



Activities Related to NERC/WECC Reliability Standards Report to April 17, 2008

Click on a Standard Activity to get information on recent developments.

Developer	Standard Activities	Name/Description	Purpose	Status	Due Date
NERC	FAC-010-2 FAC-011-2 FAC-014-2	Facility Ratings	Draft SAR Version 2	Comment period	Apr. 29, 2008
NERC	IRO-006-4	Reliability Coordination - TLR	Reference Manual	Comment period ended	Mar. 29, 2008
NERC	PER-005-1	System Personnel Training	3 rd Draft Proposed Standard	Comment period ended	Apr. 9, 2008
NERC	TPL-002-0 TPL-003-0	System Performance	Request for Interpretation	Pre-Ballot Review	April 23, 2008
NERC	CIP-002-1 to 009-1	Cyber Security	Draft SAR Version 1	Comment Period	April 19, 2008
NERC	IRO-008-1 IRO-009-1 IRO-010-1	Operate Within Interconnection Reliability Operating Limits	9 th Draft Proposed Standards	Comment Period	April 25, 2008
NERC	EOP-005-2 EOP-006-2	System Restoration and Blackstart	3 rd Draft Revised Standards	Comment Period	May 29, 2008
WECC	FAC-501-WECC-1	Transmission Maintenance	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	VAR-002-WECC-1	Automatic Voltage Regulators	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	VAR-501-WECC-1	Power System Stabilizer	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	BAL-002-WECC-1	Contingency Reserves	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	TOP-007-WECC-1	System Operating Limits	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	IRO-006-WECC-1	Qualified Transfer Path Unscheduled Flow Relief	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	PRC-004-WECC-1	Protection System and Remedial Action Scheme Misoperation	2 nd Draft Revised Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008

Developer	Standard Activities	Name/Description	Purpose	Status	Due Date
WECC	INT-BPS-001-2	Tagging Protocols	Draft Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	INT-BPS-009-1	Capacity Tag Functionality	Draft Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	INT-BPS-011-1	Ten Minute Recallable E-Tag Functionality For Reserves	Draft Standard	Approved by Operating Committee	BOD approval Apr. 16, 2008
WECC	PRC-024-WECC-1-CR	Generator Low Voltage Ride-Through Criterion	Draft Standard	Posted for comment	Apr. 7, 2008

NERC Standards Development page is on-line at:

http://www.nerc.com/~filez/standards/Reliability_Standards_Under_Development.html

WECC Standards Development page is on-line at:

<http://www.wecc.biz/index.php?module=pnForum&func=viewforum&forum=1>

NERC Reliability Standards

FAC-010-2 - System Operating Limits Methodology for the Planning Horizon,
FAC-011-2 - System Operating Limits Methodology for the Operations Horizon
FAC-014-2 - Establish and Communicate System Operating Limits

Purpose: Draft SAR, Version 2 posted for comment.

Current Standard:

FERC has requested that some terms used in the standards be further clarified.

Proposed Standard:

FERC Order 705, the Commission directed NERC to make the following modifications:

- FAC-011-1 Requirement R2.3.2 — eliminate the phrase, “load greater than studied”
- Replace levels of non-compliance with Violation Security Levels

In addition, the Commission remanded the definition of “Cascading Outage” and this term should be withdrawn from the NERC Glossary of Reliability Terms.

Applicability: Planning Authority, Reliability Coordinator, Transmission Planner, Transmission Operator

Current Status:

Posted for comment until April 29, 2008.

IRO-006-4 - Reliability Coordination — Transmission Loading Relief (TLR) Reference Manual for the Eastern Interconnection

Purpose: Reference Manual posted for comment until Mar. 29, 2008.

Current Standard:

Reliability Standard IRO-006-4 provides interconnection-wide transmission loading relief (TLR) procedures that can be used to prevent or manage potential or actual SOL and IROL violations. The requirements in IRO-006-4 only address the reliability-related aspects of transmission loading relief — the business-related aspects of transmission loading relief are addressed in NAESB’s TLR Business Practices for the Eastern Interconnection.

Proposed Standard:

The Joint NERC/NAESB System Operator's TLR Reference Manual provides a single reference that consolidates the TLR requirements of the NERC reliability standard and the NAESB business practice into a single reference document.

