



**NERC, WECC and ARC  
Reliability Standards Activities  
Monthly Report – January 2009**

This report gives an overview of the AESO activities dealing with the NERC and WECC standards, business practices and criterion that are posted for review, comment or balloting. The AESO consults with internal subject matter experts, members of the AESO Reliability Committee Working Groups and the Standards Review Committee (SRC) of the ISO/RTO Council when responding to NERC and WECC on the standards. The report also includes a summary of [Alberta Reliability Committee \(ARC\)](#) and its Working Groups activities.

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

| <b>Developer</b> | <b>Standard</b>                    | <b>Name/Description</b>                    | <b>Purpose</b>             | <b>Status</b>               | <b>Due Date</b> |
|------------------|------------------------------------|--|----------------------------|-----------------------------|-----------------|
| NERC             | <a href="#">CIP-002-2 to 009-2</a> | Cyber Security                             | Revised Standards Draft 1  | Comment Period              | Jan. 5, 2009    |
| NERC             | <a href="#">CIP-006-1a</a>         | Physical Security of Critical Cyber Assets | Request for Interpretation | Ballot Period Ended         | Jan. 14, 2009   |
| NERC             | <a href="#">MOD-030-2</a>          | Flowgate Methodology                       | Revised Standard Draft 1   | Recirculation Ballot Period | Jan. 29, 2009   |
| NERC             | <a href="#">New Standard</a>       | Reliability of Protection Systems          | Draft SAR Version 1        | Comment Period              | Feb. 18, 2009   |
| NERC             | <a href="#">EOP-001-0</a>          | Emergency Operations Planning              | Request for Interpretation | Pre-ballot Review           | Feb. 26, 2009   |
| NERC             | <a href="#">FAC-008-2</a>          | Facility Ratings Methodology               | Draft SAR Version 1        | Comment Period              | Mar. 5, 2009    |
| WECC             | <a href="#">BAL-012-WECC-2-CR</a>  | Frequency Responsive Reserve Criterion     | Draft Criterion            | Comment Period              | Feb. 20, 2009   |
| WECC             | <a href="#">New Criterion</a>      | After-the-Fact Regional Criterion          | Draft Criterion            | Comment Period              | Feb. 27, 2009   |

NERC Standards Development page is on-line at:

[http://www.nerc.com/filez/standards/Reliability\\_Standards\\_Under\\_Development.html](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

## **CIP-002-2 to 009-2 – Cyber Security**

Purpose:

Revised Standard, Draft 1 posted for comment

Current Standard:

The current cyber standards are essentially Version 0 standards modified into mandatory reliability standards. FERC Order 706 requires that numerous changes be made to these 8 standards. The new version addresses the FREC Order.

Proposed Standard:

This set of revisions in this project includes:

- Modifying the standards so they conform to the latest approved versions of the ERO Rules of Procedure as outlined in the Standard Review Guidelines identified in Attachment 1.
- Addressing the directives issued by FERC, in Order 706 relative 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 are identified in Attachment 2.
  - Emphasis on Order 706 directive for NERC to address revisions to the CIP standards considering applicable feature of the NIST Security Risk Management Framework among other resources.
- Incorporating clarifications from the Interpretation of CIP-006-1 Requirement 1.1.

Applicability:

Reliability Coordinator, Balancing Authority, Interchange Authority, Transmission Service Provider, Transmission Owner, Transmission Operator, Generator Owner, Generator Operator, Load Serving Entity, NERC and Regional Entity.

Current Status:

The comment period ended January 5, 2009. The AESO submitted comments as a member of the Standards Review Committee of the ISO/RTO Council. The comments are posted on the NERC site at the link below.

NERC Link:

[http://www.nerc.com/filez/standards/Project\\_2008-06\\_Cyber\\_Security.html](http://www.nerc.com/filez/standards/Project_2008-06_Cyber_Security.html)

## **CIP-006-1a - Physical Security of Critical Cyber Assets**

Purpose:

Request for Interpretation.

Standard:

The US Army Corps of Engineers requested an interpretation to clarify requirements for monitoring and logging physical access referenced in Requirement R4.

R4. Logging Physical Access — Logging shall record sufficient information to uniquely identify individuals and the time of access twenty-four hours a day, seven days a week. The Responsible Entity shall implement and document the technical and procedural mechanisms for logging physical entry at all access points to the Physical Security Perimeter(s) using one or more of the following logging methods or their equivalent:

R4.1. Computerized Logging: Electronic logs produced by the Responsible Entity's selected access control and monitoring method.

