

Alberta Reliability Standards Program Work Plan

Update: September 2018  
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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. Approved by AUC						
INT-006-AB-4	Response to Interchange Authority	ISO		N/A	April 3 2018	October 1, 2018
INT-009-AB-2.1	Implementation of Interchange	ISO		N/A	April 3 2018	October 1, 2018
INT-010-AB-2.1	Interchange Initiation of Modification for Reliability	ISO		N/A	April 3 2018	October 1, 2018
INT-001-AB-3	Interchange Information	ISO		N/A - Recommend Retirement of Standard	April 3 2018	October 1, 2018
INT-003-AB-2	Interchange Transaction Implementation	ISO		N/A - Recommend Retirement of Standard	April 3 2018	October 1, 2018
INT-005-3	Interchange Authority Distributes Arranged Interchange	ISO		N/A - Recommend Retirement of Standard	April 3 2018	October 1, 2018
INT-007-1	Interchange Confirmation	ISO		N/A - Recommend Retirement of Standard	April 3 2018	October 1, 2018
INT-008-3	Interchange Authority Distributes Status	ISO		N/A - Recommend Retirement of Standard	April 3 2018	October 1, 2018
INT-004-2	Dynamic Interchange Transaction Modifications;	ISO		N/A - Recommend Retirement of Standard	April 20 2018	October 1, 2018
INT-011-1	Intra-Balancing Authority Transaction Identification	ISO		N/A - Recommend Retirement of Standard	April 20 2018	October 1, 2018
<del>MOD-031-AB-2</del>	<del>Demand and Energy Data</del>	<del>ISO</del>		<del>N/A</del>	<del>April 26, 2018</del>	<del>August 1, 2018</del>
<del>MOD-016-AB-1.1</del>	<del>Documentation of Data Reporting Requirements for Actual and Forecast Demands, and Net Energy for Load</del>	<del>ISO</del>		<del>N/A – Recommend Retirement of Standard</del>	<del>April 26 2018</del>	<del>August 1, 2018</del>
<del>MOD-017-AB-0.1</del>	<del>Aggregated Actual and Forecast Demands and Net Energy for Load</del>	<del>ISO</del>		<del>N/A – Recommend Retirement of Standard</del>	<del>April 26 2018</del>	<del>August 1, 2018</del>
<del>MOD-018-AB-0</del>	<del>Reports of Actual and Forecast Demand Data</del>	<del>ISO</del>		<del>N/A – Recommend Retirement of Standard</del>	<del>April 26 2018</del>	<del>August 1, 2018</del>
PRC-005-AB-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance	MP		Feb 15, 2018 - Mar 15, 2018	Q3-2018-July 24, 2018	See implementation plan set out in Appendix 5
<del>MOD-019-AB-0</del>	<del>Forecasts of Interruptible Demands Data</del>	<del>ISO</del>		<del>N/A – Recommend Retirement of Standard</del>	<del>April 26 2018</del>	<del>August 1, 2018</del>
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-006-AB-1	Inadvertant Interchange	ISO		N/A - Recommend Retirement of Standard	July 12, 2018	July 1, 2019
BAL-005-AB-1	Balancing Authority Control	ISO		N/A	July 12, 2018	July 1, 2019
2. Forwarded to the AUC						
<del>BAL-001-AB-2</del>	<del>Real Power Balancing Control Performance</del>	<del>ISO</del>		<del>N/A</del>	<del>July 12, 2018</del>	<del>July 1, 2019</del>
<del>BAL-003-AB-1.1</del>	<del>Frequency Response</del>	<del>ISO</del>		<del>N/A</del>	<del>July 12, 2018</del>	<del>July 1, 2019</del>
<del>BAL-006-AB-1</del>	<del>Inadvertant Interchange</del>	<del>ISO</del>		<del>N/A – Recommend Retirement of Standard</del>	<del>July 12, 2018</del>	<del>July 1, 2019</del>
<del>BAL-005-AB-1</del>	<del>Balancing Authority Control</del>	<del>ISO</del>		<del>N/A</del>	<del>July 12, 2018</del>	<del>July 1, 2019</del>
PRC-017-1	Remedial Action Scheme Maintenance and Testing	N/A		N/A	Q3-2018 Aug 31, 2018	TBD
PRC-008-0	Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program	N/A		N/A	Q3-2018 Aug 31, 2018	TBD
PRC-011-0	Undervoltage Load Shedding System Maintenance and Testing	N/A		N/A	Q3-2018 Aug 31, 2018	TBD
PRC-019-AB-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	MP		June 21, 2018 - July 12, 2018	<del>Aug 28, 2018</del> Aug 31, 2018	TBD
CIP-014-AB-2	Physical Security	ISO/MP	Section 501.2 of the ISO rules	May 31, 2018 - Jun 15, 2018	July 18, 2018	The first day of the calendar quarter that follows six full calendar quarters after approval by the Commission.

