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## **PRC-004-AB1-1 Analysis and Mitigation of Transmission and Generation Protection System Misoperation**

### **1. Purpose**

The purpose of this *reliability standard* is to ensure all transmission and generation *protection system misoperations* affecting the *reliability* of the *BES* are analyzed and mitigated.

### **2. Applicability**

This *reliability standard* applies to:

- (a) the *legal owner* of a *transmission facility*;
- (b) the *legal owner* of a *generating unit* that:
  - (i) is not part of an *aggregated generating facility*;
  - (ii) has a *maximum authorized real power* rating greater than four point five (4.5) MW;
  - (iii) is directly connected to the *transmission system* or to *transmission facilities* within the City of Medicine Hat; and
  - (iv) has *protection systems* that directly affect the *reliability* of the *bulk electric system* which such protection systems are those that measure voltage, current, or frequency from the *generating unit* to the *interconnected electric system*, but exclude the prime mover and associated control systems;
- (c) the *legal owner* of an *aggregated generating facility* that:
  - (i) is directly connected to the *transmission system* or to *transmission facilities* within the City of Medicine Hat;
  - (ii) has a *maximum authorized real power* rating greater than four point five (4.5) MW; and
  - (iii) has *protection systems* that directly affect the *reliability* of the *bulk electric system*. These protection systems are those that measure voltage, current, or frequency from the *aggregated generating facility* to the *interconnected electric system*; and
- (d) the *ISO*.

### **3. Definitions**

Italicized terms used in this *reliability standard* have the meanings as set out in the *Consolidated Authoritative Document Glossary*.

#### 4. Requirements

- R1** Each *legal owner of a transmission facility, legal owner of a generating unit and legal owner of an aggregated generating facility* must analyze its *protection system misoperations* and develop and implement a *corrective action plan* to avoid future *misoperations* of a similar nature.
- R2** Each *legal owner of a transmission facility, legal owner of a generating unit and legal owner of an aggregated generating facility* must provide to the *ISO* documentation of its *misoperations* analyses and *corrective action plans* upon request by the *ISO*.
- R3** The *ISO* must provide to *WECC* documentation of the *misoperations* analyses and *corrective action plans* upon request by *WECC*.

#### 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** Evidence exists and shows analysis was completed and *corrective action plans* were implemented as specified in requirement R1.
- MR2** Evidence that analysis reports and *corrective action plans* were submitted as specified in requirement R2 (e.g. email confirmation).
- MR3** Confirmation that documentation as specified in requirement R3 was received by *WECC* or evidence that requests for confirmation were made.

#### 7. Appendices

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

#### 8. Guidelines

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

#### Revision History

Effective	Description
2013-01-02	Administrative update – “ <i>TFO</i> ” and “ <i>GFO</i> ” replaced with “ <i>legal owner of a transmission facility</i> ”, “ <i>legal owner of a generating unit</i> ” and “ <i>legal owner of an aggregated generating facility</i> ”; and other minor clean up items.
2010-02-11	New Issue