

Alberta Reliability Standards Program Work Plan

Update: July 2019

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NERC and WECC Standards		Applicability ¹	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date ²
1. Standards Approved by the AUC						
BAL-001-AB-2	Real Power Balancing Control Performance	ISO		N/A	July 12, 2018	July 1, 2019
BAL-003-AB-1.1	Frequency Response	ISO		N/A	July 12, 2018	July 1, 2019
BAL-005-AB-1	Balancing Authority Control	ISO		N/A	July 12, 2018	July 1, 2019
BAL-006-AB-1	Inadvertent Interchange	ISO		N/A - Recommend Retirement of Standard	July 12, 2018	July 1, 2019
BAL-002-AB-3	Disturbance Control Standard - Contingency Reserve for Recovery from a Balancing Contingency Event	ISO		N/A	Jan-19	July 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
EOP-008-AB-1	Loss of Control Center Functionality	ISO/MP		September 30, 2015 to October 28, 2015	March 12, 2015	July 1, 2019
PRC-002-AB-2	Disturbance Monitoring and Reporting Requirements	ISO/MP		September 19, 2018	November 23, 2018	October 1, 2019
PRC-005-AB-6	Protection System, Automatic Reclosing and Sudden Pressure Relaying Maintenance	ISO/MP		February 15, 2018 - March 15, 2018	July 24, 2018	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
2. Standards Forwarded to the AUC						
BAL-003-AB1-1.1	Frequency Response	ISO		N/A	June 19, 2019	Upon approval by the AUC
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 IROs	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
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
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-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
3. Standards Under Development						

NERC and WECC Standards		Applicability ¹	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date ²
BES Definition	bulk electric system	ISO/MP		Q3 2019	Q3 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	TBD
COM-002-AB-4	Operating Personnel Communications Protocols	ISO/MP		March 19, 2019 - April 3, 2019	Q3 2019	TBD
EOP-001-AB1-2.1b (retire)	Emergency Operations Planning	ISO/MP		Q3 2019	Q3 2019	TBD
EOP-002-AB1-2 (retire)	Capacity and Energy Emergencies	ISO/MP		Q3 2019	Q3 2019	TBD
EOP-003-AB1-1 (retire in part)	Load Shedding Plans	ISO/MP		Q3 2019	Q3 2019	TBD
EOP-011-AB-1	Emergency Operations	ISO/MP	Sections 202.2 and 305.1 of the ISO rules	Q3 2019	Q3 2019	TBD
IRO-001-4	Reliability Coordination – Responsibilities–	ISO		N/A	June 12, 2019	Dec-19
IRO-002-5	Reliability Coordination – Monitoring and Analysis –	ISO		N/A	June 12, 2019	Dec-19
IRO-003-AB-2	Reliability Coordination – Wide-Area View–	ISO		N/A	June 12, 2019	Dec-19
IRO-005-AB-3.1a	Reliability Coordination – Current Day Operations–	ISO		N/A	June 12, 2019	Dec-19
IRO-008-2	Reliability Coordinator Operational Analyses and Real-time Assessments–	ISO		N/A	June 12, 2019	Dec-19
IRO-009-2	Reliability Coordinator Actions to Operate within IROs–	ISO		N/A	June 12, 2019	Dec-19
IRO-010-2	Reliability Coordinator Data Specification and Collection–	ISO		N/A	June 12, 2019	Dec-19
IRO-014-3	Coordination Among Reliability Coordinators–	ISO		N/A	June 12, 2019	Dec-19
IRO-015-AB-1	Notifications and Information Exchange Between Reliability Coordinators–	ISO		N/A	June 12, 2019	Dec-19
IRO-016-AB-1	Coordination of Real-time Activities Between Reliability Coordinators–	ISO		N/A	June 12, 2019	Dec-19
IRO-017-1	Outage Coordination–	ISO		N/A	June 12, 2019	Dec-19
IRO-018-1(i)	Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities–	ISO		N/A	June 12, 2019	Dec-19
PRC-001-AB4-1.1(ii)	System Protection Coordination (retire R3 and R4)	MP		Q4 2019	Q1 2020	TBD
PRC-006-AB-3	Automatic Underfrequency Load Shedding	ISO/MP	OPP 804	Q3 2019	Q3 2019	TBD
PRC-009-AB-0 (retire)	UFLS Performance Following an Underfrequency Event	ISO		Q3 2019	Q3 2019	TBD
PRC-010-2	Undervoltage Load Shedding	ISO/MP		Q3 2019	Q3 2019	TBD
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	MP	Sections 502.1,	Q3 2019	Q3 2019	
PRC-026-AB-1	Relay Performance During Stable Power Swings	ISO/MP		Q4 2019	Q4 2019	TBD
PRC-027-AB-1	Coordination of Protection Systems for Performance During Faults	MP		Q4 2019	Q1 2020	TBD
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
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
4. Standards Next in Queue for Development				Status		
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		
5. High Priority Standards for Development				Status		
None at this time						
6. Medium Priority Standards for Development				Status		
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		

