

**SOUTHWEST POWER POOL**  
**SYSTEM PROTECTION AND CONTROL WORKING GROUP MEETING**

July 22, 2020 1:00PM - 5:00PM  
July 23, 2020 8:00AM - 12:00PM

Net Conference

## SUMMARY OF MOTIONS AND ACTION ITEMS

### MOTIONS:

1. Lynn Schroeder made a motion for the approval of the concept of the Thunderhead RAS in relation to the protection and control schemes, contingent on the following conditions:
  - Invenergy to provide relay settings and control schematics for SPCWG review and approval.
  - Maximum of a two year time frame of being in-service, with the implementation of the RAS to begin no more than two years prior to the expected in-service date of the "R-Line" or other contingency project.
  - ORWG and TWG comments bring up no additional issues

Note: SPCWG to convene prior to the scheduled October 2020 SPCWG meeting to review relay settings and control schematics, and review comments and concerns from ORWG and TWG.

John Anderson seconded the motion. The motion passed with no opposition or abstentions.

2. John Anderson made a motion to recommend that the Carthage Water & Electric Plant's request to be removed as a UFLS entity be granted. This recommendation is conditional upon Carthage Water & Electric Plant becoming unregistered as a UFLS Only Distribution Provider (DP). In addition, if in the future SPP determines that Carthage Water & Electric Plant's contribution to load shed is necessary to meet the UFLS plan's requirements, Carthage Water & Electric Plant will re-register as a DP or UFLS-only Distribution Provider and become a UFLS Entity.

Chris Angland seconded the motion. The motion passed with no opposition or abstentions.

3. Ken Zellefrow made a motion to approve the UFLS Plan as edited during the meeting. Shawn Jacobs seconded the motion. The motion passed with no opposition or abstentions.

#### **ACTION ITEMS:**

- Zachary Sharp took Action Item #152 to collect additionally requested material from Invenergy concerning the Thunderhead RAS (relay settings and control schematics), and provide to the SPCWG members for review. Zachary Sharp will also set up an ad-hoc meeting for the SPCWG to discuss the material provided by Invenergy and comments from the ORWG and TWG prior to the scheduled October 2020 meeting.
- Zachary Sharp took Action Item #153 to follow up with CWEP and inform them of SPCWG's approval of their UFLS removal request. Zachary will also follow up with the SPCWG when CWEP is unregistered as a UFLS Only Distribution Provider and has disabled the relevant relays from tripping for UFLS.
- Zachary Sharp took Action Item #154 to circulate the Three Terminal Line White Paper amongst the SPCWG Members for review.

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## **MINUTES**

### **AGENDA ITEM 1 – ADMINISTRATIVE ITEMS**

SPCWG Chair Steve Wadas called the meeting to order at 1:03 p.m. There were no proxies. The attendance list for both days is being included in the attachments.

A Motion to approve April 15-16, 2020 meeting minutes as submitted made by Lynn Schroeder. Chris Angland seconded. The motion passed unopposed.

Motion to approve the July 22-23 2020 agenda as is was made by Ken Zellefrow. Shawn Jacobs seconded. The motion passed unopposed.

### **AGENDA ITEM 2 – ANTITRUST STATEMENT**

Zachary Sharp read the SPP Antitrust Statement.

### **AGENDA ITEM 3 – REVIEW OF PAST ACTION ITEMS**

Zachary Sharp reviewed the past action items. Items #129 and #146 were closed. All other action items correspond to agenda topics for the current meeting.

### **AGENDA ITEM 4 – PROPOSED CLARIFICATIONS TO MRO'S PRC-004 RFI OP-103**

Julie Sikes from MRO joined the meeting and discussed the current MRO updates to the PRC-004-5(i) Request For Information (RFI) document OP-103 and how those changes related to the suggested edits submitted by SPCWG. Julie Sikes took several notes on suggested edits to the current MRO language from SPCWG and will review potential changes with MRO staff. SPCWG staff can make additional suggestions to MRO via HEROS@mro.net email, or direct email to Julie Sikes.

