



**Southwest Power Pool, Inc.
OPERATING RELIABILITY WORKING GROUP
Net Conference**

Thursday May 3rd 2018 8:30 AM – 12:00 PM (CDT)

• Action Items and Voting Record •

ACTION ITEM: Determine the encryption and communication requirements for the reliability communication tool.

ACTION ITEM: Add a field that shows the Kp magnitude of the next event.

ACTION ITEM: Perform a GMD Alert testing in coordination with the Load Shed test.

April 04-05, 2018 ORWG meeting minutes

Ron Gunderson (Nebraska Public Power District) moved to approve the April 04-05, 2018 ORWG meeting minutes as amended, and Allan George (Sunflower Electric Power Corporation) seconded the motion. The motion carried without opposition or abstention.

2018 Deliverability Study Scope

Jeff Wells (Grand River Dam Authority River) moved to endorse the 2018 Deliverability Study Scope, and Todd Gosnell (Omaha Public Power District) seconded the motion. The motion carried without opposition or abstention.

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• M I N U T E S •

Agenda Item 1 – Call to Order

Chairman Allen Klassen (Westar Energy, Inc.) opened the meeting at 8:30 AM on 5/03/2018.

Agenda Item 2 – Attendance

Jason Tanner (Southwest Power Pool) called attendance and a meeting quorum was reached.

Agenda Item 3 – Antitrust Statement

Jason Tanner (Southwest Power Pool) read the SPP Antitrust Statement.

Agenda Item 4 – Agenda Review

Allen Klassen (Westar Energy, Inc.) reviewed the agenda and noted the items that would require action.

Agenda Item 5 – Consent Agenda

Allen Klassen (Westar Energy, Inc.) discussed the consent agenda, which included the April 04-05, 2018 ORWG meeting minutes. Ron Gunderson (Nebraska Public Power District) requested to pull the minutes for discussion.

Pulled from Consent

Ron Gunderson (Nebraska Public Power District) provided corrections to the April 04-05, 2018 ORWG meeting minutes and Jason Tanner (Southwest Power Pool) made the adjustments as suggested.

Ron Gunderson (Nebraska Public Power District) moved to approve the April 04-05, 2018 ORWG meeting minutes as amended, and Allan George (Sunflower Electric Power Corporation) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 6 – 2018 Deliverability Study Scope

Chris Haley (Southwest Power Pool) discussed the 2018 Deliverability Study Scope, and reviewed the 2017 stakeholder recommendations. Chris stated that the study will monitor System Operating Limits (SOL) for stability and voltage issues. Chris explained the generator grouping and stated that each resource will be grouped into plants based on the site and point of interconnection for each resource in order to capture reliability constraints caused by simultaneously increasing multiple plants in a localized area. Chris stated that additional analysis will be performed in order to group one or more plants together using a methodology based on Power Transfer Distribution Factors (PTDF). Ron Gunderson (Nebraska Public Power District) expressed concern that the deliverability study does not respect the firm transmission rights, which could potentially lead to overprescribing the transmission system. Ron stated that he would like the study to assess firm transmission rights. Chris stated he would review Ron's recommendation with the SAWG to include in future study scopes.

Jeff Wells (Grand River Dam Authority River) moved to endorse the 2018 Deliverability Study Scope, and Todd Gosnell (Omaha Public Power District) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 7 – Updated to the RDS project HAA

Tim Miller (Southwest Power Pool) introduced Katie Mauldin (Southwest Power Pool) and stated that she is the lead engineer over the replicated data server (RDS) project. Tim stated that SPP has replicated the flowgate application, and we have license rights to a number of other applications that we will begin working to replicate. Tim stated that we do not have to spend money on additional hardware, however we may need to spend funds on software, site redundancy, and licensing. Tim stated that during the May 30th and 31st face to face meeting we will discuss the requirements and the cost of site redundancy. Keith Carmen (Tri-State G&T) stated that the RDS would be ok to use as a backup, however it should not be used as a primary, and Chris Shaffer (American Electric Power) asked if SPP was planning to use the RDS as a backup. Tim stated that SPP was not planning to use the RDS as a backup, but was planning to provide the tool as an additional service to the membership. Bryn Wilson (Oklahoma Gas and Electric Co.) asked Tim if he knew what some of the additional applications were, and Tim stated that some of the applications include a dashboard, alarm screens, and the AGC system. Tim stated that he would go through our entire suite of applications during the face to face.

