

Meeting Notes

Project 2016-02 Modifications to CIP Standards Drafting Team

January 16-18, 2017

NERC Offices Atlanta, GA

Administrative

1. Review NERC Antitrust Compliance Guidelines and Public Announcement¹

Howard Gugel reviewed antitrust guidelines and public announcement.

2. Safety briefing

3. Introductions / Determination of Quorum

Individuals attending the meeting in-person and remotely introduced themselves. Quorum was achieved with at least six of the nine Standards Drafting Team members in attendance each day of the meeting.

4. Chair's remarks / Review meeting agenda and objectives

Co-chair David Revill welcomed attendees to the meeting and reviewed the agenda items as follows: review project SAR; review CIP-002 Implementation Plan; approve CIP-012-1 comments and responses; review future In-person meeting schedule; and review the outreach plan for the project.

Agenda Items

1. Review Project SAR

Standards Drafting Team (SDT) leadership reviewed the Project 2016-02 SAR, to include the Version 5 Transition Advisory Group (V5TAG) issues identified in the CIP V5 Issues for Standard Drafting Team Consideration (V5TAG Transfer Document) and the Federal Energy Regulatory Commission (Commission) directives contained in FERC Order No. 822. SDT leadership also presented and discussed the status of SAR items that are complete, as well as those that remain outstanding.

In particular, the SDT reviewed the following outstanding FERC Order No. 822 directive included in paragraph 53, which states "...the Commission concludes that modifications to CIP-006-6 to provide controls to protect, at a minimum, communication links and data communicated between bulk electric system Control Centers are necessary in light of the critical role Control Center communications play in maintaining bulk electric system reliability. Therefore, we adopt the NOPR proposal and direct that NERC, pursuant to section 215(d)(5) of the FPA, develop modifications to the CIP Reliability Standards to require responsible entities to implement controls to protect, at a minimum, communication links and sensitive bulk electric system data communicated between bulk

¹ See page 4.

electric system Control Centers in a manner that is appropriately tailored to address the risks posed to the bulk electric system by the assets being protected (i.e., high, medium, or low impact).”

The SDT also discussed the modifications developed to expand the scope of CIP Exceptional Circumstances, noting that the modifications have been vetted by industry through an informal comment process. The SDT noted that the CIP Exceptional Circumstances modifications are planned for inclusion in a formal comment/ballot as part of the virtualization action item in order to reduce the number of revisions made to the CIP standards.

The SDT also presented items that have been proposed to the SDT for consideration but that are not within the scope of the current SAR in an effort to determine the appropriate manner to address the issues:

- Industry Feedback:
 - Address implementation issues identified in CIP-007 R2 and CIP-010 R1
- NERC Remote Access Study Report:
 - IP-to-Serial Conversion
 - System-to-System Remote Access
 - Preventing Interactive Remote Access User Device Compromise
 - Remote Access via Managed Security Service Providers
 - The Use of Soft Tokens for Remote Access Authentication
 - Virtualization of Intermediate Systems That Provide Remote Access to Bulk Electric System (BES) Cyber Systems
 - Controls for Management Interfaces

2. Review CIP-002 Implementation Plan

Standards Drafting Team reviewed and discussed proposed revisions to CIP Reliability Standards to address the issues of planned and unplanned changes by clarifying the language and not including a reference to planned and unplanned changes in each CIP implementation plan. The conforming changes are proposed for CIP-002, CIP-003, and CIP-004-011.

The SDT considered the following language to address planned and unplanned changes, but recognized that the language that follows may be revised:

Planned Changes refer to changes to the Bulk Electric System or Cyber Asset(s) that were planned and implemented by the Responsible Entity or with the Responsible Entity’s awareness. Planned Changes typically involve a change to a Bulk Electric System asset (e.g., substation, generating resource, Control Center) or a change to a Cyber Asset that was foreseen by the Responsible Entity.

Unplanned Changes refer to (i) any changes to the Bulk Electric System or a Cyber Asset that occur without the entity's awareness or (ii) changes to the categorization of a Cyber Asset caused by a notification from another entity or the output of a planning study.