NERC and WECC Standards		Applicability <sup>1</sup>	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date <sup>2</sup>
<b>3. Under Development</b>						
PRC-025-AB-2	Generator Relay Loadability	MP	Section 502.5 of the ISO rules	Q3-Q4-2018	Q3 Q4 2018	The first day of the calendar quarter that follows twenty full calendar quarters after approval by the Commission
PRC-023-AB-4	Transmission Relay Loadability	MP		Q3 Q4 2018	Q3 Q4 2018	The first day of the calendar quarter following one full calendar quarter after approval by the Commission
PRC-004-AB2-1	Analysis and Mitigation of Transmission and Generation Protection System Misoperation	ISO/MP		July 19, 2018 - Aug 3, 2018	Q3 Q4 2018	The first day of the calendar quarter following one full calendar quarter after approval by the Commission
BAL-002-AB-2(i)	Disturbance Control Standard - Contingency Reserve for Recovery from a Balancing Contingency Event	ISO		TBD	TBD	TBD
BAL-002-WECC-AB-2a	Contingency Reserve	ISO		TBD	TBD	TBD
BES Definition	bulk electric system	ISO/MP N/A		Q3 Q4 2018	Q3 Q4 2018	TBD
PRC-017-1	Remedial Action Scheme Maintenance and Testing	N/A-		N/A	Q3-2018	TBD
PRC-008-0	Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program	N/A-		N/A	Q3-2018	TBD
PRC-011-0	Undervoltage Load Shedding System Maintenance and Testing	N/A-		N/A	Q3-2018	TBD
GIP-014-AB-2	Physical Security	ISO/MP	Section 501.2 of the ISO rules	May 31, 2018 – Jun 15, 2018	Jul-18	TBD
COM-001-AB-3	Communications	N/A	Section 502.17 of the ISO rules	Q3 Q4 2018	Q3 Q4 2018	TBD
COM-002-AB-4	Operating Personnel Communications Protocols	ISO/MP		Q3 Q4 2018	Q3 Q4 2018	TBD
EOP-011-AB-1	Emergency Operations	ISO/MP	Section 202.2 and 305.1 of the ISO rules	Q4 2018	Q4 2018	TBD
EOP-001-AB1-2.1b	Emergency Operations Planning	ISO/MP		Q4 2018 - Recommend Retirement of Standard	Q3 2018	TBD
EOP-002-AB1-2	Capacity and Energy Emergencies	ISO/MP		Q4 2018 - Recommend Retirement of Standard	Q3 2018	TBD
EOP-003-AB1-1	Load Shedding Plans	ISO/MP		Q4 2018 - Recommend Retirement of Standard	Q3 2018	TBD
TPL-001-AB-4	Transmission System Planning Performance Requirements	ISO		Q4 2018	Q4 2018	TBD
TPL-002-AB1-0	System Performance Following Loss of a Single BES Element	ISO		Q4 2018 - Recommend Retirement of Standard	Q4 2018	TBD
TPL-003-AB-0	System Performance Following Loss of Two or More BES Elements	ISO		Q4 2018 - Recommend Retirement of Standard	Q4 2018	TBD
TPL-004-AB-0	System Performance Following Extreme BES Events	ISO		Q4 2018 - Recommend Retirement of Standard	Q4 2018	TBD
PRC-019-AB-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	MP		June 21, 2018 – July 12, 2018	-Aug 28, 2018	TBD
PRC-026-AB-1	Relay Performance During Stable Power Swings	ISO/MP		Q4 2018	Q4 2018	TBD
PRC-027-AB-1	Coordination of Protection Systems for Performance During Faults	MP		Q4 2018	Q1 2019	TBD
PRC-002-AB-2	Disturbance Control Performance	ISO/MP		September 19, 2018	Q4 2018	TBD
PRC-006-AB-3	Automatic Underfrequency load shedding	ISO/MP	OPP 804	Q4 2018	Q4 2018	TBD
MOD-026-1	Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control	N/A	502.5 and 502.6	N/A	July 26, 2018-Q3 2018	Upon approval by the Commission
MOD-027-1	Verification of Models and Data for Turbine/Governor and Load Ctrl	ISO/MP		TBD	TBD	TBD
<b>4. Development Pending</b>						
PRC-004-WECC-2	Protection System and Remedial Action Scheme Misoperation	MP		TBD	TBD	TBD
BAL-002-2(i)-	Disturbance Control Standard – Contingency Reserve for Recovery from a Balancing Contingency Event	ISO		TBD	TBD	TBD
BAL-002-WECC-2a	Contingency Reserve	ISO		TBD	TBD	TBD
PRC-027-1	Coordination of Protection Systems for Performance During Faults	MP		TBD	TBD	TBD
<b>5. First Version to be Adopted in Alberta - FERC Approved</b>				<b>Status</b>		
EOP-010-1	Geomagnetic Disturbance Operations			In effect in US, April 1, 2015; R5 in effect on April 1, 2017		
FAC-013-2	Assessment of Transfer Capability for the Near-term Transmission Planning Horizon			FERC approved November 11, 2011		
IRO-017-1	Outage Coordination			In effect in US, April 1, 2017		

