

# Alberta Reliability Standards Program Work Plan

Update: January 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>
<b>1. Standards Approved by the AUC</b>						
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
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
<del>FAC-008-AB-3</del>	<del>Facility Ratings</del>	<del>ISO/MP</del>		<del>March 23, 2017 – April 20, 2017</del>	<del>October 2, 2017</del>	<del>January 1, 2019</del>
<del>PER-003-AB-1</del>	<del>Operations Personnel Credentials</del>	<del>MP</del>		<del>November 23, 2017 – December 13, 2017</del>	<del>February 13, 2018</del>	<del>January 1, 2019</del>
MOD-027-1	Verification of Models and Data for Turbine/Governor and Load Ctrl	N/A	502.1, 502.5, 502.6, 502.16	November 6, 2018	November 21, 2018	TBD-December 20, 2018
PRC-004-AB2-1	Analysis and Mitigation of Transmission and Generation Protection System Misoperation	ISO/MP		July 19, 2018 - Aug 3, 2018	October 25, 2018	April 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	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	Aug 31, 2018	January 1, 2022
<b>2. Standards Forwarded to the AUC</b>						
<del>MOD-027-1</del>	<del>Verification of Models and Data for Turbine/Governor and Load Ctrl</del>	<del>N/A</del>	<del>502.1, 502.5, 502.6, 502.16</del>	<del>November 6, 2018</del>	<del>November 21, 2018</del>	<del>TBD</del>
<del>PRC-004-AB2-1</del>	<del>Analysis and Mitigation of Transmission and Generation Protection System Misoperation</del>	<del>ISO/MP</del>		<del>July 19, 2018 - Aug 3, 2018</del>	<del>October 25, 2018</del>	<del>The first day of the calendar quarter following one full calendar quarter after approval by the Commission</del>
<b>3. Standards Under Development</b>						
BAL-002-AB-3	Disturbance Control Standard - Contingency Reserve for Recovery from a Balancing Contingency Event	ISO		N/A	Q4 2018-January 17, 2019	TBD July 1, 2019
<del>BAL-002-WECC-AB-2a</del>	<del>Contingency Reserve</del>	<del>ISO</del>		<del>TBD</del>	<del>TBD</del>	<del>TBD</del>
BES Definition	bulk electric system	ISO/MP		Q1 2019	Q1 2019	TBD
COM-001-AB-3	Communications	N/A	Section 502.17 of the ISO rules	TBD-Q1 2019	TBD-Q1 2019	TBD
COM-002-AB-4	Operating Personnel Communications Protocols	ISO/MP		TBD-Q1 2019	TBD-Q1 2019	TBD
EOP-001-AB1-2.1b (retire)	Emergency Operations Planning	ISO/MP		Q4 2018 Q3 2019	Q4 2018 Q3 2019	TBD
EOP-002-AB1-2 (retire)	Capacity and Energy Emergencies	ISO/MP		Q4 2018 Q3 2019	Q4 2018 Q3 2019	TBD
EOP-003-AB1-1 (retire in part)	Load Shedding Plans	ISO/MP		Q4 2018 Q3 2019	Q4 2018 Q3 2019	TBD
EOP-011-AB-1	Emergency Operations	ISO/MP	Section 202.2 and 305.1 of the ISO rules	Q4 2018 Q3 2019	Q4 2018 Q3 2019	TBD
IRO-001-4	Reliability Coordination - Responsibilities	ISO/MP		TBD	TBD-Q2 2019	TBD
IRO-002-5	Reliability Coordination - Monitoring and Analysis	ISO		N/A	TBD-Q2 2019	TBD
IRO-003-AB-2	Reliability Coordination – Wide-Area View	ISO		N/A	TBD-Q2 2019	TBD
IRO-005-AB-3.1a	Reliability Coordination – Current Day Operations	ISO		N/A	TBD-Q2 2019	TBD

