

ARC Operations Work Group Assessment and Conversion of WECC Standard IRO-006-WECC-1 to Alberta Standard IRO-006-AB-1 Qualified Transfer Path Unscheduled Flow Relief

Section	WECC IRO-006-WECC-1	Alberta IRO-006-WECC-AB-1	Reason for Difference ¹
Purpose	Mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths.	<u>The purpose of this reliability standard is to mitigate transmission overloads due to unscheduled flow on qualified transfer paths.</u>	
Applicability	4.1. Balancing Authorities 4.2 Reliability Coordinators.	<u>This reliability standard applies to:</u> - <u>ISO</u>	Applies only to the ISO.
Effective Date	Nine months after BOT adoption.	<u>10 calendar days after the date of approval by the Commission.</u>	
Definitions		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	Added definitions section to the Alberta reliability standard.
Requirement	R.1. Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability		This requirement applies to the reliability coordinator and does not

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4.2 Reliability Coordinators
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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.

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

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	Coordinator shall approve (actively or passively) or deny that request within five minutes. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i>		apply to an Alberta entity
Measure	M1. The Reliability Coordinator shall have evidence that it approved or denied the request within five minutes in accordance with R1.		
Requirement	R.2. The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement. <i>[Violation Risk Factor: Medium] [Time Horizon: Realtime Operations]</i>	R1. The ISO must approve <u>schedule curtailment requests submitted to mitigate transmission overloads on qualified transfer paths</u> , implement alternative actions, or a combination thereof <u>that collectively meets the relief requirement.</u>	
Measure	M2. The Balancing Authorities shall have evidence that they provided the Relief Requirement through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in R.2.	MR1. <u>E-tags, voice recordings or operator logs exist and are provided on request. E-tags, voice recordings or operator logs contain content confirming requirement R1 is met.</u>	
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/IRO-006-WECC-1.pdf		There is no compliance section currently proposed in the Alberta Reliability Standards.

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			<p>A compliance program will be developed at a later date for Alberta Reliability Standards that recognizes the compliance monitoring and enforcement structure in Alberta.</p> <p>This approach is deemed consistent with the existing ISO Rules.</p>
Regional Differences	None identified	None identified	Not applicable in Alberta



**Attachment 1 WECC IRO-006-WECC-AB-1
WECC UNSCHEDULED FLOW MITIGATION SUMMARY OF ACTIONS**

Step	Action Description	Unscheduled Flow Accommodation across Path	Equivalent Percent Curtailment Required in Contributing Schedule -Based on amount of Unscheduled Flow across the Qualified Transfer Path (Transfer Distribution Factor)					
			10-14%	15 – 19%	20 – 29%	30 – 49%	50+ %	
1	Operate controllable devices in path							
2	Accommodation	50 MW or 5% of maximum transfer limit						
3	Coordinated operation of Qualified Controllable Devices	50 MW or 15% of maximum transfer limit						
4	First level curtailment	50 MW or 5% of maximum transfer limit				10%	20%	
5	Second level curtailment	50 MW or 5% of maximum transfer limit			10%	15%	25%	
6	Accommodation	75 MW or 6% of maximum transfer limit			10%	15%	25%	
7	Third level curtailment	75 MW or 6% of maximum transfer limit		10%	15%	20%	30%	
8	Accommodation	100 MW or 7% of maximum transfer limit		10%	15%	20%	30%	
9	Fourth level curtailment	100 MW or 7% of maximum transfer limit	10%	15%	20%	25%	35%	



Proposed Terms for the Alberta Reliability Standards Glossary:

“qualified transfer path” means a transfer path designated by the WECC Operating Committee as being qualified for WECC unscheduled flow mitigation.

“relief requirement” means the unscheduled flow reduction on a qualified transfer path that would result by curtailing each sink balancing authority’s contributing schedules by the percentages listed in the columns of WECC Unscheduled Flow Mitigation Summary of Actions Table in Attachment 1 WECC IRO-006-WECC-AB-1.

“contributing schedule” means a schedule between a source balancing authority and a sink balancing authority that contributes unscheduled flow across a qualified transfer path.

“qualified controllable device” means a controllable device approved by WECC Operating Committee for controlling the unscheduled flow on the qualified transfer paths and installed in the Interconnection for controlling energy flow.

“transfer distribution factor” means the percentage of unscheduled flow across a qualified transfer path when a contributing schedule is implemented.

“sink balancing authority area” means the balancing authority area in which the load is located for an interchange transaction.

“source balancing authority area” means the balancing authority area in which the generating unit is located for an interchange transaction.

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Defined Terms Used in this Standard:

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

- e-tags
- Independent System Operator (ISO)
- interchange schedule
- Interconnection
- reliability standard
- schedule
- Western Electricity Coordinating Council (WECC)