

# Meeting Minutes

## System Protection and Control Working Group

### Conference Call

December 8, 2022 | 1:00 – 5:00 p.m. Eastern

#### Agenda Items

##### 1. Call to Order

- |   |                       |
|---|-----------------------|
| a. NERC Antitrust and Personal Conduct Statement                | <b>Ed Ruck</b>        |
| <i>Anti-Trust laws and personal conduct statement were read</i> |                       |
| b. Opening Remarks  | <b>Bill Crossland</b> |
| c. Concurrence of notes from previous meeting for posting       | <b>Bill Crossland</b> |
| <i>No objections were raised to being posted as attached.</i>   |                       |

##### 2. Administrative

- |                            |                       |
|----------------------------|-----------------------|
| a. Agenda Review/Revisions | <b>Bill Crossland</b> |
| b. New Members/Observers   | <b>Bill Crossland</b> |

##### 3. Liaison Updates

- |                         |                                 |
|-------------------------|---------------------------------|
| a. <del>IEEE PSRC</del> | <del><b>Mike Thompson</b></del> |
| b. IRPS                 | <b>Manish Patel</b>             |

*A new event report has been published about an event in Texas.*

*All current IBRs are grid following. How will grid forming inverters impact the grid? What will they look like from a system protection perspective?*

- |                           |                            |
|---------------------------|----------------------------|
| c. RSTC and other updates | <b>Stephen Crutchfield</b> |
|---------------------------|----------------------------|

*RSTC meeting highlights:*

*Approved Items:*

*2 scope documents (SPCWG and RS)*

*2 white papers from LMWG*

*3 Security Guidelines from the SCWG*

*2 docs from SPIDERWG*

*1 white paper from SITES*

*Endorsed Items:*

*2 SARs from the IRPS*

Sector elections have concluded; now taking at-large nominations; will have new members appointed by board in February and will get sponsor volunteers to appoint before the March RSTC meeting. Will also create a new nominating Subcommittee.

RSTC work plan summit is January 31-February 2 in Atlanta.

March RSTC meeting will be open to observers. Location will be at a hotel and Tampa is the primary location with Atlanta as a backup location.

#### 4. Project Updates

a. FERC 881

**Bill Middaugh/Mark Gutzman**

*The following is the current DRAFT determination. This is subject to a little more verification and discussion/concurrence with the full SPCWG. "Based on these findings, the SPCWG believes that no changes to PRC-023-4 are necessary and that the systems do not need to be set to meet the margin required in PRC-023-4 for the AAR that are determined by the entities (Order 881-A, P24 above). However, the SPCWG does recommend that entities review all Protection System loadabilities for all transmission elements that fall under the orders to ensure that there is a sufficient level of adequate margin. "*

b. PRC-019-2

**Rich Bauer**

*Right now, Rich is still pursuing a response from the compliance implementation group*

*Some frustration was noted with regards to the compliance implementation group and getting feedback from that group.*

c. PRC-019 SAR

**Jason Eruneo**

*A vote was taken on the SAR, but only received a 38 percent approval, so they need to go back and revise. There may be another request to develop a compliance implementation guide for inverter based resources with relation to PRC-019.*

*An existing Technical Reference Document has a number of examples within it and that this should be referenced for industry*

d. Scope Document

**Lynn Schroeder**

*It was approved 12/6/2022 at the RSTC meeting. The revised scope has been submitted to NERC Admins for posting to the SPCWG website.*

e. SPCWG Library Review

**Jeff Iler**

*No progress since the last meeting. NERC staff was going to try and retrieve some of the existing documents that were removed from the SPCS document website.*

***ACTION ITEM: Circle back with Sandy to see how this is progressing***

f. SPCWG Website Review

**Bill Crossland**

*Waiting on Jeff's effort with the Library. Roster and the newly revised scope document have been sent to administrators for posting to the website.*

***ACTION ITEM: Check back with Sandy to ensure that these have been revised 12/15/2022 – These have been posted as of 1404 EST 12/8/2022***