NERC and NAESB are soliciting comments on the manual in an effort to ensure it meets industry needs and is as complete and accurate as possible. The intent is to submit the final version of the manual to the Standards Committee for its approval. If approved by the Standards Committee, the reference manual will be posted as a "Supporting Document," with a link to reliability standard IRO-006-4 — Reliability Coordination – Transmission Loading Relief.

Applicability: Eastern Reliability Coordinators, Transmission Operators and Balancing Authorities

Current Status: Comment period ended Mar. 29, 2008.

The AESO did not submit comments.

PER-005-1 – System Personnel Training

Purpose: Proposed Standard posted for comment.

Current Standard:

PER-005-1 will replace PER-002-0 and parts of PER-004-1.

Proposed Standard:

A training standard is required to set the minimum acceptable requirements for the development, implementation and maintenance of initial and continuing System Personnel Training programs. This standard is needed to help insure that system personnel throughout the industry are provided with an adequate amount of training in order to promote the reliability and adequacy of the North American Interconnections and their bulk electrical systems.

Applicability: Reliability Coordinator, Balancing Authority and Transmission Operator.

Current Status: Comment period ended April 9, 2008.

TPL-002-0 - System Performance Following Loss of a Single BES Element

TPL-003-0 - System Performance Following Loss of Two or More BES Elements

Purpose: Request for Interpretation posted for pre-ballot review.

Standard:

Ameren and MISO submitted Requests for an Interpretation of Requirements R1.3.2 and R1.3.12 in both TPL-002-0 — System Performance Following the Loss of a Single Bulk Electric System Element and TPL-003-0 — System Performance Following Loss of Two or More Bulk Electric System Elements.

The Planning Committee (drafting team) provided an interpretation that underwent an initial ballot from December 4–13, 2007. While the initial ballot achieved a quorum (86.70%) and a high affirmative vote (88.10%), some comments submitted with ballots indicated that the interpretation didn't fully address the questions asked, and the drafting team added some clarifying language to the interpretation. The drafting team's revised interpretation is posted for a new 30-day pre-ballot review.

Details of the interpretations can be seen at: http://www.nerc.com/~filez/standards/TPL-002and003_Ameren_Interpretation_2007-24.html and http://www.nerc.com/~filez/standards/TPL-002and003_MISO_Interpretation_2007-26.html.

Ballot Pool:

Eligible entities may join the ballot pool at: <https://standards.nerc.net/BallotPool.aspx>

Applicability: Planning Authority, Transmission Planner

Current Status: Posted for pre-ballot review until April 23, 2008, at which time a 10 day ballot period will commence.

CIP-002-1 to 009-1 – Cyber Security

Purpose: Draft SAR, Version 1 posted for comment.

Current Standard:

The current standards were approved last year and came into effect on April 1, 2008, however FERC requested modifications to the standards in their Order 706.

Proposed Standard:

This set of revisions will implement the modifications directed by FERC, in their Order 706, to the approved Cyber Security Standards CIP-002-1 through CIP-009-1. Refer to <http://www.ferc.gov/whats-new/comm-meet/2008/011708/E-2.pdf> for the complete text of the final order. Specific requirements from the Order will be identified during the SAR and/or Standards Drafting process.

In addition, the drafting team will modify the standards so they conform to the latest approved versions of the Reliability Standards Development Procedure and the ERO Rules of Procedure.

Applicability: Reliability Coordinator, Balancing Authority, Interchange Authority, Transmission Service Provider, Transmission Owner, Transmission Operator, Generator Owner, Generator Operator, Load Serving Entity, NERC, Regional Reliability Organizations

Current Status: Posted for comment until April 19, 2008.

IRO-008-1 - Reliability Coordinator Operational Analyses and Real-time Assessments

IRO-009-1 - Reliability Coordinator Actions to Operate Within IROLs

IRO-010-1 - Reliability Coordinator Data Specification and Collection

Purpose: Version 1 Standards, Draft 9 posted for comment.

Current Standards:

These three standards are new standards, not revisions to Version 0 standards. These standards do, however address some of the same topics as addressed in some of the Version 0 standards.

The ballot for each of the IROL standards includes the retirement of associated requirements from some already approved standards and effective dates identified in this implementation plan. The effected Standards are EOP-001, IRO-002, IRO-004, IRO-005, TOP-003, TOP-005 and TOP-006.