NERC and WECC Standards		Applicability <sup>1</sup>	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date <sup>2</sup>
MOD-008-1	Transmission Reliability Margin Calculation Methodology				In effect in US, June 18, 2007	
MOD-029-2a	Rated System Path Methodology				In effect in US, July 1, 2014	
MOD-032-1	Data for Power System Modeling and Analysis				In effect in US, July 1, 2015	
MOD-033-1	Steady-State and Dynamic System Model Validation				In effect in US, July 1, 2017	
PER-006-1	Specific Training for Personnel				In effect in the US, October 1, 2020	
PRC-015-1	Special Protection System Data and Documentation				In effect in the US, April 1, 2017	
PRC-016-1	Remedial Action Scheme Misoperations				In effect in the US, April 1, 2017	
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings				In effect in the US, July 1, 2016	
TOP-002-4	Operation Planning				In effect in US, April 1, 2017	
TOP-003-3	Operational Reliability Data			In effect in US, January 1, 2017 (all requirements, except R5) R5 in effect April 1, 2017		
TOP-004-2	Transmission Operations				In effect in US, January 1, 2009	
TOP-008-1	Response to Transmission Limit Violations				In effect in US, June 18, 2007	
<b>6. New Versions of Adopted Standards - FERC Approved</b>					<b>Status</b>	
BAL-005-1	Balancing Authority Control				In effect in the US January 1 2019	
BAL-004-WECC-3	Automatic Time Error Correction				FERC Approved May 30, 2018	
CIP-003-7	Security Management Controls				FERC approved, April 19, 2018	
CIP-004-6	Cyber Security - Personnel and Training			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)			FERC approved January 18, 2018		
CIP-006-6	Cyber Security - Physical Security of BES Cyber Systems			In effect in US, July 1, 2016 (R3.1 in effect July 1, 2017)		
CIP-007-6	Cyber Security - System Security Management			In effect in US, July 1, 2016		
CIP-009-6	Cyber Security - Recovery Plans for BES Cyber Systems			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			FERC approved January 18, 2018		
CIP-011-2	Cyber Security - Information Protection			In effect in US, July 1, 2016		
CIP-013-1	Cyber Security – Supply Chain Risk Management			FERC approved January 18, 2018		
EOP-001-2.1b	Emergency Operations Planning			In effect in US, July 1, 2013		
EOP-002-3.1	Capacity and Energy Emergencies			In effect in US, September 13, 2012		
EOP-003-2	Load Shedding Plans			In effect in US, October 1, 2013		
EOP-004-4	Event Reporting			In effect in US, April 1, 2019		
EOP-005-3	System Restoration from Blackstart Resources			In effect in US, April 1, 2019		
EOP-006-3	System Restoration Coordination			In effect in US, April 1, 2019		
EOP-008-2	Loss of Control Center Functionality			In effect in US, April 1, 2019		
FAC-001-3	Facility Interconnection Requirements			In effect in the US January 1 2019		
FAC-002-2	Facility Interconnection Studies			In effect in US, January 1, 2016		
FAC-003-4	Transmission Vegetation Management			In effect in US, October 1, 2016		
FAC-010-3	System Operating Limits Methodology for the Planning Horizon			In effect in the US, April 1, 2017		
FAC-011-3	System Operating Limits Methodology for the Operations Horizon			In effect in the US, April 1, 2017		
FAC-501-WECC-2	Transmission Maintenance			FERC Approved May 30, 2018		
IRO-001-4	Reliability Coordination - Responsibilities			In effect in US, April 1, 2017		
IRO-002-5	Reliability Coordination - Monitoring and Analysis			In effect in US, October 1, 2017		
IRO-008-2	Reliability Coordinator Operational Analyses and Real-time Assessments			In effect in US, April 1, 2017		
IRO-009-2	Reliability Coordinator Actions to Operate within IROLs			In effect in US, January 1, 2016		
IRO-010-2	Reliability Coordinator Data Specification and Collection			R1, R2, in effect in US, January 1, 2017. R3 in effect April 1, 2017		
IRO-014-3	Coordination Among Reliability Coordinators			In effect in US, April 1, 2017		
IRO-018-1(i)	Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities			In effect in the US April 1 2018		
MOD-019-0.1	Reporting of Interruptible Demands and Direct Control Load Management			FERC Approved, May 13, 2009		
PRC-004-5(i)	Protection System Misoperation Identification and Correction			In effect in US, April 2, 2017		
PRC-010-1	Undervoltage Load Shedding			In effect in US, April 2, 2017		
PRC-012-2	Remedial Action Schemes			In effect in the US January 1 2021		
PRC-025-2	Generator Relay Loadability			FERC Approved May 2, 2018		
TOP-001-4	Transmission Operations			In effect in the US July 1 2018		
TOP-010-1(i)	Real-time Reliability Monitoring and Analysis Capabilities			In effect in the US April 1 2018		
VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules			In effect in US, September 26, 2017		