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IRO-008-2	Reliability Coordinator Operational Analyses and Real-time Assessments	ISO		N/A	TBD-Q2 2019	TBD
IRO-009-2	Reliability Coordinator Actions to Operate within IROs	ISO		N/A	TBD-Q2 2019	TBD
IRO-010-2	Reliability Coordinator Data Specification and Collection	ISO/MP		TBD	TBD-Q2 2019	TBD
IRO-014-3	Coordination Among Reliability Coordinators	ISO		N/A	TBD-Q2 2019	TBD
IRO-015-AB-1	Notifications and Information Exchange Between Reliability Coordinators	ISO		N/A	TBD-Q2 2019	TBD
IRO-016-AB-1	Coordination of Real-time Activities Between Reliability Coordinators	ISO		N/A	TBD-Q2 2019	TBD
IRO-017-1	Outage Coordination	ISO/MP		TBD	TBD-Q2 2019	TBD
IRO-018-1(i)	Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities	ISO		N/A	TBD-Q2 2019	TBD
PRC-001-AB4-1.1(ii)	System Protection Coordination (retire R3 and R4)	MP		Q4 2018-Q1 2019	Q1 2019 Q2 2019	TBD
PRC-005-AB1-6 amendment	Protection System, Automatic Reclosing and Sudden Pressure Relaying Maintenance	ISO/MP		Q1 2019	Q1 2019	October 1, 2019
PRC-006-AB-3	Automatic Underfrequency Load Shedding	ISO/MP	OPP 804	Q1 2019 Q3 2019	Q1 2019 Q3 2019	TBD
PRC-023-AB-4	Transmission Relay Loadability	ISO/MP		January 10, 2019 - January 31, 2019	Q1 2019	The first day of the calendar quarter following one full calendar quarter after approval by the Commission
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	MP		Q3 2019	Q3 2019	
PRC-025-AB-2	Generator Relay Loadability	MP	Section 502.5 of the ISO rules	January 10, 2019 - January 31, 2019	Q1 2019	The first day of the calendar quarter that follows twenty full calendar quarters after approval by the Commission
PRC-026-AB-1	Relay Performance During Stable Power Swings	ISO/MP		Q1 Q2 2019	Q1 Q2 2019	TBD
PRC-027-AB-1	Coordination of Protection Systems for Performance During Faults	MP		Q4 2018-Q1 2019	Q1 2019 Q2 2019	TBD
TOP-001-4	Transmission Operations	ISO/MP		Q1 2019	Q2 2019	TBD
TOP-002-4	Operation Planning	ISO/MP		Q1 2019	Q2 2019	TBD
TOP-003-3	Operational Reliability Data	ISO/MP		Q1 2019	Q2 2019	TBD
TOP-005-AB3-1	Operational Reliability Information	ISO		N/A	Q2 2019	
TOP-006-2	Monitoring System Conditions	N/A		Q1 2019	Q2 2019	
TPL-001-AB-4	Transmission System Planning Performance Requirements	ISO		Q1 2019 TBD	Q1 2019 TBD	TBD
TPL-002-AB1-0 (retire)	System Performance Following Loss of a Single BES Element	ISO		Q1 2019 TBD	Q1 2019 TBD	TBD
TPL-003-AB-0 (retire)	System Performance Following Loss of Two or More BES Elements	ISO		Q1 2019 TBD	Q1 2019 TBD	TBD
TPL-004-AB-0 (retire)	System Performance Following Extreme BES Events	ISO		Q1 2019 TBD	Q1 2019 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		
CIP-005-6-	Cyber Security – Electronic Security Perimeter(s)-	ISO/MP		In effect in US, July 1, 2020		
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-012-2	Remedial Action Schemes	ISO/MP		In effect in the US, January 1 2021		
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		
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings-	MP		In effect in the US, July 1, 2016		
TOP-001-4	Transmission Operations	ISO/MP		In effect in the US, July 1 2018		
TOP-010-1(i)	Real-time Reliability Monitoring and Analysis Capabilities-	ISO/MP		In effect in the US, April 1 2018		
TPL-007-1	Transmission System Planned Performance for Geomagnetic Disturbance Events	ISO/MP		In effect in the US July 1, 2017		
VAR-002-WECC-2	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		

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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	Assessment of Transfer Capability for the Near-term Transmission Planning Horizon	ISO		In effect in US, April 1, 2013		
MOD-001-1a	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	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		
PRC-010-2	Undervoltage Load Shedding	ISO/MP		In effect in US, April 2, 2017		
<del>TOP-002-4</del>	<del>Operation Planning</del>	<del>ISO/MP</del>		<del>In effect in US, April 1, 2017</del>		
<del>TOP-003-3</del>	<del>Operational Reliability Data</del>	<del>ISO/MP</del>		<del>In effect in US, January 1, 2017 (all requirements, except R5) R5 in effect April 1, 2017</del>		
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		
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						
CIP-011-3	Cyber Security - Information Protection			Filed with FERC		
CIP-012-1	Cyber Security – Communications between Control Centers			Filed with FERC September 18, 2018		
MOD-001-2	Available Transmission System Capability			Filed with FERC, February 10, 2014		
PER-003-2	Personnel Credentials			Filed with FERC July 23, 2018		
PRC-004-WECC-2	Protection System and Remedial Action Scheme Misoperation			Filed with FERC March 9, 2018 for retirement		
<del>TPL-001-AB-5</del>	<del>Transmission System Planning Performance Requirements</del>	<del>ISO</del>		<del>Filed with FERC December</del>		
TPL-007-2	Transmission System Planned Performance for Geomagnetic Disturbance Events			Filed with FERC, January 22, 2018		
10. Standards Approved by NERC and Awaiting Filing with FERC						
<del>TPL-001-AB-5</del>	<del>Transmission System Planning Performance Requirements</del>	<del>ISO</del>		<del>NERC BOT Approved,</del>	Status	

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.

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

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