Agenda Item 8 – ICCP Data Sharing

Allen Klassen (Westar Energy) presented a question that was asked to him regarding an approval process to gain access to ICCP data points. Tim Miller (Southwest Power Pool) explained the three data request types that his team would assess. Tim explained the first category and stated that his team will grant access to neighboring SPP member reliability data request. The second category of request would be from neighboring RC's or NERC. Tim stated that for this category his team would request permission from the affiliated TOP's before granting access. Tim explained the third category of data request are from market participants, and Tim stated as with category 2 permission would be requested from the affiliated TOPs before granting access. Jeff Wells (Grand River Dam Authority River) stated that since the SPP members have signed NDA's he doesn't have a problem with other entities within SPP having shared ICCP data points. Bryn Wilson (Oklahoma Gas and Electric Co.) stated that SPP may be taking on too much by managing who should or should not have data points. Bryn stated that SPP should develop a process to manage data point administration.

Agenda Item 9 – Reliability Communication Tool Update

Scott Aclin (Southwest Power Pool) discussed the reliability communication tool and stated the need. Scott explained that one of the primary needs for the tool is the administration of load shed calculations. Scott discussed the plan for the tool and the approach SPP is taking. Scott stated that SPP will be using existing in-house tools for the design process and SPP will be looking for beta testers. Ron Gunderson (Nebraska Public Power District) asked if the project will go through the CWG, and Scott stated that the project will be tracked by CWG and that he is on the next agenda. Scott reviewed the benefits of the tool and stated that SPP is targeting implementation of the project tool by the end of 2018. Phil Cox (American Electric Power) asked if the tool would be for TO/TOP communications only, and Scott stated the first phase would be. Ron asked if the tool would use SPP Net or the internet, and Neil Robertson (Southwest Power Pool) stated that we are still in discussion on the communication protocols to be used.

ACTION ITEM: Determine the encryption and communication requirements for the reliability communication tool.

Agenda Item 10 – Transmission Topology Optimization Applications

Kathryn Dial (Southwest Power Pool) discussed the topology optimization study, and stated that SPP has worked with Brattle Group to assess outage coordination, planning applications, and an ice storm scenario. Kathryn stated that 20 historical cases were reviewed to determine solutions for transmission constraints. Kathryn

explained the preferred solutions, which was looking for little to no radial load, a low number of switching actions, maximize amount of relief on constraint, and no adverse impacts to real-time or N-1 constraints. Kathryn provided a sample case with results from the tool and explained the three solutions provided by the tool. Kathryn stated that SPP has already developed a new operating guide from using this new tool. Kathryn also reviewed the tools solution metrics and explained the benefits for both outage coordination and real-time operations.

Agenda Item 11 – MWTG Update

Casey Cathey (Southwest Power Pool) discussed the Mountain West Transmission Group (MWTG) project and stated that the Public Service of Colorado (PSCO) withdrew from the MWTG. Casey stated that SPP is disappointed with PSCO's decision to withdrawal, as it is unfortunate they are forgoing such significant benefits for joining SPP. Casey stated that the remaining MWTG entities are looking at what the PSCO withdrawal means and are still interested in joining SPP. Casey stated that currently we are placing some items on hold and are recommending changing the 6/27 – 6/28 face to face meeting to a net conference. Keith Carmen (Tri-State G&T) added that the RC services is something that is actively being pursued.

Other Items:

Agenda Item 12 – ORWG Member Topic List

Jason Tanner (Southwest Power Pool) reviewed the ORWG Member topic list.

Action Item Review:

Agenda Item 13 – Review of Open and Closure Pending Actions

Jason Tanner (Southwest Power Pool) reviewed the action item list, and the group recommended closing AI 90, AI 108, and AI 113.

Agenda Item 14 – New Action Items

Jason Tanner (Southwest Power Pool) reviewed the new action items with the ORWG.

The ORWG recommended adding the following action items:

ACTION ITEM: Add a field that shows the Kp magnitude of the next event.

ACTION ITEM: Perform a GMD Alert testing in coordination with the Load Shed test.