## SYSTEM PROTECTION AND CONTROLS WORKING GROUP MINUTES 4/15-16/2020

### AGENDA ITEM 5 – THUNDERHEAD RAS (APPROVAL)

Tom Kay from Invenergy talked through the Thunderhead RAS presentation. Tom noted that there was a court decision in June that has delayed the "R-Line" project. Suitable alternatives are being researched in case the "R-Line" is further delayed or cancelled. The RAS will be operational for two years, and retired after two years regardless of system upgrades. Without a system upgrade, the Thunderhead Wind Farm would be limited to the LOIS value of 195 MWs after the two year period. Invenergy plans to use line flow detection on the Holt - Grand Island 345 kV line to determine if the line is open. The microwave communication circuit is not redundant between Grand Island and Holt. If communications on the line has failed, the line is open, and Wind Farm output is above 195MW the windfarm will be curtailed. Steve Wadas brought up that the scheme could inadvertently activate the RAS. John Anderson asked about logic accounting for reclose time. Tom answered that it was discussed, but that WAPA was not comfortable with the potential short term overload on their equipment. Steve asked if there was an enable/disable switch. Tom explained that the enable/disable switch had been removed based on feedback from WAPA.

Lynn Schroeder made a motion for the approval of the concept of the Thunderhead RAS in relation to the protection and control schemes, contingent on the following conditions:

- Invenergy to provide relay settings and control schematics for SPCWG review and approval.
- Maximum of a two year time frame of being in-service, with the implementation of the RAS to begin no more than two years prior to the expected in-service date of the "R-Line" or other contingency project.
- ORWG and TWG comments bring up no additional issues

Note: SPCWG to convene prior to the scheduled October 2020 SPCWG meeting to review relay settings and control schematics, and review comments and concerns from ORWG and TWG.

John Anderson seconded the motion. The motion passed with no opposition or abstentions.

Zachary Sharp took Action Item #152 to collect additionally requested material from Invenergy concerning the Thunderhead RAS (relay settings and control schematics), and provide to the SPCWG members for review. Zachary Sharp will also set up an ad-hoc meeting for the SPCWG to discuss the material provided by Invenergy and comments from the ORWG and TWG prior to the scheduled October 2020 meeting.

## **AGENDA ITEM 6 – SPP NERC UPDATE**

Shannon Mickens gave a NERC update to the SPCWG. His presentation and reference documents were included in the background material for this meeting. The TPL drafting team and SPIDERWG were under consideration of being combined. NERC PC Executives Committee Leadership asked that the groups remain separate for now. The SPIDERWG is considering battery energy storage as a topic in their work plan. Shannon covered the recent Arkansas Public Service Commission workshop at a high level.

## **AGENDA ITEMS 7 & 8 – NERC SPCS UPDATE & NERC LESSONS LEARNED**

Lynn Schroeder gave an update on the NERC SPCS and then talked about some NERC Lessons Learned. The presentation provided in the background materials covers both Agenda Items 7 & 8. The NERC SPCS has been conducting shorter, more frequent net conference meetings due to COVID-19. Lynn suggested keeping a rolling agenda item to cover NERC Lessons Learned topics that are of interest to protection and controls engineers. John Anderson suggested that lessons learned could also come from SPP member companies.

## **AGENDA ITEM 9 – UFLS PLAN ISLANDING CONSIDERATIONS**

Charles Hendrix, Manager of the SPP Reliability Assurance Team, went over the provided presentation. This presentation is in response to Action Item #134. The group discussed the frequency capability curve with regards to step 4 of load shedding plan. The group agreed that Section 7.0 of the UFLS Plan could be removed.

## **AGENDA ITEM 10 – UFLS EXEMPTION LANGUAGE CHANGES TO UFLS PLAN (APPROVAL)**

Jonathan Hayes presented the UFLS Plan language changes that included the inclusion of the UFLS exemption guidelines. The group made an edit to the document during the meeting to remove the language from Section 7.0 and reserve the section for future use.

Ken Zellefrow made a motion to approve the UFLS Plan as edited during the meeting. Shawn Jacobs seconded the motion. The motion passed with no opposition or abstentions.