R4.2. Video Recording: Electronic capture of video images of sufficient quality to determine identity.

R4.3. Manual Logging: A log book or sign-in sheet, or other record of physical access maintained by security or other personnel authorized to control and monitor physical access as specified in Requirement R2.3.

Request and Interpretation:

Q1) For physical access control to cyber assets, does this include monitoring when an individual leaves the controlled access cyber area?

NERC Interpretation: No, monitoring and logging of access are only required for ingress at this time.

Q2) Does the term, “time of access” mean logging when the person entered the facility or does it mean logging the entry/exit time and “length” of time the person had access to the critical asset?

NERC Interpretation: The term “time of access” refers to the time an authorized individual enters the physical security perimeter.

Applicability:

Balancing Authorities, Reliability Coordinators, Load-Serving Entities

Current Status:

The ballot period for the interpretation ended on January 14. The interpretation received 97% approval, however a company with 3 ballots (in 3 different segments) voted negative with comments, which results in a recirculation ballot.

NERC Link:

[http://www.nerc.com/filez/standards/Project2008-15\\_ Interpretation\\_CIP-006-1a\\_US\\_Army\\_COE.html](http://www.nerc.com/filez/standards/Project2008-15_ Interpretation_CIP-006-1a_US_Army_COE.html)

**MOD-030-2 - Flowgate Methodology**

Purpose:

Revised Standard, recirculation ballot.

Current Standard:

MOD-030-1 was recently approved by the NERC ballot pool.

Proposed Standard:

This new version of the standard was developed based on stakeholder comments submitted with the initial ballot of MOD-030-1 conducted July 21–30, 2008. The drafting team’s responses to the comments submitted with the ballots for this standard are posted for stakeholder review. MOD-030-1 will continue through the recirculation ballot process at the same time this new version of the standard goes through the standards development process. As envisioned, the new version of MOD-030-2 will be approved by its ballot pool and filed for regulatory approval before MOD-030-1 becomes effective. Requirements 2 and 11 of MOD-030-1 will be modified.

Applicability:

Transmission Operators and Transmission Service Providers that use the Flowgate Methodology.

The AESO does not use the Flowgate Methodology.

Current Status:

Recirculation ballot period until January 29. The AESO cast an Abstain ballot in the first vote as we do not use the Flowgate methodology. The AESO ballot carries over into the recirculation vote.

NERC Link:

<http://www.nerc.com/filez/standards/MOD-V0-Revision.html>

**Proposed New Standard – Reliability of Protection Systems**

Purpose:

SAR, Version 1, posted for comment.

Current Standard:

The SAR proposes that a new standard be developed.

Proposed Standard:

The proposed standard would require facility owners to have protection system equipment installed such that, if there were a failure to a specified component of that protection system, the failure would not prevent meeting the BES performance identified in the TPL standards. This will likely be a PRC standard.

Applicability:

Transmission Owners, Generation Owners and Distribution Providers

Current Status:

The Draft SAR is posted for comment until February 18.

NERC Link:

[http://www.nerc.com/filez/standards/Project2009-07\\_Reliability\\_of\\_Protection\\_Systems.html](http://www.nerc.com/filez/standards/Project2009-07_Reliability_of_Protection_Systems.html)

**EOP-001-0 - Emergency Operations Planning**

Purpose:

Request for Interpretation

Standard:

The Regional Entity Compliance Managers have submitted a Request for Interpretation of EOP-001-0 Requirement, R1.

Request and Interpretation:

Clarification is needed for Reliability Standard EOP-001-0 Requirement R1 which states:

R1. Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.

Specifically, the Regional Entity Compliance Managers request an interpretation and clarity for the following language listed in EOP 001-0, Requirement 1:

1. What is the definition of emergency assistance in the context of this standard? What scope and time horizons, if any, are considered necessary in this definition?
2. What was intended by using the adjective “adjacent” in Requirement 1? Does “adjacent” Balancing Authorities mean “All” or something else? Is there qualifying criteria to determine if a very small adjacent Balancing Authority area has enough capacity to offer emergency assistance?
3. What is the definition of the word “remote” as stated in the last phrase of Requirement 1? Does remote mean every Balancing Authority who’s area does not physically touch the Balancing Authority attempting to comply with this Requirement?
4. Would a Balancing Authority that participates in a Reserve Sharing Group Agreement, which meets the requirements of Reliability Standard BAL-002-0, Requirement 2, be required to establish additional operating agreements to achieve compliance with Reliability Standard EOP-001-0, Requirement 1?