Proposed Standards:

The drafting team has made some modifications to standards IRO-008-1 through IRO-010-1 to bring them into conformance with the latest version of the ERO Rules of Procedure and has posted draft 9 and the associated implementation plan for a 30-day comment period.

The purpose of these standards is to prevent instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.

Applicability: Reliability Coordinator, Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-Serving Entity, Transmission Operator, Transmission Owner.

Current Status: Posted for comment until April 25, 2008.

EOP-005-2 - System Restoration Plans

EOP-006-2 - Reliability Coordination - System Restoration

Purpose: Third Draft of revised Standards posted for comment.

Current Standards:

The existing approved Standards are EOP-005-1, EOP-006-1, EOP-007-1 and EOP-009-1.

Proposed Standards:

The proposed standards will merge EOP-007 and EOP-009 into EOP-005 and EOP-006. They include many significant changes, including re-assignment of requirements that had been assigned to the Regional Reliability Organization, identification of the specific elements that must be contained in a system restoration plan, and the introduction of a new term “blackstart resource” along with a recommendation to retire the term “blackstart capability plan.”

The latest drafts of the standards include revisions to the titles and purpose statements, revisions to several requirements and measures, and the addition of all compliance elements.

Applicability: Reliability Coordinators, Transmission Operators, Generator Operators.

Current Status: Posted for comment until May 29, 2008.

WECC Reliability Standards

FAC-501-WECC-1 – Transmission Maintenance

Purpose: Second Draft of Standard, comment period complete.

Current Standard:

PRC-STD-005-1

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for PRC-STD-005-1. In response to comments, the drafting team changed name of the standard from PRC-005-WECC-1 to FAC-501-WECC-1 to better align with the NERC numbering system. FAC-501-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when PRC-STD-005-1 was approved as a NERC reliability standard. This is the second posting of this standard for comment.

Applicability: Transmission Owners

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

We would like to see the term "Compliance Enforcement Authority", in section D 1.1, defined within the standard. The acronym used in D 1.1 (CEA) is defined on the WECC website in the Glossary/Acronyms link as the Canadian Electricity Association.

Pending clarification of the term noted above the AESO has no concerns on the requirements but would like to emphasize that although Path 1 is included in the list, the standard is not enforceable in Alberta until it has received Regulatory Approval here.

VAR-002-WECC-1 – Automatic Voltage Regulators

Purpose: Second Draft of Standard, comment period complete.

Current Standard:

VAR-STD-002a-1

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for VAR-STD-002a-1. VAR-002-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when VAR-STD-002a-1 was approved as a NERC reliability standard.

In the Western Interconnection, System Operating Limits for transmission paths in the Bulk Electric System assume that Automatic Voltage Regulators are in service to control voltage to support the transfer capability. The requirements in VAR-002-WECC-1 are to ensure that the generator provides the proper voltage support when generation and transmission outages occur.

Applicability: Generator Operators, Transmission Operators

Standard only applies to synchronous generators and synchronous condensers that are connected to the interconnected transmission system.

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

The AESO currently reports AVR data to the WECC on behalf of all Generator Operators in Alberta, instead of each GOP reporting individually.

It may be worthwhile to review how and if R1.1 fit in the overall R1 requirement together with the other listed "exceptions". It would seem logical, and R1 does seem to imply that, if a generator was operated for less than 5% of time in a calendar quarter, then the generator (versus the time period when AVR was not in service) is to be excluded from the 98% requirement. However, the wording in R1 doesn't quite say that literally. Please review and revise as required.

VAR-501-WECC-1 – Power System Stabilizer

Purpose: Second Draft of Standard, comment period complete.

Current Standard:

VAR-STD-002b-1

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for VAR-STD-002b-1. VAR-501-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when VAR-STD-002b-1 was approved as a NERC reliability standard.

In the Western Interconnection, System Operating Limits for transmission paths in the Bulk Electric System assume that Power System Stabilizers are in service to enhance system damping. The requirements in VAR-501-WECC-1 are to ensure that the generator provides the proper damping to maintain system stability when generation and transmission outages occur.

Applicability: Generator Operators

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

The AESO currently reports PSS data to the WECC on behalf of all Generator Operators in Alberta, instead of each GOP reporting individually.