## **AGENDA ITEM 11 – CARTHAGE UFLS EXEMPTION REQUEST (APPROVAL)**

This item was covered after item 8. Steve Wadas went over the UFLS exemption language that the SPCWG agreed upon during the April 2020 meeting, and brought forward the request for UFLS requirements removal from the Carthage Water & Electric Plant.

John Anderson made a motion to recommend that the Carthage Water & Electric Plant's request to be removed as a UFLS entity be granted. This recommendation is conditional upon Carthage Water & Electric Plant becoming unregistered as a UFLS Only Distribution Provider (DP). In addition, if in the future SPP determines that Carthage Water & Electric Plant's contribution to load shed is necessary to meet the UFLS plan's requirements, Carthage Water & Electric Plant will re-register as a DP or UFLS-only Distribution Provider and become a UFLS Entity.

Chris Angland seconded the motion. The motion passed with no opposition or abstentions.

Zachary Sharp took Action Item #153 to follow up with CWEP and inform them of SPCWG's approval of their UFLS removal request. Zachary will also follow up with the SPCWG when CWEP is unregistered as a UFLS Only Distribution Provider and has disabled the relevant relays from tripping for UFLS.

#### **AGENDA ITEM 12 – SPP MINIMUM DESIGN STANDARDS UPDATE**

John Anderson reviewed the changes made to the Minimum Transmission Design Standards for Competitive Upgrades document. Chris Angland asked if the document defines what a 'high speed' scheme is. John agreed that the document may need some clarification around multiplex fiber. The group discussed battery requirements for sub 200 kV substations. John is going to take feedback offline to continue working on the language changes, with plans to discuss at the next SPCWG meeting in October 2020.

#### **AGENDA ITEM 13 – THREE TERMINAL LINE WHITE PAPER**

Jeff Beasley was unable to make the meeting. Steve Wadas reviewed the white paper at a high level. Lynn Schroeder suggested removing the recommendation section and leaving the white paper as a technical document. Zachary Sharp took Action Item #154 to circulate the Three Terminal Line White Paper amongst the SPCWG Members for review. The SPCWG will determine next steps on the paper at the October 2020 SPCWG meeting.

#### **AGENDA ITEM 14 – SPCWG REORG**

Zachary Sharp briefly covered the MOPC Reorg. The SPCWG will be transitioning to an Advisory Group (SPCAG).

#### **AGENDA ITEM 15 – SPCWG CHAIR NOMINATION PROCESS**

Zachary Sharp discussed the Chair and Vice Chair nomination and voting process, which will be conducted via email. Note that the Chair is eligible for re-nomination and has indicated to staff his desire not to continue to serve as chair.

## AGENDA ITEM 16 – DISCUSSION OF FUTURE MEETINGS

The October 2020 SPCWG meeting was transitioned to Net Conference. The group agreed upon the proposed 2021 schedule. OPPD and Xcel agreed to host the in person meetings.

October 14 - 15, 2020 (Net Conference)

2021 Dates and Locations Determination

- 2/9-10/2021 (Net Conference)
- 5/11-12/2021 (Omaha, OPPD)
- 8/10-11/2021 (Net Conference)
- 11/9-10/2021 (Denver, Xcel)

## AGENDA ITEM 17 – CLOSING ADMINISTRATIVE DUTIES

Zachary Sharp reviewed the new and open Action Items. Action Items #133, #134, #150 and #151 were closed.

The group discussed topics for future meetings:

- MRO RFI Reviews
- Protection in your shop
  - OG&E PMUs
- NERC Lessons Learned
- SPP Members Lessons Learned
  - Evergy Misoperation
- MRO PRS Update (Bob Soper)
- TWG Action Item related to Acceptable Use of RAS

Steve Wadas adjourned the meeting at 12:08.

