



Southwest Power Pool, Inc.

OPERATING RELIABILITY WORKING GROUP

Net Conference

April 4th 2017 8:30 AM – 12:00 PM (CDT)

• Action Items and Voting Record •

1. **Action Item: Send the ORWG proposed modifications of the SPP PSR to OTWG for formal review, and schedule a comment review at the next ORWG face to face meeting.**
2. **Action Item: Provide a demonstration for how PEAK RC is providing service for the HAA.**

Consent Agenda Items: March 01-02, 2016 ORWG Meeting Minutes and RR 219 ECC Compliance.

Ron Gunderson (Nebraska Public Power District) moved to approve the consent agenda and Todd Gosnell (Omaha Public Power District) seconded the motion. The motion carried without opposition or abstention.

RR 209 Control Status Update

Bryn Wilson (Oklahoma Gas and Electric Co.) moved to approve RR 209 Control Status Update with no reliability impact. Kyle McMenamain (Xcel Energy) seconded the motion. The motion carried with no abstentions and four oppositions.

IROL Re-Study Results

Ron Gunderson (Nebraska Public Power District) moved to endorse the IROL removal recommendation and Laurie Gregg (Lincoln Electric System) seconded the motion. The motion carried with no abstentions and four oppositions.



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• M I N U T E S •

Administrative Items / Attendance / Agenda Review

Agenda Item 1 – Call to Order

Chairman Allen Klassen (Westar Energy, Inc.) opened the meeting at 8:31AM on 4/04/2017.

Agenda Item 2 – Attendance

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

Agenda Item 3 – Agenda Review

Allen Klassen (Westar Energy, Inc.) reviewed the agenda and noted the items that would require action. Ron Gunderson (Nebraska Public Power District) requested to pull RR209 Control Status Update from the consent agenda for discussion.

Consent Agenda

Agenda Item 4 – For Consent Action

Allen Klassen (Westar Energy, Inc.) discussed the consent agenda items, which included the March 01-02, 2017 ORWG Meeting Minutes, and RR 219 ECC Compliance.

Ron Gunderson (Nebraska Public Power District) moved to approve the consent agenda and Todd Gosnell (Omaha Public Power District) seconded the motion. The motion carried without opposition or abstention.

Items pulled from the Consent Agenda

Agenda Item 4b RR 209 – Control Status Update

Casey Cathey (Southwest Power Pool) explained that RR209 is more of an awareness of the control modes, which will break out the control modes for offline, non-regulating, regulating, and manual. Erin Cathey (Southwest Power Pool) explained that the revision request was designed to expand the control status options to include startup, shutdown, and testing. Erin explained that we mainly see manual control status during startup, shutdown, and testing. Ron Gunderson (Nebraska Public Power District) stated that a phone call between the Generator Operator and the SPP BA should be required to understand how the resource will behave during the startup, shutdown, and testing time periods. Erin stated that this revision request does not limit the use of phone coordination. Mike Anderson (American Electric Power) stated that from a reliability prospective he doesn't see the phone calls being reduced, and believes that they should still take place.

Bryn Wilson (Oklahoma Gas and Electric Co.) moved to approve RR 209 Control Status Update with no reliability impact. Kyle McMenamain (Xcel Energy) seconded the motion. The motion carried with no abstentions and four oppositions.

Gary Plummer (City of Independence, MO) "IPL voted no on RR 209 because we don't see the benefit for the money having to be spent. Phone calls will not stop nor should they with these additional control modes."

Ron Gunderson (Nebraska Public Power District) "NPPD opposes RR209 because we do not believe the adding control status for startup/shutdown and testing is adequate to provide SPP as the BA enough information about the capabilities of units required for proper operation of the system. The control status does not provide information of how long the resource will be in each mode or how the unit will behave during either start-up/shut-down or testing. This information is necessary for SPP to have adequate reliability information about its resources. A phone call between the Generator Operator and the SPP BA will be required to gain the proper understanding of how the resource will behave during this time period. The resource will not be treated any differently by the market with the additional control statuses than if it were in "Manual" status, so from a market perspective, it does not appear the new control modes provide any actionable information to SPP. The costs on both SPP and the membership to implement this change do not seem to be warranted. The stated benefit of fewer phone calls will actually result in less information to SPP about the behavior of the resource and could be a detriment to the reliability of the region."

Mike Anderson (American Electric Power) "AEP & NPPD do not see justifiable expense costs without significant benefits for the Members, when SPP admittedly agrees the follow-up phone calls will continue between operators for reliability reasons. The simple Control Status enhancement for Startup/Shutdown and Testing from the Manual mode does not provide enough granular clarification beyond the highly vague status of a simple Startup/Shutdown and Testing mode to be of any true reliability benefit on the actual status of the generation resources as required by TOP-006 R1, even if electronically reported by this RR. AEP is concerned the RR could ultimately diminish the importance and effectiveness of verbal communication involving actual reliability status of the resource, between the SPP and Generator Operators, that cannot be adequately captured in a simple control signal. Simply reporting a high level control status change through electronic means without confirmation does not constitute the Standard applicable entities knowing actual reliability status for resource use and can lead to a lot of undue assumptions, which in turn could lead to a reliability issue. The current Manual control mode status alone already maintains such dialog without incurring additional expense or adding reliability value. AEP also commented that an already submitted corresponding Generator resource Market profile could adequately provide the Market and Dispatch awareness being sought without inadvertently diminishing the required reliability impact communications ultimately required."

