

Alberta Reliability Standards Program Work Plan

Update: September 2019  
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NERC and WECC Standards		Applicability <sup>1</sup>	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date <sup>2</sup>
1. Standards Approved by the AUC						
BAL-003-AB1-1.1	Frequency Response	ISO		N/A	June 19, 2019	August 1, 2019
CIP-014-AB-2	Physical Security	ISO/MP	Remove ISO rules Section 501.2	May 31, 2018 - Jun 15, 2018	July 18, 2018	July 1, 2020
IRO-001-4	Reliability Coordination - Responsibilities	ISO		N/A	June 12, 2019	December 1, 2019
IRO-002-5	Reliability Coordination - Monitoring and Analysis	ISO		N/A	June 12, 2019	December 1, 2019
IRO-003-AB-2	Reliability Coordination – Wide-Area View	ISO		N/A	June 12, 2019	December 1, 2019
IRO-005-AB-3.1a	Reliability Coordination – Current Day Operations	ISO		N/A	June 12, 2019	December 1, 2019
IRO-008-2	Reliability Coordinator Operational Analyses and Real-time Assessments	ISO		N/A	June 12, 2019	December 1, 2019
IRO-009-2	Reliability Coordinator Actions to Operate within IROLs	ISO		N/A	June 12, 2019	December 1, 2019
IRO-010-2	Reliability Coordinator Data Specification and Collection	ISO		N/A	June 12, 2019	December 1, 2019
IRO-014-3	Coordination Among Reliability Coordinators	ISO		N/A	June 12, 2019	December 1, 2019
IRO-015-AB-1	Notifications and Information Exchange Between Reliability Coordinators	ISO		N/A	June 12, 2019	December 1, 2019
IRO-016-AB-1	Coordination of Real-time Activities Between Reliability Coordinators	ISO		N/A	June 12, 2019	December 1, 2019
IRO-017-1	Outage Coordination	ISO		N/A	June 12, 2019	December 1, 2019
IRO-018-1(i)	Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities	ISO		N/A	June 12, 2019	December 1, 2019
PRC-002-AB-2	Disturbance Monitoring and Reporting Requirements	ISO/MP		September 19, 2018	November 23, 2018	October 1, 2019
PRC-005-AB1-6 amendment	Protection System, Automatic Reclosing and Sudden Pressure Relaying Maintenance	MP		March 28, 2019 - April 12, 2019	May 29, 2019	October 1, 2019
PRC-018-AB-1 (retire)	Disturbance Monitoring Equipment Installation and Data Reporting	ISO/MP		September 19, 2018	November 23, 2018	See Implementation Plan PRC-002-AB-2, Appendix 2. Retirement of existing PRC-018-AB-1 effective midnight on September 30, 2025.
PRC-019-AB-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	ISO/MP		June 21, 2018 - July 12, 2018	August 31, 2018	January 1, 2022
PRC-023-AB-4	Transmission Relay Loadability	ISO/MP		January 10, 2019 - January 31, 2019	May 30, 2019	The first day of the calendar quarter following one full calendar quarter after approval by the Commission
PRC-025-AB-2	Generator Relay Loadability	MP	Section 502.5 of the ISO rules	January 10, 2019 - January 31, 2019	May 30, 2019	The first day of the calendar quarter that follows twenty full calendar quarters after approval by the Commission
TOP-001-4	Transmission Operations	N/A		N/A	June 12, 2019	December 1, 2019
TOP-002-4	Operation Planning	N/A		N/A	June 12, 2019	December 1, 2019
TOP-003-3	Operational Reliability Data	N/A		N/A	June 12, 2019	December 1, 2019
TOP-005-AB3-1	Operational Reliability Information	N/A		N/A	June 12, 2019	December 1, 2019
TOP-006-2	Monitoring System Conditions	N/A		N/A	June 12, 2019	December 1, 2019
TOP-010-1(i)	Real Time Reliability Monitoring and Analysis Capabilities	N/A		N/A	June 12, 2019	December 1, 2019
2. Standards Forwarded to the AUC						
None at this time						
3. Standards Under Development						
BES Definition, Radial Circuit, System Access Service	bulk electric system, Radial Circuit, System Access Service	ISO/MP		July 23, 2019 - August 6, 2019	Q3-2019 Q4 2019	TBD
COM-001-AB-3 (retire)	Communications	N/A	Sections 502.17 and 502.4 of the ISO rules	March 19, 2019 - April 3, 2019	Q3-2019 Q4 2019	TBD
COM-002-AB-4	Operating Personnel Communications Protocols	ISO/MP		March 19, 2019 - April 3, 2019	Q3-2019 Q4 2019	TBD
EOP-001-AB1-2.1b (retire)	Emergency Operations Planning	ISO/MP		Q3-2019-Q4 2019	Q3-2019 Q4 2019	TBD
EOP-002-AB1-2 (retire)	Capacity and Energy Emergencies	ISO/MP		Q3-2019-Q4 2019	Q3-2019 Q4 2019	TBD