NERC and WECC Standards		Applicability <sup>1</sup>	Related ISO Rules	Stakeholder Consultation	Forward to the AUC	Forecast Effective Date <sup>2</sup>
VAR-501-WECC-3.1	Power System Stabilizer			In effect in US, September 26, 2017		
<b>7. New Versions of Adopted/<del>New</del> Standards Filed with FERC</b>				<b>Status</b>		
BAL-002-3	Disturbance Control Standard – Contingency Reserve for Recovery from a Balancing Contingency Event			Filed with FERC August 17, 2018		
IRO-002-5	Reliability Coordination – Monitoring and Analysis			Filed with FERC March 6 2017		
IRO-005-4	Reliability Coordination – Current Day Operations			Filed with FERC, April 16, 2013		
IRO-009-2	Reliability Coordinator Actions to Operate within IROLs			Filed with FERC, September 16, 2015		
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		
TPL-007-2	Transmission System Planned Performance for Geomagnetic Disturbance Events			Filed with FERC, January 22, 2018		
<del>TOP-006-3</del>	<del>Monitoring System Conditions</del>			<del>Filed with FERC April 4, 2013</del>		
VAR-001-4.2	Voltage and Reactive Control			Filed with FERC, August 18, 2017		
<del>VAR-002-4.1</del>	<del>Generator Operation for Maintaining Network Voltage Schedules</del>			<del>Filed with FERC, August 18, 2017</del>		
VAR-002-WECC-2	Automatic Voltage Regulators			Filed with FERC, March 7, 2018 for retirement		
VAR-501-WECC-3.1	Power System Stabilizer			Filed with FERC August 18 2017		
<b>8. New Versions of Adopted/<del>New</del> Standards Approved by NERC BOT</b>				<b>Status</b>		
CIP-012-1	Cyber Security – Communications between Control Centers			NERC BOT Approved, August 16, 2018		
VAR-001-5	Voltage and Reactive Control			NERC BOT Approved, August 16, 2018		
<b>9. Projects to be Confirmed N/A in Alberta – FERC Approved</b>				<b>Status</b>		

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, consultation with market participants to address the foregoing is not required.

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.