Agenda Item 15 – General Q&A/Open Forum

Agenda Item 16 – Meeting Schedule

- a. 5/30 – 5/31/2018 Face-to-Face (Little Rock)(SPP) - CONFIRMED
- b. 6/27/2018 WebEx (Wed) 0830-1200
- c. 8/1 - 8/2/2018 Face-to-Face (Denver, CO) (Tri State) - CONFIRMED
- d. 9/6/2018 WebEx (Thurs) 0830-1200
- e. 10/3 – 10/4/2018 Face-to-Face (Little Rock, AR) (SPP) – CONFIRMED
- f. 11/1/2018 WebEx (Thurs) 0830-1200
- g. 12/6/2018 WebEx (Thurs) 0830-1200

Agenda Item 17 – Adjournment

Chairman Allen Klassen (Westar Energy, Inc.) adjourned the ORWG at 11:26 AM (EDT) on 5/03/2018.

Respectfully Submitted,
Jason Tanner, Secretary



**Operating Reliability Working Group
Meeting Attendance: 5/3/2018
M=Member, G=Guest, S=SPP Staff, P= Proxy**

Day 1		Name	Status	Company
x	1	Allen Klassen, Chairman	M	Westar Energy
x	2	Ron Gunderson, Vice Chairman	M	Nebraska Public Power District
x	3	Jim Useldinger	M	South Central MCN
x	4	Gary Plummer	M	City of Independence, MO
x	5	Kyle McMenamin	M	Xcel Energy
x	6	Laurie Gregg	M	Lincoln Electric System
x	7	Allan George	M	Sunflower Electric Power Corporation
x	8	Jeff Wells	M	Grand River Dam Authority
x	9	Todd Gosnell	M	Omaha Public Power District
x	10	Bryn Wilson	M	Oklahoma Gas and Electric Co.
x	11	Chris Shaffer	M	American Electric Power
x	12	David Pham	M	Empire District Electric Company
P	13	Matthew Stoltz	M	Basin Electric Power Cooperative
x	14	Chance Myers	M	Western Farmers Electric Cooperative
x	15	Craig Speidel	M	Western Area Power Administration
x	16	Abu Elteriefi	M	ITC Holdings
x	17	Jay Patel	M	Kansas City Power & Light
x	18	Mark Eastwood	M	City Utilities of Springfield
x	19	Keith Carman	M	Tri-State G&T
x	20	Phil Westby proxy for Matthew Stoltz	P	Basin Electric Power Cooperative
x	21	Phil Cox	G	American Electric Power
x	22	Jason Mazigian	G	Basin Electric Power Cooperative
x	23	John Allen	G	City Utilities of Springfield
x	24	Chris Lyons	G	Customized Energy Solutions
x	25	Yang Liu	G	DC Energy
x	26	John M Hare	G	Oklahoma Gas and Electric Co.
x	27	Kevin Ma	G	Oklahoma Gas and Electric Co.
x	28	Tom Mayhan	G	Omaha Public Power District
x	29	Keeth Works	G	Southwestern Power Administration
x	30	Frank Li	G	Western Area Power Administration
x	31	Ben Hammer	G	Western Area Power Administration
x	32	Baryaley Sharwani	G	Western Area Power Administration
x	33	Bob Cochran	G	Xcel Energy
x	34	Carrie Dixon	G	Xcel Energy
x	44	Jason Tanner	S	Southwest Power Pool
x	37	Casey Cathey	S	Southwest Power Pool
x	54	Neil Robertson	S	Southwest Power Pool
x	35	Jon Langford	S	Southwest Power Pool
x	36	Brad Johnston	S	Southwest Power Pool
x	38	Scott Aclin	S	Southwest Power Pool
x	39	Derek Hawkins	S	Southwest Power Pool
x	40	Jon Langford	S	Southwest Power Pool
x	41	Garrett Crowson	S	Southwest Power Pool
x	42	Scott Maple	S	Southwest Power Pool
x	43	Hagen Boehmer	S	Southwest Power Pool
x	45	Kathryn Dial	S	Southwest Power Pool
x	46	Katie Mauldin	S	Southwest Power Pool
x	47	Margaret Q. Adams	S	Southwest Power Pool
x	48	Mason Favazza	S	Southwest Power Pool
x	49	Chris Haley	S	Southwest Power Pool
x	50	Melissa Rinehart	S	Southwest Power Pool

x	51	Terry Oxandale	S	Southwest Power Pool
x	52	Tim Miller	S	Southwest Power Pool
x	53	Will Tootle	S	Southwest Power Pool