NERC and WECC Standards		Applicability ¹	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date 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	
7. Low Priority Standards for Development					Status	
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			FERC approved, April 19, 2018	
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 ⁵ (retire)	Assessment of Transfer Capability for the Near-term Transmission Planning Horizon	ISO			In effect in US, April 1, 2013	
MOD-001-1a ⁵ (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 ⁵ (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	
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	
8. Standards Not Yet Prioritized for Development						
FAC-501-WECC-2	Transmission Maintenance	MP			In effect in the US, July 1, 2018	
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	
9. Standards Approved by NERC and Filed with FERC					Status	
CIP-008-6	Cyber Security – Incident Reporting and Response Planning				Filed FERC March 7, 2019	
CIP-003-8	Cyber Security - Security Management Control				Filed 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	
FAC-008-4 ⁶	Facility Ratings				Filed June 7, 2019	
INT-004-3.1 ⁵ (retire)	Dynamic Transfers	N/A			Filed June 7, 2019	
INT-006-5 ⁶	Evaluation of Interchange Transactions				Filed June 7, 2019	
INT-009-3 ⁶	Implementation of Interchange				Filed June 7, 2019	
INT-010-2.1 ⁵ (retire)	Interchange Initiation and Modification for Reliability	ISO			Filed June 7, 2019	
IRO-002-7 ⁶	Reliability Coordination - Monitoring and Analysis				Filed June 7, 2019	
IRO-006-WECC-3	Qualified Path Unscheduled Flow Relief	ISO			Filed with FERC March 6, 2019	
MOD-001-2	Available Transmission System Capability				Filed with FERC, February 10, 2014	
MOD-004-1 ⁵ (retire)	Capacity Benefit Margin	N/A			Filed June 7, 2019	
MOD-008-1 ⁵ (retire)	Transmission Reliability Margin Calculation Methodology	N/A			Filed June 7, 2019	
MOD-028-2 ⁵ (retire)	Area Interchange Methodology	N/A			Filed June 7, 2019	
MOD-030-3 ⁵ (retire)	Flowgate Methodology	N/A			Filed June 7, 2019	
PRC-004-6 ⁶	Protection System Misoperation Identification and Correction				Filed June 7, 2019	
TOP-001-5 ⁶	Transmission Operations				Filed June 7, 2019	
VAR-001-6 ⁶	Voltage and Reactive Control				Filed June 7, 2019	
TPL-001-5	Transmission System Planning Performance Requirements	ISO			Filed with FERC December 7, 2018	
10. Standards Approved by NERC and Awaiting Filing with FERC					Status	
None at this time						

Changes from the last posting are in red text.

Footnote 2 - The AESO reviewed the standards and came to the conclusion that at this time the proposed changes do not directly affect market participants. Therefore the AESO will not be consulting on these standards.

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.

NERC and WECC Standards	Applicability ¹	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date ²
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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, consultation with market participants to address the foregoing is not required.

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