

ARC Operations Work Group Assessment and Conversion of WECC Standard TOP-007-WECC-1 to Alberta Standard TOP-007-WECC-AB-1 System Operating Limits

Section	TOP-007-WECC-1	Alberta TOP-007-WECC-AB-1	Reason for Difference ¹
Purpose	When actual flows on Major WECC Transfer Paths exceed System Operating Limits (SOL), their associated schedules and actual flows are not exceeded for longer than a specified time.	The purpose of this reliability standard is to ensure the ISO operates Path 1 When actual flows on Major WECC Transfer Paths to its exceed Ssystem Operating Llimits (SOL), their associated schedules and actual flows are not exceeded for longer than a specified time.SOL.	
Applicability	<p>4.1. Transmission Operators for the transmission paths in the most current Table titled “Major WECC Transfer Paths in the Bulk Electric System” provided at:</p> <p>http://www.wecc.biz/Docs/Documents/Table%20Major%20Paths%204-28-08.doc.</p>	<p>4.1. Transmission Operators for the transmission paths in the most current Table titled “Major WECC Transfer Paths in the Bulk Electric System” provided at:</p> <p>http://www.wecc.biz/Docs/Documents/Table%20Major%20Paths%204-28-08.doc.</p> <p><u>This reliability standard applies to the ISO.</u></p>	
Effective Date	On the first day of the first quarter, after applicable regulatory approval.	On the first day of the first quarter, after applicable regulatory approval. <u>10 calendar days after the date of approval by the Commission.</u>	

¹ The following revisions have been made throughout this proposed reliability standard:

- Identified the responsible entities in Alberta.
- Applied a consistent writing style and added clarity.
- Changed passive terms such as “shall” to “must”.
- Developed measures specific to the requirements.

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Definitions		<u>Italicized terms used in this reliability standard have the same meanings as set out in the Alberta Reliability Standards Glossary of Terms and Part 1 of the ISO Rules.²</u>	Added definitions section to the Alberta reliability standard.
Requirement	R1. When the actual power flow exceeds an SOL for a Transmission path, the Transmission Operators shall take immediate action to reduce the actual power flow across the path such that at no time shall the power flow for the Transmission path exceed the SOL for more than 30 minutes. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i>	R1 When the <u>Path 1 or Path 2 actual</u> power flow exceeds <u>an the SOL, for a Transmission path,</u> the <u>Transmission Operators shall ISO must</u> take <u>immediate</u> action to reduce the actual power flow <u>to below the SOL across the path such that at no time shall the power flow for the Transmission path exceed the SOL for more than within</u> 30 minutes. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i>	
Measure	M1. Evidence that actual power flow has not exceeded the SOL for the specified time limit in R1.	MR1 <u>Evidence that actual power flow has not exceeded the SOL for the specified time limit in R1. Telemetered data exists and show that power flows were reduced within timelines specified in requirement R1.</u>	

² Defined terms are not italicized in this document, but will appear in the Alberta Reliability Standards document.

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Requirement	<p>R2. The Transmission Operator shall not have the Net Scheduled Interchange for power flow over an interconnection or Transmission path above the path's SOL when the Transmission Operator implements its real-time schedules for the next hour. For paths internal to a Transmission Operator Area that are not scheduled, this requirement does not apply. <i>[Violation Risk Factor: Low] [Time Horizon: Real-time Operations]</i></p>	<p>R2 The Transmission Operator-ISO shall must not have the Net Sscheduled hinterchange for power flow over an interconnection or Transmission Path 1 above the path's SOL when the Transmission Operator it implements its real-time schedules for the next hour. For paths internal to a Transmission Operator Area that are not scheduled, this requirement does not apply. [Violation Risk Factor: Low] [Time Horizon: Real-time Operations]</p>	
Measure	<p>M2. Evidence that Net Scheduled Interchange has not exceeded the SOL when the Transmission Operator implements real-time schedules as required by R2.</p>	<p>MR2 Net Sscheduled hinterchange <u>records show that SOL</u> was not exceeded the SOL when the Transmission Operator implements real-time schedules as required specified by in requirement R2.</p>	
Requirement	<p>R2.1. If the path SOL decreases within 20 minutes before the start of the hour, the Transmission Operator shall adjust the Net Scheduled Interchange within 30 minutes to the new SOL value. Net Scheduled Interchange exceeding the new SOL during this 30-minute period will not be a violation of R2.</p>	<p>R2.1 The Transmission Operator-ISO shall must adjust the Net-net sScheduled hinterchange within 30 minutes to the new SOL value. If the Path 1 SOL decreases within 20 minutes before the start of the hour. Net Sscheduled hinterchange exceeding the new SOL during this 30-minute period will not be a violation of <u>requirement</u> R2.</p>	

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Procedures	None identified	None identified	
Compliance	To view the compliance section D of the NERC reliability standard follow this link: http://www.nerc.com/files/TOP-007-WECC-1.pdf		There is no compliance section currently proposed in the Alberta Reliability Standards. A compliance program will be developed at a later date for Alberta Reliability Standards that recognizes the compliance monitoring and enforcement structure in Alberta. This approach is deemed consistent with the existing ISO Rules.
Regional Differences	None identified	None identified	Not applicable in Alberta



Proposed Terms for the ARS Glossary:

“*net scheduled interchange*” or “NSI” means the algebraic sum of all *interchange schedules* across a given path or between *balancing authorities* for a given period or instant in time.

“*Path 1*” means the Alberta – British Columbia transfer path as identified by WECC in the document “Major WECC Transfer Paths in the Bulk Electric System”.

“*system operating limit*” or “SOL”[♦]

Defined Terms Used in this Standard:

(As included in the ISO Rules Definitions or Alberta Reliability Standards Glossary)

- *Independent System Operator (ISO)*
- *reliability standard*
- *schedule*
- *Western Electricity Coordinating Council (WECC)*

[♦]The definition for “system operating limit” is being amended to include its acronym “SOL”. There is no further change to the definition.