Respectfully Submitted,

Zachary Sharp

SPCWG Staff Secretary

## SUMMARY OF ATTACHMENTS

Agenda (pg. 9-10)

Attendance List (pg. 11-12)



**SOUTHWEST POWER POOL, INC.**  
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July 22, 2020 1:00PM - 5:00PM CDT  
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**Net Conference**

**AGENDA**

1. Administrative Items.....Steve Wadas(10m)
  - a. Call to Order
  - b. Proxies
  - c. Approve minutes of April 15-16, 2020 meeting
  - d. Approve agenda
2. Antitrust Statement.....Zachary Sharp
3. Review of Past Action Items.....Zachary Sharp(5m)
4. Proposed clarifications to MRO's PRC-004 RFI OP-103..... Ken Zellefrow(45m)
5. Thunderhead RAS (Approval) .....Tom Kay(60m)
6. SPP NERC Update.....Shannon Mickens(20m)
7. NERC SPCS Update..... Lynn Schroeder(15m)
8. NERC Lessons Learned..... Lynn Schroeder(30m)
9. UFLS Plan Islanding Considerations..... SPP Reliability Assurance(20m)
10. UFLS Exemption Language Changes to UFLS Plan (Approval).....Jonathan Hayes(20m)
11. Carthage UFLS Exemption Request (Approval).....Steve Wadas(15m)
12. SPP Minimum Design Standards Update.....John Anderson / Doug Bowman(20m)
13. Three Terminal Line White Paper .....Jeff Beasley(45m)
14. SPCWG Reorg.....Zachary Sharp(20m)
15. SPCWG Chair Nomination Process.....Zachary Sharp(10m)

16. Discussion of Future Meetings.....Steve Wadas(20m)

- a. October 14-15, 2020 Tulsa, AEP Office
- b. 2021 Dates and Locations Determination
  - 2/9-10/2021 (Net Conference)
  - 5/11-12/2021 (Face to Face)
  - 8/10-11/2021 (Net Conference)
  - 11/9-10/2021 (Face to Face)

17. Closing Administrative Duties.....Steve Wadas(15m)

- a. Summarize Action Items
- b. Discuss upcoming meeting topics
- c. Adjourn meeting

Attendance:

Name	Role	Company	7/22/2020	7/23/2020
Steve Wadas	SPCWG Chair	NPPD	✓	✓
John Anderson	SPCWG Vice Chair	Evergy	✓	✓
Bob Soper	SPCWG Member	WAPA	✓	✓
Chris Angland	SPCWG Member	OPPD	✓	✓
David Oswald	SPCWG Member	Liberty Utilities	✓	✓
David Wheeler	SPCWG Member	Xcel Energy	✓	✓
Forrest Brock	SPCWG Member	WFEC	✓	✓
Jeff Beasley	SPCWG Member	GRDA		
Ken Zellefrow	SPCWG Member	City Utilities	✓	✓
Lynn Schroeder	SPCWG Member	Sunflower	✓	✓
Ryan Godwin	SPCWG Member	AEP		
Shawn Jacobs	SPCWG Member	OG&E	✓	✓
Zachary Sharp	SPCWG Staff Secretary	SPP	✓	✓
Allen Caspe		NEI	✓	
Ana Munoz		SPP	✓	✓
Charles Hendrix		SPP	✓	✓
Chris Colson		WAPA-UGPR	✓	
Craig Speidel		WAPA-UGPR	✓	
Gayle Nansel		WAPA-UGPR		✓
Jeff McDiarmid		SPP	✓	✓

Jeremy Severson		BEPC	✓	
John Allen		City Utilities	✓	
John Hare		OG&E	✓	
Jonathan Hayes		SPP	✓	✓
Juan H		Invenergy	✓	
Julie Sikes		MRO	✓	
Louis Guidry		CLECO	✓	✓
Marc Gomez		SWPA	✓	✓
Matthew Thykkuttathil		Sunflower	✓	✓
Mike Buyce		CU	✓	✓
Nathan Bean		SPP	✓	✓
Paul Mehlhaff		Sunflower	✓	✓
Randy Van Allen		Midwest Energy	✓	
Ryan Koch		BEPC	✓	
Scott Jordan		SPP	✓	✓
Shannon mickens		SPP	✓	✓
Tom Kay		Invenergy	✓	
Tracey Stewart		SWPA	✓	✓
Trey Rosel		SPP	✓	✓