**5. Under-frequency Load Shedding and low inertia situations** **Kevin Jones/Rich Bauer**

- a. Using microprocessor relays to sense ROCOF and use that to implement a modified UFLS scheme

*Kevin Jones made an excellent presentation on how to design and implement an UFLS scheme that incorporates not just where the frequency is, but how it is changing.*

***ACTION ITEM: Ed to receive the presentation and post it to the SPCWG Extranet site.***

**6. NERC Standards and 61850** **Lynn Schroeder**

*Lynn provided the following scope for consideration by the working group “NERC Standards and 61850 Technical Reference Document Provide industry guidance for impacts of 61850 architecture on NERC Protection System definition and related standards. Many utilities are incorporating 61850 into Protection and Control (P&C) designs. Functions traditionally done by hard wired control circuits are being replaced by networking architecture, configured Ethernet messaging, merging units and high-level automated system engineering processes. Reference to include clarity in 61850 P&C designs regarding Protection System definition, relay maintenance requirements, and recommended documentation to support design. SPCWG to coordinate with team that is concurrently reviewing the definition of a Protection System, and ensure technical reference supports the outcome. This initiative also provides groundwork for future industry growth in generic-platform grid protection, monitoring, control, and management.”*

*One comment was to go beyond “control circuits” but also include analog circuits like PT/CT circuits as well.*

*Another comment was that maybe to start developing something, but that the SPCWG should wait for the definition to be developed and approved before publishing something.*

*A third comment was to get it on the work plan so that we don't forget it, but not work on it until after the definition.*

*This document could also be provided to NERC compliance for a PRC-005 for a compliance guidance statement or provided to auditors for audit assessment help.*

*After review, the group decided that the most appropriate next step is to get a small group together to button up the scope and to create an outline for a paper and add to the workplan*

***ACTION ITEM: Add to the SPCWG Work Plan. Put together a group, request RSTC approval, add to wEROck TEAM: Eric Udren (Lead), Lynn Schroeder, George Wegh, Jeff Iler, and Davis Erwin. Bill would like to see one more person as well and people will be looking for industry participants that could be of assistance.***

**7. Discussion of Revised and Approved SPCWG Scope** **Bill Crossland**

*Bill went through the revised scope. He also noted that like any living document, there is always room for improvement, so if people find issues with the revised scope, it is not too early to start working on the next revision.*

**8. SPCWG Library Review**

**All**

- a. Process to update older white papers and library documents

**Steve Crutchfield**

*There is a set process for Reliability Guideline that includes things like a 45 day comment period. There is not set process in the charter for other document, but in general, it would be expected that it would go to get comments from the RSTC and revise as needed and then get approval at a subsequent meeting.*

*Documents should be reviewed and renewed at least every 3 years. Check for relevancy, determine if industry would benefit from it. If the document is older than three years, the SPCWG should put together a group to review and renew each of these older documents.*

*The group should also look at documents that are approaching 3 years and put together a group so that these can be updated prior to it reaching the three year mark.*

*Since the SPCWG has a large number of older documents, it should consider putting together a list of these documents and then prioritizing them to ensure that those that need to be refreshed sooner can be.*

*There is an option to “retire” an older document that may still have some usefulness, but is not quite as relevant to today. This would preclude the SPCWG from needing to refresh them in the future.*

- b. [Determination of Practical Transmission Relaying Loadability Settings](#)

*Standard Drafting Team will edit the appendix talking about out of step blocking. The drafting team will propose some edits for the SPCWG to consider. This should wrap up in the next three months or so. TEAM: Manish Patel (Lead), John Grimm, Jeff Iler, Stony Martin*

- c. [Technical Reference Document: Transmission System Phase Backup Protection](#) TEAM:

