliance monitor*, within 30 days of a

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request, a confirmation letter dated and endorsed by an authorized representative of the *ISO* confirming that the *TFO* has provided the data requested by the *ISO*. The letter will state whether the *ISO* has received the data from the *TFO* in the time interval specified and the format agreed upon.

- MR3 The *ISO* must provide to the *compliance monitor*, within 30 days of a request, confirmation letters dated and endorsed by authorized representatives of the *Balancing Authorities* and *Transmission Operators* external to Alberta, confirming that the *ISO* has provided the data requested by the *BAs* and *TFOs*. Each letter will state whether the *Balancing Authorities* or *Transmission Operator* has received the data from the *ISO* in the time interval specified and the format agreed upon.
- MR4 The *ISO* must provide to the *compliance monitor*, within 30 days of a request, a confirmation letter dated and endorsed by an authorized representative of the *TFO* confirming that the *ISO* has provided the data requested. The letter will state whether the *TFO* has received the data from the *ISO* in the time interval specified and the format agreed upon.
- MR5 The *pool participant* must provide to the *compliance monitor*, within 30 days of a request, a confirmation letter dated and endorsed by an authorized representative of the *ISO* confirming that the pool participant has provided the data requested by the *ISO*. The letter will state whether the *ISO* has received the data from the pool participant in the time interval specified and the format agreed upon.

## 8. Appendices

### Appendix 1 - TOP-005-AB-0 “Electric System Reliability Data”

Appendix 1 lists the types of data that the *ISO*, *TFOs*, Vancouver Reliability Coordinator, *Balancing Authorities*, and *Transmission Operators* are expected to provide and share with each other.

1. The following data must be updated at least every ten 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 MVAR capability.
    - 1.2.3 MW and MVAR net output.
    - 1.2.4 Status of automatic voltage control facilities.
  - 1.3. *Operating reserve*.

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- 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 24 hours.
  - 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 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 reserve* 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.

### 9. Guidelines

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

### Revision History

Effective	Description
####-##-##	New Issue