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EOP-003-AB1-1 (retire in part)	Load Shedding Plans	ISO/MP		<del>Q3-2019-Q4 2019</del>	<del>Q3-2019 Q4 2019</del>	TBD
EOP-011-AB-1	Emergency Operations	ISO/MP	Sections 202.2 and 305.1 of the ISO rules	<del>Q3-2019-Q4 2019</del>	<del>Q3-2019-Q4 2019</del>	TBD
PRC-001-AB4-1.1(ii)	System Protection Coordination (retire R3 and R4)	MP		<del>Q4-2019-Q1 2020</del>	Q1 2020	TBD
PRC-006-AB-3	Automatic Underfrequency Load Shedding	ISO/MP	OPP 804	<del>Q3-2019-Q4 2019</del>	<del>Q3-2019 Q4 2019</del>	TBD
PRC-009-AB-0 (retire)	UFLS Performance Following an Underfrequency Event	ISO		<del>Q3-2019-Q4 2019</del>	<del>Q3-2019 Q4 2019</del>	TBD
PRC-010-2	Undervoltage Load Shedding	ISO/MP		<del>Q3-2019-Q4 2019</del>	<del>Q3-2019 Q4 2019</del>	TBD
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	MP	Sections 502.1,	<del>Q3-2019-Q4 2019</del>	<del>Q3-2019 Q4 2019</del>	
PRC-026-AB-1	Relay Performance During Stable Power Swings	ISO/MP		<del>Q4-2019-Q1 2020</del>	<del>Q4-2019-Q1 2020</del>	TBD
PRC-027-AB-1	Coordination of Protection Systems for Performance During Faults	MP		<del>Q4-2019-Q1 2020</del>	Q1 2020	TBD
TPL-001-AB-4 or 5	Transmission System Planning Performance Requirements	ISO		TBD	TBD	TBD
TPL-002-AB1-0 (retire)	System Performance Following Loss of a Single BES Element	ISO		TBD	TBD	TBD
TPL-003-AB-0 (retire)	System Performance Following Loss of Two or More BES Elements	ISO		TBD	TBD	TBD
TPL-004-AB-0 (retire)	System Performance Following Extreme BES Events	ISO		TBD	TBD	TBD
<b>4. Standards Next in Queue for Development</b>				<b>Status</b>		
CIP-006-6	Cyber Security - Physical Security of BES Cyber Systems	ISO/MP		In effect in US, July 1, 2016 (R3.1 in effect July 1, 2017)		
CIP-013-1	Cyber Security – Supply Chain Risk Management	ISO/MP		In effect in US, July 1, 2020		
<b>5. High Priority Standards for Development</b>				<b>Status</b>		
None at this time						
<b>6. Medium Priority Standards for Development</b>				<b>Status</b>		
BAL-004-WECC-3	Automatic Time Error Correction	ISO		FERC Approved May 30, 2018		
EOP-005-3	System Restoration from Blackstart Resources	MP		In effect in US, April 1, 2019		
EOP-006-3	System Restoration Coordination	ISO		In effect in US, April 1, 2019		
EOP-010-1	Geomagnetic Disturbance Operations	ISO/MP		In effect in US, April 1, 2015; R5 in effect on April 1, 2017		
FAC-003-4	Transmission Vegetation Management	MP		In effect in US, October 1, 2016		
FAC-011-3	System Operating Limits Methodology for the Operations Horizon	ISO		In effect in the US, April 1, 2017		
PER-006-1	Specific Training for Personnel	MP		In effect in the US, October 1, 2020		
PRC-004-WECC-2 (retire)	Protection System and Remedial Action Scheme Misoperation	ISO/MP		Retire in the US, January 1, 2021 with the effective date of PRC-012-2		
PRC-012-2	Remedial Action Schemes	ISO/MP		In effect in the US, January 1 2021, will result in retirement of PRC-004-WECC-2		
PRC-015-1	Special Protection System Data and Documentation	MP		In effect in the US, April 1, 2017		
PRC-016-1	Remedial Action Scheme Misoperations	MP		In effect in the US, April 1, 2017		
TPL-007-3	Transmission System Planned Performance for Geomagnetic Disturbance Events	ISO/MP		In effect in the US July 1, 2019		
VAR-002-WECC-2 (retire)	Automatic Voltage Regulators	MP		Inactive in US, September 5, 2018		
VAR-501-WECC-3.1	Power System Stabilizer	MP		In effect in US, September 26, 2017		
<b>7. Low Priority Standards for Development</b>				<b>Status</b>		
BAL-002-WECC-AB-2a	Contingency Reserve	ISO				
CIP-002-5.1a	Cyber Security - BES Cyber System Categorization	ISO/MP		In effect in US, December 27, 2016		
CIP-003-7	Security Management Controls	ISO/MP		<del>FERC approved, April 19, 2018</del> In effect in US, January 1, 2020		
CIP-004-6	Cyber Security - Personnel and Training	ISO/MP		In effect in US, October 1 2016 (R2.3, 4.3,4.4 in effect July 1, 2017)		
CIP-005-6	Cyber Security – Electronic Security Perimeter(s)	ISO/MP		In effect in US, July 1, 2020		
CIP-007-6	Cyber Security - System Security Management	ISO/MP		In effect in US, July 1, 2016		
CIP-009-6	Cyber Security - Recovery Plans for BES Cyber Systems	ISO/MP		In effect in US, July 1, 2016 (R2.1 -2.2 in effect July 1, 2017)		
CIP-010-3	Cyber Security – Configuration Change Management and Vulnerability Assessments	ISO/MP		In effect in US, July 1, 2020		
CIP-011-2	Cyber Security - Information Protection	ISO/MP		In effect in US, July 1, 2016		
EOP-004-4	Event Reporting	ISO/MP		In effect in US, April 1, 2019		
EOP-008-2	Loss of Control Center Functionality	ISO/MP		In effect in US, April 1, 2019		
FAC-001-3	Facility Interconnection Requirements	ISO/(MP?)		In effect in the US January 1 2019		
FAC-002-2	Facility Interconnection Studies	ISO/MP		In effect in US, January 1, 2016		
FAC-010-3	System Operating Limits Methodology for the Planning Horizon	ISO		In effect in the US, April 1, 2017		
FAC-013-2 <sup>5</sup> (retire)	Assessment of Transfer Capability for the Near-term Transmission Planning Horizon	ISO		In effect in US, April 1, 2013		
MOD-001-1a <sup>5</sup> (retire)	Available Transmission System Capability	ISO		In effect in the US, April 1, 2011		
MOD-008-1	TRM Calculation Methodology	ISO		In effect in the US, April 1, 2011		
MOD-029-2a <sup>5</sup> (retire)	Rated System Path Methodology	ISO		In effect in US, July 1, 2014		
MOD-032-1	Data for Power System Modeling and Analysis (retires MOD-010&012)	ISO/MP		In effect in US, July 1, 2015		