**9. Future Meetings**

**Ensure future meetings do not conflict with US or Canadian holidays**

<b>SPCWG and Subgroup Meeting Dates</b>	<b>Time (Eastern Prevailing Time)</b>	<b>Location</b>
February 9, 2023	1:00 – 5:00 p.m.	WebEx
April 12-13, 2023	8am – 5 pm, 8 am - noon	Charlotte
June 8, 2023	1:00 – 5:00 p.m.	WebEx
August 9-10, 2023	8am – 5 pm, 8 am - noon	Minneapolis – St. Paul
October 25-26, 2023	8am – 5 pm, 8 am - noon	Atlanta or Charlotte
December 14, 2023	1:00 – 4:00 p.m.	WebEx

*Updated the meeting schedule*

**10. Roundtable**

**All**

*Lynn would like to share the Enter-Entity Short Circuit Paper as a webinar and/or presentation to industry as a whole of specifically with the NATF, and wants permission to develop such a presentation.*

*ACTION ITEM: Ed to confirm there are no issues with making this presentation – Complete, email sent to Lynn 12/9/2022*

*Mark Gutzmann will be stepping down as a representative to the SPCWG as of the end of the meeting. Thank you for all your participation in the group.*

**11. Adjourn**

**Bill Crossland**

\*Background materials included.

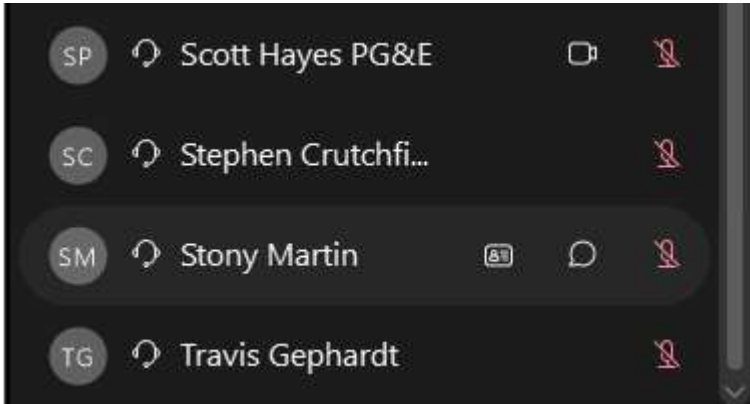
**ATTENDEES:**

**Ed Ruck  
Bill Crossland  
Davis Erwin  
Jeff Iler  
Norris Henderson  
Stephen Crutchfield  
Stony Martin  
Lynn Schroeder  
Mark Gutzmann  
John Grimm  
Eric Udren  
Glenn Hargrave  
Kevin Thompson  
Manish Patel  
Phil Winston**

**Davis Erwin PG&E– add to Roster as observer?**

A screenshot of a Zoom meeting participant list. The list is displayed in a dark-themed window. At the top, the host is identified as Ed Ruck with the name 'Host, me'. Below the host, there are 15 participants listed, each with a circular icon containing a letter or number. The participants are: 3309\*\*\*\*48, Bill Crossland, Brian Kasmarzik Quanta, Davis Erwin, Eric Udren, George Wegh, Glenn Hargrave, Hataway, Steven S, Hua Li, Jason Eruneo, Jeff Iler, John Grimm, Kevin Thompson ITC, Lynn Schroeder, Manish Patel, Mark Gutzmann, and Norris Henderson. Some participants have additional icons to their right, such as a camera icon for Jason Eruneo and John Grimm, and a speech bubble icon for Lynn Schroeder. The list is scrollable, as indicated by a vertical scrollbar on the right side of the window.

Participant	Initials	Additional Icons
Ed Ruck	Host, me	
3309****48	3	
Bill Crossland	BC	
Brian Kasmarzik Quanta	BQ	
Davis Erwin	DE	
Eric Udren	EU	
George Wegh	GW	
Glenn Hargrave	GH	
Hataway, Steven S	HS	
Hua Li	HL	
Jason Eruneo	JE	Camera icon
Jeff Iler	JI	
John Grimm	JG	Camera icon
Kevin Thompson ITC	KI	
Lynn Schroeder	LS	Speech bubble icon
Manish Patel	MP	
Mark Gutzmann	MG	
Norris Henderson	NH	



Phil Winston