It may be worthwhile to review how and if R1.1 fit in the overall R1 requirement together with the other listed "exceptions". It would seem logical, and R1 does seem to imply that, if a generator was operated for less than 5% of time in a calendar quarter, then the generator (versus the time period when PSS was not in

service) is to be excluded from the 98% requirement. However, the wording in R1 doesn't quite say that literally. Please review and revise as required.

BAL-002-WECC-1 - Contingency Reserves

Purpose: Second Draft of Standard, comment period complete..

Current Standard:

BAL-STD-002-0

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for BAL-STD-002-0. BAL-002-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when BAL-STD-002-0 was approved as a NERC reliability standard. The drafting team implemented in the standard additional refinements to address concerns as explained in the document titled, "WECC Standard BAL-002-WECC-1 Contingency Reserves." To assist in understanding the refinements made to the standard, the drafting team has developed a document that compares BAL-002-WECC-1, the permanent replacement standard, with the existing BAL-STD-002-0.

Applicability: Balancing Authority, Reserve Sharing Group

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

It is not clear in R3 whether some of the listed type of services can be used to meet the spinning reserve requirement in R2. For example, if spinning reserve is contracted from an external source to the BA area, it should contribute to the meeting of the spinning requirement in R2. And, if an energy or capacity emergency alert has been issued for the BA, then load can be used to meet the CR requirement in R1 as well as the spinning reserve requirement in R2.

TOP-007-WECC-1 - System Operating Limits

Purpose: Second Draft of Standard, comment period complete.

Current Standard:

TOP-STD-007-0

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for TOP-STD-007-0. TOP-007-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when TOP-STD-007-0 was approved as a NERC reliability standard.

This draft standard incorporates the following refinements to the first draft of TOP-007-WECC-1 in response to comments received during the first comment period that ended November 5, 2007.

Refine R1 to remove the requirement to return a path to within its limit in 20 minute for SOLs based upon Transient Stability and Voltage Stability. Refine R2 to limit the compliance period for the Net Scheduled Interchange to the real-time schedules for the next hour. Change M2 based upon the refinements to R2. Base the violation severity levels for R2 upon magnitude.

Applicability: Transmission Operators

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

The AESO is still of the opinion that SOL, by definition, defines how much power can be transferred over a transmission path while meeting system reliability criteria. It is the actual power transfer that should be monitored, not the scheduled power transfer. To apply SOL in a scheduling application does not seem to make sense for the proper application of SOL.

IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

Purpose: Second Draft of Standard, comment period complete.

Current Standard:

IRO-STD-006-0

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for IRO-STD-006-0. IRO-006-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when IRO-STD-006-0 was approved as a NERC reliability standard. The standard addresses mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths.

Applicability: Balancing Authorities, Reliability Coordinators

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

The AESO did not comment on this standard.

PRC-004-WECC-1 – Protection System and Remedial Action Scheme Misoperation

Purpose: Second Draft of Standard, comment period complete.

Current Standard:

PRC-STD-001-1 and PRC-STD-003-1

Proposed Standard:

The purpose of this standard is to create a permanent replacement standard for PRC-STD-001-1 and PRC-STD-003-1. PRC-004-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when PRC-STD-001-1 and PRC-STD-003-1 were approved as NERC reliability standards. The new standard addresses the following areas:

1. Requirements for investigating operations to check for Misoperations.
2. Mitigation requirements after security-based Misoperations for redundant or non-redundant Protection Systems or Remedial Action Schemes.
3. Mitigation requirements after dependability-based Misoperations that do not adversely affect the reliability of the Bulk Electric System.

Several significant changes were made to PRC-STD-001 and PRC-STD-003 and they are itemized here:

1. PRC-STD-003 was renumbered to PRC-004-WECC-1. This makes both the PRC-004 and the Regional PRC-004-WECC-1 standards applicable to similar entities. PRC-003 is applicable to the RRO.
2. Standard PRC-STD-001 will be retracted because the requirements are covered by other standards per description below:

PRC-STD-001 requirements B-WR1-a,b,c are covered under PRC-001

PRC-STD-001 requirement B-WR1-d is covered in the this standard PRC-004-WECC-1

PRC-STD-001 requirement B-WR1-e is covered under TOP-005-1

Applicability: Transmission Owners, Generator Owners, Transmission Operators

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

The reporting schemes for Alberta Transmission Owners and Generation Owners to the WECC are under review in Alberta and future changes may be necessary.