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MOD-033-1	Steady-State and Dynamic System Model Validation	ISO/(MP?)		In effect in US, July 1, 2017		
PRC-004-5(i)	Protection System Misoperation Identification and Correction	MP		In effect in US, April 2, 2017		
VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules	MP		In effect in US, September 26, 2017		
<b>8. Standards Not Yet Prioritized for Development</b>						
CIP-008-6	Cyber Security – Incident Reporting and Response Planning	ISO/MP		In effect in US, April 1, 2020		
FAC-501-WECC-2	Transmission Maintenance	MP		In effect in the US, July 1, 2018		
IRO-002-6	Reliability Coordination - Monitoring and Analysis	ISO		In effect in the US, January 1, 2020		
IRO-006-WECC-3	Qualified Path Unscheduled Flow Relief	ISO		In effect in the US, October 1, 2019		
PER-003-2	Personnel Credentials	ISO/MP		In effect in the US, July 1, 2019		
VAR-001-5	Voltage and Reactive Control	ISO/MP		In effect in US, January 1, 2019		
<b>9. Standards Approved by NERC and Filed with FERC</b>				<b>Status</b>		
CIP-008-6	Cyber Security – Incident Reporting and Response Planning			Filed FERC March 7, 2019		
CIP-003-8	Cyber Security - Security Management Control			Filed with FERC May 21, 2019		
CIP-012-1	Cyber Security – Communications between Control Centers			Filed with FERC September 18, 2018 (FERC proposes to approve and proposes to direct NERC to modify standard)		
FAC-008-4 <sup>6</sup>	Facility Ratings			Filed with FERC June 7, 2019		
INT-004-3.1 <sup>5</sup> (retire)	Dynamic Transfers	N/A		Filed with FERC June 7, 2019		
INT-006-5 <sup>6</sup>	Evaluation of Interchange Transactions			Filed with FERC June 7, 2019		
INT-009-3 <sup>6</sup>	Implementation of Interchange			Filed with FERC June 7, 2019		
INT-010-2.1 <sup>5</sup> (retire)	Interchange Initiation and Modification for Reliability	ISO		Filed with FERC June 7, 2019		
IRO-002-7 <sup>6</sup>	Reliability Coordination - Monitoring and Analysis			Filed with FERC June 7, 2019		
MOD-004-1 <sup>5</sup> (retire)	Capacity Benefit Margin	N/A		Filed with FERC June 7, 2019		
MOD-008-1 <sup>5</sup> (retire)	Transmission Reliability Margin Calculation Methodology	N/A		Filed with FERC June 7, 2019		
MOD-028-2 <sup>5</sup> (retire)	Area Interchange Methodology	N/A		Filed with FERC June 7, 2019		
MOD-030-3 <sup>5</sup> (retire)	Flowgate Methodology	N/A		Filed with FERC June 7, 2019		
PRC-004-6 <sup>6</sup>	Protection System Misoperation Identification and Correction			Filed with FERC June 7, 2019		
TOP-001-5 <sup>6</sup>	Transmission Operations			Filed with FERC June 7, 2019		
VAR-001-6 <sup>6</sup>	Voltage and Reactive Control			Filed with FERC June 7, 2019		
TPL-001-5	Transmission System Planning Performance Requirements	ISO		Filed with FERC December 7, 2018		
<b>10. Standards Approved by NERC and Awaiting Filing with FERC</b>				<b>Status</b>		
None at this time						

