

Information Document

Event Notification and Reporting

ID #2016-002R



Information Documents are not authoritative. Information Documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s)¹ in effect, the Authoritative Document(s) governs.

1 Purpose

This Information Document relates to the following Authoritative Documents:

- Section 304.7 of the ISO rules, *Event Reporting* (“Section 304.7”);
- Section 305.4 of the ISO rules, *System Security* (“Section 305.4”); and
- Alberta Reliability Standard PRC-004-WECC-AB1-1, *Protection System and Remedial Action Scheme Misoperation* (“PRC-004-WECC-AB1-1”).

The purpose of this Information Document is to provide guidance to market participants on providing notifications to the AESO and reporting events and misoperations on the Alberta interconnected electric system. This Information Document is likely of most interest to market participants that own or operate transmission systems, generating facilities and distribution systems, and to providers of ancillary services.

2 Notification, Reporting and Analysis of Events

Notifications to the AESO under Section 305.4 are made in real time, and are intended to ensure that the AESO is aware of circumstances that have adversely affected or may adversely affect the transmission system or transmission system control facilities.

An event report under Section 304.7 is provided after an event has occurred and is intended to assist the AESO in facilitating Alberta electric industry awareness of such events in order to allow potentially impacted parties to prepare for and possibly mitigate any associated reliability risk. Event reports also provide the AESO with the raw material to see emerging patterns of certain potential reliability threats.

An event analysis is provided to the AESO upon request in accordance with Operating Policy and Procedure, *System Event Monitoring and Disturbance Reporting*, after a market participant has had sufficient time to assess the event. The event analysis process is intended to promote self-critical review and analysis by a market participant, and also allows the AESO to identify and disseminate valuable information to owners, operators, and users of the power system to enable improved and more reliable operation.

3 System Security – Notifications

Section 305.4 requires a market participant to advise the AESO of any circumstances that could adversely affect system security or the ability of the Alberta interconnected electric system to deliver energy.

A notification to the AESO under subsection 3 of Section 305.4 is made by real time verbal communication to the AESO System Controller. These notifications are intended to communicate conditions that are unplanned or differ from the planned conditions for the Alberta interconnected electric system. Such notifications provide situational awareness to the AESO System Controller with respect to the real time condition of the Alberta interconnected electric system. Accordingly, market participants are encouraged to provide as much information as is available at the time a notification is submitted to the AESO, including but not limited to:

- (a) a description of the conditions, and
- (b) the anticipated duration of the conditions.

¹ “Authoritative Documents” is the general name given by the AESO to categories of documents made by the AESO under the authority of the *Electric Utilities Act* and regulations, and that contain binding legal requirements for either market participants or the AESO, or both. Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

The following are examples of situations in which a market participant may consider notifying the AESO System Controller of a circumstance under subsection 3 of Section 305.4:

- (a) any change or potential change in the status of transmission lines and substations that could affect the reliability of the Alberta interconnected electric system. This may include, but is not limited to, a change in the status of line and substation equipment, protection systems, outage duration, remedial action schemes, or communication capability;
- (b) events or circumstances relating to the market participant's facilities that could affect the reliability of the Alberta interconnected electric system. This may include, but is not limited to, adverse weather conditions, fires or bomb threats; and
- (c) forced outages on transmission lines or substation equipment that could affect the reliability of the Alberta interconnected electric system.

Events giving rise to a notification under Section 305.4 may also be the subject of an event report under Section 304.7.

Note that notifications of planned outages are submitted to the AESO under Section 306.4 of the ISO rules, *Transmission Planned Outage Reporting and Coordination* or Section 306.5 of the ISO rules, *Generation Outage Reporting and Coordination*.

4 Event Reporting

Section 304.7 requires a market participant to report events to the AESO, the North American Electric Reliability Corporation and other organizations as appropriate, that have impacted the operation of the transmission system or generating units.

A report is provided to the AESO under Section 304.7 after an event has occurred and is intended to assist the AESO in facilitating market participant awareness of such events. Such awareness allows market participants to prepare for and possibly mitigate any reliability risk associated with the event. It also provides the AESO with the raw material to identify emerging patterns that may result in potential reliability threats.

4.1 Momentary vs Sustained Forced Outage

A forced outage generally results from the removal of a system element or a facility from the electric system due to circumstances such as defective equipment, adverse weather, adverse environment, or a system condition. A forced outage may or may not cause an interruption of service to customers, depending on the transmission system configuration.

Subsection (a) of Appendices 1 and 4 of Section 304.7 refers to a "sustained outage". The following definitions published by the Canadian Electricity Association may provide guidance in determining whether a forced outage is sustained or transient (momentary):

"Sustained Forced Outage: A transmission line related forced outage the duration of which is one minute or more. It does, therefore, not include automatic reclosure events.

Transient Forced Outage: A transmission line forced outage the duration of which is less than one minute and is therefore, recorded as zero. It covers only automatic reclosure events."²

4.2 Protection System Failure

Examples of protection system failures that may impact the transmission system for the purposes of Appendix 1(f) include, but are not limited to, the failure of:

- (a) a protection system, excluding the related telecommunications, that protects a transmission facility greater than 200 kV, regardless of whether or not a functionally equivalent protection

² Canadian Electricity Association, *2012 Annual Report (2008-2012 data): Forced Outage Performance of Transmission Equipment; Equipment Reliability Information System*, at 4.

system remains in service;

- (b) a protection system, excluding the related telecommunications, that protects a transmission facility where a functionally equivalent protection system is not available;
- (c) a teleprotection communication channel, where there is an equivalent backup teleprotection communication channel, and where the failure lasts for more than twenty-four (24) consecutive hours; or
- (d) a teleprotection communication channel, where there is no equivalent backup teleprotection communication channel, and where the failure lasts for more than ten (10) consecutive minutes.

4.3 Event Reporting Form

Events under Section 304.7 are reported to the AESO using the [Event Reporting Form Template](#), located on the AESO website. A market participant provides information regarding the impact of the event on its own facilities in the *Event Reporting Form Template*.

The form may then be emailed to:

- (a) opsevents@aeso.ca for all events, except for those events described under (b) below; or
- (b) security@aeso.ca for:
 - (i) damage or destruction that results from actual or suspected intentional human action;
 - (ii) physical threats which have the potential to degrade normal operation of a control centre; or
 - (iii) a suspicious device or activity.

5 Misoperation Reporting

Reports to the AESO under requirement R3 of PRC-004-WECC-AB1-1 are provided following the misoperation of a protection system or remedial action scheme to confirm that the legal owner has analyzed and mitigated the misoperation of protection systems or remedial action schemes on transmission paths.

Such misoperations are reported to the AESO by email at: opsevents@aeso.ca.

Revision History

Posting Date	Description of Changes
2017-12-12	Clarifying revisions to section 4.2 and administrative revisions.
2016-08-30	Initial release