3. Approve CIP-012-1 comments and responses

The Standards Drafting Team reviewed comments and discussed suggested responses to proposed CIP Reliability Standard CIP-012 to provide Responsible Entities the latitude to protect the communication links, the data, or both, to satisfy the security objective consistent with the capabilities of the Responsible Entity's operational environment. Several comments addressed the interplay between the TOP and IRO Reliability Standards, as well as data demarcation and clarification of responsibilities when more than one Responsible Entity is involved.

The SDT reviewed the history and status of CIP-012, which has been posted for industry comment and both an initial and additional ballot. The SDT further discussed that, during the additional ballot, the standard received an approval of 63.91%, and that comments from the additional ballot are currently under review by the SDT. The SDT's dialogue resulted in the following proposed revisions to CIP-012 standard, Implementation Guidance, and Technical Rationale document: Conforming changes related to removal of the term "demarcation" (including a suggestion for a slight modification of requirement part 1.2 –"Identification of a Responsible Entity's point where security protection is applied"); Removal of "role;" and update of the Implementation Guidance reference diagrams.

The Standards Drafting Team discussed the issue of the communication links between Control Centers and their associated Data Centers. The SDT discussed this issue, and stated that a Responsible Entity needs to protect the in-scope data while being transmitted between Control Centers, and that CIP-012 is not intended to protect data being transmitted between a Control Center and its associated Data Center. The SDT made plans to develop a draft approach for clarifying the SDT position in the appropriate document.

Also, the SDT discussed clarification of the connection with the TOP and IRO Reliability Standards. The SDT discussed its intention that Responsible Entities focus on protecting Real-time monitoring and Real-time Assessment data, and that, while an entity can directly tie these to the activities of the IRO and TOP standards, the SDT did not want to restrict entities to the IRO and TOP standards to define the in-scope data to be protected. In addition, the SDT discussed its position that it is redundant to re-state language from the IRO and TOP standards.

SDT Voting—See below for further voting information and documents

CIP-012-1 – change "demarcation point" to "point."

Passed – no abstentions or objections

CIP-012-1 – team approval of modifications to Requirements and Measures; VLSs to come

Passed – no abstentions or objections

CIP-002-6 – Unplanned Changes Table – Approve

Passed – no abstentions or objections

4. Future In-person Meetings

- a. February 13-15, 2018 (OUC – Orlando, FL)
- b. March 27-29, 2018 (Atlanta, GA)
- c. April 17-19, 2018 (Location TBD—tentative—Ft. Worth, TX)
- d. May 22-24, 2018 (AEP – Columbus, OH)
- e. June 19-21, 2018 (Location TBD—)
- f. July (TBD – Working with Forrest)

5. Review / update future event schedule - assignments:

- a. Make conforming changes to the Planned/Unplanned Changes documents
- b. Locate the Word version of the BCA lessons learned document
- c. Send out all documents from the January Meeting
- d. Schedule QR for CIP-012 docs beginning 1/26 and ending 1/31
- e. Prepare for informal posting of planned/unplanned changes documents

6. Adjourn

January 16, 2018

Straw Vote – Do you support the finalization of CIP-002-6, the Implementation Plan document, Comment Form, and Responses to Comments related to the TOCC issue?*

*Pending a vote for the Planned and Unplanned Changes section.

Attachment 1				
Name	Company	Member/ Observer	Straw Vote (X)	Attendance Conference Call/Web (Y/N)
Christine Hasha	Electric Reliability Council of Texas	Co-Chair		Y
David Revill	GSOC	Co-Chair		Y
Steven Brain	Dominion Energy	Member		Y
Jay Cribb	Southern Company	Member		Y
Jennifer Flandermeyer	Kansas City Power and Light	Member		
Tom Foster	PJM Interconnection	Member		Y
Richard Kinass	Orlando Utilities Commission	Member		
Forrest Krigbaum	Bonneville Power Administration	Member		Y
Mark Riley	Calpine	Member		Y
Katherine Street	NERC	NERC Staff		Y
Mat Bunch	NERC	NERC Staff		Y
Shamai Elstein	NERC	NERC Staff		
Marisa Hecht	NERC	NERC Staff		
Tom Hofstetter	NERC	NERC Staff		Y

