

Alberta Reliability Standard

Establish and Communicate System

Operation Limits

FAC-014-AB-3

A. Introduction

1. Title: Establish and Communicate **System Operating Limits**
2. Number: FAC-014-AB-3
3. Purpose: To ensure that **system operating limits** used in the reliable operation of the **bulk electric system** are determined based on an established methodology or methodologies and that **planning assessment** performance criteria are coordinated with these methodologies.
4. Applicability:
 - 4.1. Functional Entities
 - 4.1.1. the **ISO**.
5. Effective Date: January 1, 2028

B. Requirements and Measures

- R1.** The **ISO** must establish **interconnection reliability operating limits** for its area in accordance with its **system operating limit** methodology. *[Alberta Risk Rating: High] [Time Horizon: Operations Planning]*
- M1.** Evidence may include dated electronic or hard copy documentation or other equivalent evidence that demonstrates the **ISO's** established **interconnection reliability operating limits** in accordance with its **system operating limit** methodology.
- R2.** The **ISO** must establish **system operating limits** for its area in accordance with its **system operating limit** methodology. *[Alberta Risk Rating: Medium] [Time Horizon: Operations Planning]*
- R3.** [Intentionally left blank.]
- M3.** [Intentionally left blank.]
- R4.** The **ISO** must establish **stability limits** when an identified instability impacts adjacent **reliability coordinator** areas or more than one **operator** of a **transmission facility** in its area in accordance with its **system operating limit** methodology. *[Alberta Risk Rating: High] [Time Horizon: Operations Planning]*
- M4.** Evidence may include dated electronic or hard copy documentation or other equivalent evidence that demonstrates the **ISO** established **stability limits** in accordance with Requirement R4.

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R5. The **ISO** must provide: *[Alberta Risk Rating: High] [Time Horizon: Operations Planning]*

- 5.1 [Intentionally left blank.]
- 5.2 [Intentionally left blank.]
 - 5.2.1 [Intentionally left blank.]
 - 5.2.2 [Intentionally left blank.]
 - 5.2.3 [Intentionally left blank.]
 - 5.2.4 [Intentionally left blank.]
 - 5.2.5 [Intentionally left blank.]
 - 5.2.6 [Intentionally left blank.]
- 5.3 [Intentionally left blank.]
- 5.4 [Intentionally left blank.]
- 5.5 [Intentionally left blank.]
- 5.6 Each impacted **legal owner** of a **generating unit**, **legal owner** of an **aggregated generating unit**, or **legal owner** of a **transmission facility**, within the **ISO's** area, with a list of their facilities that have been identified as critical to the derivation of an **interconnection reliability operating limit** and its associated critical **contingencies** at least once every twelve **months**.

M5. Evidence may include dated electronic or hard copy documentation, posting to a secure website, or other electronic means, or other equivalent evidence that demonstrates the **ISO** provided the information in accordance with Requirement R5.

R6. The **ISO** must implement a documented process to use **facility ratings**, steady-state **system voltage limits** and **stability** criteria in its **planning assessment** of **near-term transmission planning horizon** that are equally limiting or more limiting than the criteria for **facility ratings**, **system voltage limits** and **stability** described in its **system operating limit** methodology. *[Alberta Risk Rating: Medium] [Time Horizon: Long-term Planning]*

- 6.1 The **ISO** may use less limiting **facility ratings**, steady-state **system voltage limits** and **stability** criteria based on a technical rationale.

M6. Evidence may include dated electronic or hard copy documentation or other equivalent evidence demonstrating the **ISO** implemented its documented process in accordance with Requirement R6.

R7. The **ISO** must annually communicate the following information for **corrective action plans** developed to address any instability identified in its **planning assessment** of the **near-term transmission planning horizon** to each impacted **interconnected transmission operator** and **reliability coordinator**. *[Alberta Risk Rating: Medium] [Time Horizon: Long-term Planning]*

- 7.1 The **corrective action plan** developed to mitigate the identified instability, including any automatic control or operator-assisted actions (such as **remedial action schemes**, **under voltage load shedding**, or any **operating procedures**);

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- 7.2** The type of instability addressed by the **corrective action plan** (e.g. steady-state and/or transient voltage instability, angular instability including generating unit loss of synchronism and/or unacceptable damping);
- 7.3** The associated stability criteria violation requiring the **corrective action plan** (e.g. violation of transient voltage response criteria or damping rate criteria);
- 7.4** The planning event **contingency(ies)** associated with the identified instability requiring the **corrective action plan**;
- 7.5** The system conditions and facilities associated with the identified instability requiring the **corrective action plan**.

M7. Evidence may include dated electronic or hardcopy documentation, or other equivalent evidence demonstrating the **ISO** communicated the information in accordance with Requirement R7.

R8. The **ISO** must annually communicate to each impacted **legal owner** of a **generating unit**, **legal owner** of an **aggregated generating unit**, and **legal owner** of a **transmission facility** a list of their facilities that comprise the planning event **contingency(ies)** that would cause instability, **cascading** or uncontrolled separation that adversely impacts the **reliability** of the **bulk electric system** as identified in its **planning assessment** of the **near-term transmission planning horizon**. [*Alberta Risk Rating: Medium*] [*Time Horizon: Long-term Planning*]

M8. Evidence may include dated electronic or hard copy documentation or other equivalent evidence demonstrating the **ISO** communicated the information in accordance with Requirement R8.

C. Compliance

[Intentionally left blank.]

D. Regional Variance

None.

E. Interpretations

None.

F. Associated Documents

- AESO Information Document ID# 2016-006, *Radial Circuit* and any amendments made from time to time.
- AESO Information Document ID# 2020-014, *Bulk Electric System Definition* and any amendments made from time to time.
- The AESO's *System Operating Limit Methodology for Operations Horizon* and any amendments made from time to time.

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Version History

Version	Effective Date	Description of Change
AB-3	2028-01-01	Revision based on the NERC FAC-014-3, approved in FERC Docket No. RD22-2-000.
AB1-2	2015-10-01	Revised for ISO assumption of Reliability Coordinator functionality for the Alberta footprint.
AB-2	2012-10-01	Initial release.