NERC Interpretation of EOP-001-0 Requirement R1:

1. In the context of this standard, emergency assistance is emergency energy. Emergency energy would normally be arranged for during the current operating day. The agreement should describe the conditions under which the emergency energy will be delivered to the responsible Balancing Authority.

2. The intent is that all Balancing Authorities have emergency energy assistance agreements with at least one Adjacent Balancing Authority and have sufficient emergency energy assistance agreements to mitigate reasonably anticipated energy emergencies. However, the standard does not require emergency energy assistance agreements with all Adjacent Balancing Authorities.
3. A remote Balancing Authority is a Balancing Authority other than an Adjacent Balancing Authority. The responsible Balancing Authority is not required to have arrangements in place to obtain emergency energy assistance with all remote Balancing Authorities. The responsible Balancing Authority's agreement(s) with the Adjacent Balancing Authorities does (do) not preclude the Adjacent Balancing Authority from purchasing emergency energy from remote Balancing Authorities on behalf of the responsible Balancing Authority.
4. A Balancing Authority that is compliant with Reliability Standard BAL-002-0, Requirement R2 through participation in a Reserve Sharing Group Agreement is not required to establish additional operating agreements as described in Requirement R1 of EOP-001-0.

**Applicability:**

Transmission Operators and Balancing Authorities.

**Current Status:**

Posted for Pre-ballot Review and the opportunity to join the ballot pool until February 26.

**NERC Link**

<http://www.nerc.com/filez/standards/EOP-001-0 Interpretation RECM.html>

**FAC-008-2 – Facility Ratings**

**Purpose:**

Draft (SAR), Version 1, posted for comment.

**Current Standard:**

There were two Facility Ratings Standards, FAC-008-1 and FAC-009-1, being modified to address concerns raised by FERC and industry stakeholders. FAC-008-2 was not accepted by the NERC ballot pool due to concerns with one of the requirements, R7.

**Proposed Standard:**

The Facility Ratings Standard is undergoing modifications to address the directives in FERC Order 693. The purpose of the standard is to ensure that Facility Ratings used in the reliable planning and operation of the bulk electric system are determined based on technically sound principles. The Draft SAR proposes removing R7 from FAC-008-2.

**Applicability:**

Transmission Owners, Generation Owners

**Current Status:**

The standard was not accepted by the ballot pool in the recirculation ballot period ended December 19, 2008. The Draft SAR is posted for comment until March 5.

**NERC Link:**

<http://www.nerc.com/filez/standards/Project 2009-06 Facility Ratings.html>

## **NERC Violation Risk Factors and Violation Severity Limits (VRF and VSL)**

There are postings on the TOP-004-2 VSLs, CIP-002 to 009 VSLs and the MOD Standards VRFs. In Alberta VRFs and VSLs will be set by the AUC, so the AESO generally does not comment on these NERC postings. The postings can be viewed at the link below.

NERC Link:

[http://www.nerc.com/filez/standards/Reliability\\_Standards\\_Under\\_Development.html](http://www.nerc.com/filez/standards/Reliability_Standards_Under_Development.html)

## **WECC Reliability Standards**

### **BAL-012-WECC-2-CR - Frequency Responsive Reserve Criterion**

Purpose:

Draft Criterion, posted for comment.

Current Criterion:

WECC currently uses BAL-00X-1 FRS Frequency Responsive Reserve Criterion.

Proposed Criterion:

The purpose of this Frequency Responsive Reserve (FRR) Criterion is to develop a criterion that meets the directives of the WECC Board of Directors (Board) and the request for the development of a criterion.

The drafting team identified two measurement periods for a Frequency Response Measurement Event. The periods are the Primary Frequency Response Duration Period from zero to 30 seconds and the Secondary Frequency Response Duration Period from 31 seconds to 15 minutes.

During the Primary Frequency Response Duration Period, the minimum required FRR amount is based upon not permitting under frequency load shedding (UFLS) for the simultaneous outage of the two largest generators in the Western Interconnection for the worst case load conditions of only 80 GW (see system frequency plot below). The simultaneous loss of the two largest generators is a NERC category C event, which allows for controlled load shedding including UFLS. Even though permitted by NERC, the drafting team selected the minimum amount required in the FRR Criterion (BAL-012-WECC-2-CR) such that the tripping of the two largest generators simultaneously will not result in UFLS during light load conditions. Light load conditions with only 80 GW total WECC load is the worst case scenario for exposing the system to UFLS based upon 2007 system studies. The Primary Frequency Response Amount is then allocated based upon load and generation.