Changes from the last posting are in **red** text.

Footnote 1 - For new standards, the applicability represents the entities the standard applies to; for amendments to existing standards, applicability identifies the entities that the amendments apply to.

Footnote 2 - The effective date is not firm and the actual date is dependent upon approval by the Commission.

Footnote 3 - The AESO reviewed the standard and came to the conclusion that the proposed changes do not directly affect market participants. Therefore, **the AESO will not be consulting on this standard.**

Footnote 4 - *placeholder for future use.*

Footnote 5 - This standard is part of NERC Standards Efficiency Review project and is proposed to be retired with this project.

Footnote 6 - This standard is part of NERC Standards Efficiency Review project and contains proposed partial retirements.

The Alberta Reliability Standards Project Work Plan (the "Work Plan") is for general information purposes only and the Alberta Electric System Operator reserves the right to change or modify the Work Plan at any time without notice. Under no circumstances will the Alberta Electric System Operator, its members, officers, employees, contractors or agents, or any of their respective affiliates, be liable for any errors or omissions in, or any losses, damages or claims whatsoever, whether in contract, tort or otherwise, arising from use of or reliance upon, the Work Plan or any information contained herein. Parties using or relying on the Work Plan do so solely at their own risk, and all information contained herein should be independently verified.

**Legend for Section 3 - Standards Under Development**

	Individual reliability standard or initiative
	Communication related standards
	Standards related to the development of EOP-011-AB-1 Emergency Operations
	Standards that are part of the reliability coordinator initiative
	Standards related to the development of PRC-027-AB-1 Coordination of Protection Systems for Performance During Faults
	Relay Loadability standards
	Transmission Planning standards