Attachment 1

Name	Company	Member/ Observer	Straw Vote (X)	Attendance Conference Call/Web (Y/N)
Tobias Whitney	NERC	NERC Staff		
Lonnie Ratliff	NERC	NERC Staff		Y
Mike Keane	FERC	FERC		Y
Jan Bargaen	FERC	FERC		
Dave Norton	FERC	FERC		
Margaret Scott	FERC	FERC		
Ken Lanehome	Bonneville Power Administration	PMOS		
Ash Mayfield	Grand River Dam Authority	PMOS		

January 17, 2018

Straw Vote –

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Name	Company	Member/ Observer	Straw Vote (X)	Attendance Conference Call/Web (Y/N)
Christine Hasha	Electric Reliability Council of Texas	Co-Chair		Y
David Revill	GSOC	Co-Chair		Y
Steven Brain	Dominion Energy	Member		Y
Jay Cribb	Southern Company	Member		Y
Jennifer Flandermeyer	Kansas City Power and Light	Member		
Tom Foster	PJM Interconnection	Member		
Richard Kinas	Orlando Utilities Commission	Member		N
Forrest Krigbaum	Bonneville Power Administration	Member		Y
Mark Riley	Calpine	Member		Y
Katherine Street	NERC	NERC Staff		Y
Mat Bunch	NERC	NERC Staff		Y
Shamai Elstein	NERC	NERC Staff		Y
Marisa Hecht	NERC	NERC Staff		Y
Tom Hofstetter	NERC	NERC Staff		Y
Tobias Whitney	NERC	NERC Staff		
Lonnie Ratliff	NERC	NERC Staff		

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Name	Company	Member/ Observer	Straw Vote (X)	Attendance Conference Call/Web (Y/N)
Mike Keane	FERC	FERC		Y
Jan Bargaen	FERC	FERC		
Dave Norton	FERC	FERC		
Margaret Scott	FERC	FERC		
Ken Lanehome	Bonneville Power Administration	PMOS		Y
Ash Mayfield	Grand River Dam Authority	PMOS		

January 18, 2018

CIP-012-1 – change “demarcation point” to “point.”

Passed – no abstentions or objections

CIP-012-1 – team approval of modifications to Requirements and Measures; VLSs to come

Passed – no abstentions or objections

CIP-002-6 – Unplanned Changes Table – Approve

Passed – no abstentions or objections

Attachment 1

Name	Company	Member/ Observer	Straw Vote (X)	Attendance Conference Call/Web (Y/N)
Christine Hasha	Electric Reliability Council of Texas	Co-Chair	Y Y Y	Y
David Revill	GSOC	Co-Chair	Y Y Y	Y
Steven Brain	Dominion Energy	Member	Y Y Y	Y
Jay Cribb	Southern Company	Member	Y Y Y	Y
Jennifer Flandermeyer	Kansas City Power and Light	Member		
Tom Foster	PJM Interconnection	Member	Y Y	Y
Richard Kinan	Orlando Utilities Commission	Member		
Forrest Krigbaum	Bonneville Power Administration	Member	Y Y Y	Y
Mark Riley	Calpine	Member	Y Y Y	Y
Katherine Street	NERC	NERC Staff		Y
Mat Bunch	NERC	NERC Staff		Y
Shamai Elstein	NERC	NERC Staff		
Marisa Hecht	NERC	NERC Staff		Y
Tom Hofstetter	NERC	NERC Staff		Y

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Name	Company	Member/ Observer	Straw Vote (X)	Attendance Conference Call/Web (Y/N)
Tobias Whitney	NERC	NERC Staff		
Lonnie Ratliff	NERC	NERC Staff		
Mike Keane	FERC	FERC		Y
Jan Bargaen	FERC	FERC		
Dave Norton	FERC	FERC		
Margaret Scott	FERC	FERC		
Ken Lanehome	Bonneville Power Administration	PMOS		Y
Ash Mayfield	Grand River Dam Authority	PMOS		