

**Comparison between TOP-007-WECC-1 and Alberta TOP-007-WECC-AB-1
System Operating Limits**

Section	TOP-007-WECC-1	Alberta TOP-007-WECC-AB-1	Reason for Difference¹
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:</u></p> <ul style="list-style-type: none"> • <u>ISO</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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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. Ten calendar days after the date of approval by the Commission.	
Definitions		<u><i>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.</i></u> ²	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 actual power flow exceeds an SOL for a Transmission path, the Transmission Operators shall ISO must take immediate action to reduce the actual power flow on Path 1 such that at no time shall the power flow on Path 1 exceed the SOL for more than across the path such that at no time shall the power flow for the Transmission path exceed the SOL for more than within 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 Evidence that actual power flow has not exceeded the SOL for the specified time limit in R1. Telemetered data exists and show that	

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

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		power flows <u>were reduced within timelines specified in requirement R1.</u>	
Requirement	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>	R2 <u>Subject to requirement R 2.1, t</u> The Transmission Operator ISO shall must not permithave the N <u>net S</u> s cheduled l <u>interchange</u> for power flow over an interconnection or Transmission Path 1 for any hour to be above the P <u>path 1's</u> SOL when the Transmission Operator <u>it</u> 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]	
Measure	M2. Evidence that Net Scheduled Interchange has not exceeded the SOL when the Transmission Operator implements real-time schedules as required by R2.	MR2 N <u>net S</u> s cheduled l <u>interchange records</u> show that SOL was not exceeded the SOL when the T <u>transmission Operator implements real-time schedules as required specified by in</u> <u>requirement R2.</u>	
Requirement	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	R2.1. <u>T</u> the Transmission Operator shall <u>ISO must</u> adjust the <u>Path 1 N</u> net Scheduled-scheduled <u>Interchange-interchange</u> within 30 minutes to the new <u>Path 1 SOL-value</u> If if the path-Path 1 SOL decreases within 20 minutes before the start of the hour. Net Scheduled Interchange exceeding	Deleted last sentence as it is covered in the subject to clause at the beginning of R2.

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	this 30-minute period will not be a violation of R2.	the new SOL during this 30-minute period will not be a violation of R2.	
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.