Information Document
Radial Circuit
ID #2016-006RS

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 502.1 of the ISO rules, *Wind Aggregated Generating Facilities Technical Requirements*;
- Section 502.2 of the ISO rules, *Bulk Transmission Technical Requirements*;
- Section 502.4 of the ISO rules, *Automated Dispatch and Messaging System and Voice Communication System Requirements*;
- Section 502.13 of the ISO rules, *Battery Energy Storage Facility Technical Requirements*;
- Alberta Reliability Standard CIP-002-AB-5.1, *Cyber Security – BES Cyber System Categorization*;
- Alberta Reliability Standard CIP-003-AB-5, *Cyber Security – Security Management Controls*;
- Alberta Reliability Standard CIP-004-AB-5.1, *Cyber Security – Personnel & Training*;
- Alberta Reliability Standard CIP-005-AB-5, *Cyber Security – Electronic Security Perimeter(s)*;
- Alberta Reliability Standard CIP-006-AB-5, *Cyber Security – Physical Security of BES Cyber Systems*;
- Alberta Reliability Standard CIP-007-AB-5, *Cyber Security – System Security Management*;
- Alberta Reliability Standard CIP-008-AB-5, *Cyber Security – Incident Reporting and Response Planning*;
- Alberta Reliability Standard CIP-009-AB-5, *Cyber Security – Recovery Plans for BES Cyber Systems*;
- Alberta Reliability Standard CIP-010-AB-1, *Cyber Security – Configuration Change Management and Vulnerability Assessments*;
- Alberta Reliability Standard CIP-011-AB-1, *Cyber Security – Information Protection*;
- Alberta Reliability Standard EOP-001-AB1-2.1b, *Emergency Operations Planning*;
- Alberta Reliability Standard EOP-003-AB1-1, *Load Shedding Plans*;
- Alberta Reliability Standard EOP-004-AB-2, *Event Reporting*;
- Alberta Reliability Standard FAC-010-AB1-2.1, *System Operating Limits Methodology for the Planning Horizon*;
- Alberta Reliability Standard FAC-011-AB-2, *System Operating Limits Methodology for the Operations Horizon*;
- Alberta Reliability Standard PRC-023-AB-2, *Transmission Relay Loadability*;
- Alberta Reliability Standard TPL-001-AB-0, *System Performance Under Normal Conditions*;
- Alberta Reliability Standard TPL-002-AB-0, *System Performance Following Loss of a Single BES Element*;

[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. AESO Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

- Alberta Reliability Standard TPL-003-AB-0, *System Performance Following Loss of Two or more BES Elements*;
- Alberta Reliability Standard TPL-004-AB-0, *System Performance Following Extreme BES Events*; and
- the ISO Tariff.

The purpose of this Information Document is to provide guidance regarding the term “radial circuit”.

2 Radial Circuit

The following terms are currently used in the AESO’s authoritative documents (“AESO ADs”) to refer to a “radial circuit”:

- radial bulk transmission line;
- radial connection;
- radial customers;
- radial line;
- radially operated circuits;
- radial transmission line;
- radial transmission system;
- transmission facility that radially connects;
- radial transmission lines;
- double-radial configurations; and
- radial transmission facilities.

The AESO expects to add the below definition of “radial circuit” to the AESO’s *Consolidated Authoritative Document Glossary* for use in the ISO rules, Alberta reliability standards and the ISO tariff in due course. The AESO ADs will be amended concurrently to use the term “radial circuit” in place of the terms listed above.

Until such time as the new definition of “radial circuit” and the related AESO AD amendments are published for stakeholder comment and filed with the Alberta Utilities Commission, the AESO is publishing this Information Document to provide the following guidance regarding the above listed terms.

The AESO considers the term “radial circuit” to include the above listed terms and to mean:

> An arrangement of contiguous system elements extending from a single system element on the networked transmission system in a linear or branching configuration to the facilities of one or more market participants, which is the only circuit for power to flow between the networked transmission system and the facilities of one or more market participants under normal operating conditions, including when the circuit is connected to another circuit through a switching device that is operated normally open.

Revision History

Posting Date	Description of Changes
2017-06-15	Initial release