Current Status:

The criterion is posted for comment on the WECC site until February 20.

WECC Link:

<http://www.wecc.biz/index.php?module=pnForum&func=viewtopic&topic=920>

### **Proposed New Criterion - After-the-Fact Regional Criterion**

Purpose:

Draft Criterion, posted for comment.

Current Criterion:

There is no current criterion.

Proposed Criterion:

To create an ATF tag that complies with all Regional Criteria and reflects actual operating conditions between Balancing Authorities, during a previous hour.

Current Status:

The criterion is posted for comment on the WECC site until February 27.

WECC Link:

<http://www.wecc.biz/index.php?module=pnForum&func=viewtopic&topic=921>

## **Alberta Reliability Standards**

Information on all Alberta Reliability Standards is available on the AESO web site at:

<http://www.aeso.ca/rulesprocedures/17006.html>

## **AESO Reliability Committee (ARC)**

The ARC last met on Dec 2. Presentations were made by the AESO on filing Reliability Standards with AUC under T-Reg section 19 and on the Stakeholder consultation plan for T-Reg Section 23 – compliance monitoring and enforcement. EOP-003 and EOP-004 were recommended by the OWG to be adopted and ARC accepted the recommendation. The AESO presented the 2009/2010 standards work plan. The next meeting is scheduled for March 2009.

The T-Reg Section 23 presentation from the meeting is available at:

<http://www.aeso.ca/rulesprocedures/15409.html>

## **ARC Operations Work Group**

The OWG met last on November 14. The OWG reviewed the drafts prepared by the AESO for Alberta Reliability Standards EOP-003-AB-1 and EOP-004-AB-1. Revisions were sent to the OWG members with the opportunity to comment until Nov. 28. It was agreed that the AESO will prepare the revision documents for PRC-009-0, PRC-010-0, PRC-021-1 and PRC-022-1 for the next scheduled meeting in February 18, 2009.

Work Group information is available at: <http://www.aeso.ca/rulesprocedures/15411.html>

## **ARC Technical Work Group**

The TWG met on December 9. FAC-001-0 and 002-0 were reviewed by the group. It was determined that PRC-002-1 applies to the WECC and there is no need for the WG to review the standard. The WG started the Alberta rewrite of FAC-501-WECC-1. The next meeting is scheduled for February 19, 2009.

Work Group information is available at: <http://www.aeso.ca/rulesprocedures/15412.html>

## **ARC Transmission Planning Work Group**

The TPWG last met on September 10. The next meeting is tentatively scheduled for Q1 2009.

Work Group information is available at: <http://www.aeso.ca/rulesprocedures/15413.html>

## **ARC Security Work Group**

The Security Working Group met on January 22. The change document for CIP-001-AB-1 was presented. This document outlines the changes made between the existing NERC standard and the proposed Alberta standard. The work group now has an opportunity to comment on the Alberta standard.

A presentation was given by Denis Huot of the Alberta Security and Strategic Intelligence Support Team on how security threats to critical infrastructure are handled within the province.

Jason Murray gave a presentation on the role the AESO System Control Centre has managing the power system and the specifics of the System Controller role pertaining to OPP 808 – Sabotage Reporting. The next SWG meeting is scheduled for February 12.

Work Group information is available at: <http://www.aeso.ca/rulesprocedures/15979.html>

## **ARC Compliance Work Group**

A compliance monitoring program for standards has been completed and being used to develop an implementation plan for 2009. The program was developed with extensive stakeholder consultation

through over 10 meetings of the workgroups over 8 months. The program is well received and supported by the stakeholders.

ISO Rule 12 is approved and enables monitoring of reliability standards as established in the compliance monitoring program. Compliance monitoring will be implemented for each of the standards prior to the effective date of the standard. Standards under approval have effective dates well into 2009, at which time compliance monitoring will be initiated.

The ARC compliance working group has met it's original mandate of providing input and advice in establishing the Compliance Monitoring Program and the Implementation Program for Alberta. Bi-monthly meetings will be scheduled with the compliance working group to discuss key issues related to compliance and the implementation of the programs. In the coming months, the focus will be on establishing and operationalizing processes and procedures consistent with the two programs.

Work Group information is available at: <http://www.aeso.ca/rulesprocedures/16400.html>

## **Standards Review Committee (SRC) of the ISO/RTO Council**

The SRC holds biweekly teleconferences and quarterly meetings to discuss and review the current NERC standards posted for review and to draft a group response to them. The most recent meeting was hosted by the California ISO on January 7 and 8.

### **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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