The RAS scheme for Path 1 pertaining to curtailment of generation north of SOK should be reviewed for accuracy.

There seems to be a discrepancy between the wording in R1.1 and M1.1 where one refers to "within 24 hours" and the other "within one business day".

INT-BPS-001-2 - Tagging Protocols

Purpose: Draft Standard, comment period complete.

Current Standard:

WECC Business Practices #1, #3, #4, #6, #7, #8, and #9 – combined

Proposed Standard:

Will identify electronic tagging protocols which are not explicitly addressed in NERC Reliability Standards or NAESB Business Practice Standards, but which are considered necessary for transactions sinking within the Western Interconnection.

Applicability: Balancing Authorities, Transmission Service Providers, Purchasing-Selling Entities

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

WR1. - Even though this is not a proposed change, the AESO is concerned that the current wording is too restrictive in defining when an etag may be denied. The AESO applies certain validation tests when determining whether an etag is to be approved or denied. One of these tests is checking whether the PSE is a registered market participant with the AESO, as required by our Market Rules.

WR2.1. - Some clarification in wording may be required to indicate that the Approval Entity, who has denied an etag without proper justification, will arrange for a replacement etag to be created and submitted and communicate with all Approval Entities on the replacement etag.

We also recommend that the effective date for the change be revised to a certain time period (e.g. 1 month, 3 months, 6 months) after the next BOT meeting. It is reasonable to expect that once the BOT approves the proposed changes, a WECC notification will then be posted for the industry stakeholders, and a reasonable time period should be allowed before the standard begins to take effect, rather than on the same day as the BOT meeting.

INT-BPS-009-1 - Capacity Tag Functionality

Purpose: Draft Standard, comment period complete.

Current Standard:

None

Proposed Standard:

Will define the functionality of a Transaction Type Capacity tag, utilize e-tags as a placeholder for reserve transactions, improve efficiencies in the current e-tagging environment, and increase usage of e-tags as the primary method of notification. A capacity e-tag under this business practice is intended for use with On-Demand Spinning and Non-spinning Obligation/Resources products only.

Applicability: Balancing Authorities, Interchange Authority, Transmission Service Providers, Generator Operator, Purchasing-Selling Entities, Load-Serving Entity

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

We recommend that the effective date for the change be revised to a certain time period (e.g. 1 month, 3 months, 6 months) after the next BOT meeting. It is reasonable to expect that once the BOT approves the proposed changes, a WECC notification will then be posted for the industry stakeholders, and a reasonable time period should be allowed before the standard begins to take effect, rather than on the same day as the BOT meeting. The time period should take into account any requirement on tool/IT/system changes and operator training.

INT-BPS-011-1 - Ten Minute Recallable E-Tag Functionality For Reserves

Purpose: Draft Standard, comment period complete.

Current Standard:

None

Proposed Standard:

Will utilize the e-tag tool as a means to identify 10 Minute Recallable Energy for Reserve products to all associated entities of the transaction and defines the use of 10 Minute Recallable Energy for Reserves as both an energy product and a reserve product.

Applicability: Balancing Authorities, Interchange Authority, Transmission Service Providers, Generator Operator, Purchasing-Selling Entities, Generation Providing Entity

Current Status:

The WECC Operating Committee approved the new Standard on March 6. The standard will go to the WECC Board of Directors for approval at their April 16 meeting.

AESO Submitted Comments:

The Alberta Electric System Operator has no comment on the proposed changes but wishes to indicate that this business practice is not applicable to Alberta as our Market Rules currently do not allow for recallable energy.

PRC-024-WECC-1-CR - Generator Low Voltage Ride-Through Criterion

Purpose: Draft Standard, posted for comment.

Current Standard:

WECC LVRT Standard, dated June 17, 2005.

Proposed Standard:

Will ensure that generators will not trip off-line during specified voltage excursions as a result of improper coordination between generator protective relays and generator voltage regulator controls and limit functions (such coordination will include the generating unit's capabilities).

Current Status:

Version one of the Standard had its initial posting for comment until April 7, 2008.

The AESO did not submit comments.

Comments/Questions

If you have any comments or questions about the Reliability Standards listed here or have a comment to submit to NERC or WECC on a Reliability Standard that you would like the AESO to consider, please contact either:

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