

# Information Document

## Disturbance Monitoring and Reporting Requirements

### ID #2018-022



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<sup>1</sup> in effect, the authoritative document governs.

#### 1 Purpose

This information document relates to the following authoritative documents:

- Alberta reliability standard PRC-002-AB-2, *Disturbance Monitoring and Reporting Requirements* (“PRC-002-AB-2”)
- Section 502.9 of the ISO rules, *Synchrophasor Measurement Unit Technical Requirements* (“Section 502.9”).

The purpose of this information document is to provide information regarding fault recording data and dynamic disturbance recorders. It will be of most interest to any legal owner of a transmission facility, legal owner of a generating unit, or legal owner of an aggregated generating facility that owns fault recording data.

#### 2 Supplemental Information For Fault Recording Data (Requirement R4 of PRC-002-AB-2)

The intent of requirement R4 is to capture the fault recording data of the connected system elements on the bulk electric system buses identified in requirement R1.1 for the duration specified in requirement R11.1. If setting triggers solely pursuant to requirements R4.3.1 and R4.3.2, i.e. neutral (residual) overcurrent and phase under voltage or overcurrent would result in undesired events being captured and pose the risk of overwriting the data required by requirement R4, the legal owner may add additional triggers with the associated thresholds in accordance with their own practices and standards.

#### 3 Supplemental Information For Dynamic Disturbance Recorders and Data Streaming Synchrophasor Measurement Units

The requirements identified for dynamic disturbance recording data in PRC-002-AB-2 can be satisfied with synchrophasor measurement unit data. The AESO considers synchrophasor measurement units to be a form of dynamic disturbance recording equipment, which generally meet the technical specifications outlined in PRC-002-AB-2 for dynamic disturbance recordings.

Due to the AESO’s growing reliability needs for integrating additional synchrophasor measurement unit data in real-time operation for on-line applications, the AESO anticipates amending PRC-002-AB-2. This amendment would require data streaming for identified system elements determined by the AESO which will be primarily based on reliability needs identified in each area.

In general, the technical requirements for data-streaming synchrophasor measurement units are set in subsections 5 and 6 of Section 502.9 of the ISO rules.

#### 4 Supplemental Information For Re-Evaluation of All Bulk Electric System Buses (Requirement R1.3 of PRC-002-AB-2)

In accordance with requirement R1.3, each legal owner of a transmission facility is required to re-evaluate all bulk electric system buses at least once every 5 calendar years. The AESO recognizes that there may be a scenario where there are new buses in a re-evaluated list that were not included in the original requirement R1.1 list. Similarly, there may also be a scenario where some identified buses that appear in the original list are not included in the re-evaluated list.

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<sup>1</sup> “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 associated regulations, and that contain binding legal requirements for either market participants or the AESO, or both. AESO Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

For clarity on the implementation plan in Appendix 2, for the new buses in the re-evaluated list, entities must be 100% compliant within 3 calendar years after the completion of the requirement R1.3 assessment or the notification by the legal owner of a transmission facility, whichever is applicable. For the buses which appear in the original list and are also present in the re-evaluated list, they are still subject to the timelines associated with the original assessment, which is 50% compliant within 4 calendar years and 100% compliant within 6 calendar years of the effective date.

For clarity on the implementation plan in Appendix 2, for buses that appear in the original list but are removed in the re-evaluated list, compliance depends on the timeline of the re-evaluation. If the re-evaluation is performed prior to 4 calendar years from the original assessment, the removed buses are no longer subject to PRC-002-AB-2 requirements. If the re-evaluation is performed after 4 calendar years, entities are still expected to demonstrate 50% compliance for all buses in the original list within 4 calendar years.

#### **5 Supplemental Information For Re-Evaluation of All System Elements (Requirement R5.4 of PRC-002-AB-2)**

In accordance with requirement R5.4, the AESO is required to re-evaluate all system elements at least once every 5 calendar years and notify legal owners in accordance with requirement R5.3. The AESO recognizes that there may be a scenario where there are new system elements in a re-evaluated list that were not included in the original requirements R5.1 and R5.2 list. Similarly, there may also be a scenario where some identified system elements that appear in the original list are not included in the re-evaluated list.

For clarity on the implementation plan in Appendix 2, for the new system elements in the re-evaluated list, entities must be 100% compliant within 3 calendar years after the notification by the AESO. For the system elements which appear in the original list and are also present in the re-evaluated list, they are still subject to the timelines associated with the original assessment, which is 50% compliant within 4 calendar years and 100% compliant within 6 calendar years of the effective date.

For clarity on the implementation plan in Appendix 2, for system elements that appear in the original list but are removed in the re-evaluated list, compliance depends on the timeline of the re-evaluation. If the re-evaluation is performed prior to 4 calendar years from the original assessment, the removed system elements are no longer subject to PRC-002-AB-2 requirements. If the re-evaluation is performed after 4 calendar years, entities are still expected to demonstrate 50% compliance for all system elements in the original list within 4 calendar years.

#### **Revision History**

| <b>Posting Date</b> | <b>Description of Changes</b>   |
|---------------------|---|
| 2020-04-07          | Added sections 4 and 5 to include information on the re-evaluated list per requirements R1.3 and R5.4 |
| 2019-12-09          | Updated to include information on-line data streaming.  |
| 2019-01-10          | Initial release   |