Allan George (Sunflower Electric Power Corporation) "Sunflower opposes RR 209 and echo's the exact concerns by NPPD because we do not believe the adding control status for startup/shutdown and testing is adequate to provide SPP as the BA enough information about the capabilities of units required for proper operation of the system. The control status does not provide information of how long the resource will be in each mode or how the unit will behave during either start-up/shut-down or testing. This information is necessary for SPP to have adequate reliability information about its

resources. A phone call between the Generator Operator and the SPP BA will be required to gain the proper understanding of how the resource will behave during this time period. The resource will not be treated any differently by the market with the additional control statuses than if it were in “Manual” status, so from a market perspective, it does not appear the new control modes provide any actionable information to SPP. The costs on both SPP and the membership to implement this change do not seem to be warranted. The stated benefit of fewer phone calls will actually result in less information to SPP about the behavior of the resource and could be a detriment to the reliability of the region.”

Liaison Reports

Allen Klassen (Westar Energy, Inc.) announced the retirement of the Voltage Task Force due to the approval of RR213 Voltage Stability Control. Allen expressed appreciation to Mark Eastwood (City Utilities of Springfield) for leading the group as the Chairman. Mark Eastwood also expressed appreciation to Jason Tanner (Southwest Power Pool) his work associated with the VTF.

Agenda Item 5 – RR Process Changes.

Aaron Shipley (Southwest Power Pool) discussed the RR process and explained the changes made by BPWG. Aaron stated that BPWG removed the sub-process language, which effectively removes the primary goal of the changes approved at the last ORWG. Casey Cathey (Southwest Power Pool) explained that this RR process document was brought back to ORWG because of the BPWG comments. Casey explained that we wanted to make sure that ORWG was aware of the BPWG actions. Casey explained that ORWG doesn’t need to vote due to already voting on the previous version unless the ORWG wants to change their vote. Steve Gaw (The Wind Coalition) questioned MOPCs ability to overturn a revision request that was approved in the sub process. Allen gave an example using the data specification document. Allen stated that if using the sub process once the date specification was approved with an effective date of January 1, 2017 the document would become official. However, once the document goes to MOPC and it is determined that the changes are needed the document would go back before the ORWG, but we would still have an official document that’s effective to satisfy compliance. The ORWG determined that no action is needed to change the previous ORWG vote.

Agenda Item 6 – IROL Re-Study Results

Neil Robertson (Southwest Power Pool) explained the 2017 SPP IROL Re-Study Results and stated that FG5042 NWTPATLYDVAL, FG5215 VALLYDELDSAR, and FG5217 SARELHLYDVAL are being recommend for removal. Neil explained that for FG5042 NWTPATLYDVAL the IROL level loading is highly unlikely under current and normal system configurations. Neil explained that with the addition of Valliant – N.W. Texarkana 345kV it has greatly reduced the risk of IROL level loading, and would require extreme parallel flows and/or multiple EHV transmission outages to create the IROL level flows. Neil also discussed the result details for FG5215 VALLYDELDSAR, and FG5217 SARELHLYDVAL and stated that the addition of Valliant – N.W. Texarkana 345kV also has a positive impact. Neil explained that the Layfield 500/230 kV transformer between the Mt. Olive – Hartburg 500kV line segment further reduced the risk of IROL level flows. Neil stated that if ORWG endorses the results that the limit removal would become effective today 4/4/2017.

Ron Gunderson (Nebraska Public Power District) moved to endorse the IROL removal recommendation and Laurie Gregg (Lincoln Electric System) seconded the motion. The motion carried with no abstentions and four oppositions.

Agenda Item 7 – SPP PSR Plan.

Ron Gunderson (Nebraska Public Power District) discussed the SPP PSR and asked the group if they had any updates, concerns, or comments from the work performed at the face to face ORWG meeting in Omaha. Neil Robertson (Southwest Power Pool) explained that we will send the document to OTWG and ask for formal comments. Neil stated that once we receive formal comments from OTWG we will discuss them at the ORWG Little Rock face to face meeting, and seek official action from ORWG.

Action Item: Send the ORWG proposed modifications of the SPP PSR to OTWG for formal review, and schedule a comment review at the next ORWG face to face meeting.

Agenda Item 8 – ITP Manual.

Will Tootle (Southwest Power Pool) explained the changes to the ITP Manual, and stated that we added language to the Operational Model Development section to the document that states “State Estimator snapshots are archived following every valid state estimator solution (generally every 2-minutes). Select snapshots are converted from a node-breaker to a bus-branch representation as needed. Following the conversion, the near-real time topology, estimated generation and estimated load values are reflected in a Siemens .RAW formatted case. These cases are used to verify Persistent Operational Issues and validate proposed solutions mitigate the need.” Ron Gunderson (Nebraska Public Power District) recommended adding a description for how we select cases in the document. Allen Klassen (Westar Energy, Inc.) asked what the timing was for the document, and Will Tootle stated they are targeting the October MOPC with a version that is close to final by the July MOPC.

Agenda Item 9 – Replicated SPP EMS Server for TO/TOP’s to run studies.

Casey Cathey (Southwest Power Pool) discussed the idea of a replicated SPP EMS server for TO/TOP’s to run studies and explained that we are wanting to get a feel of interest from the membership for having a system to run state estimator studies. Casey stated that once we looked into what PEAK RC is doing we thought this was a good service to offer members. Tim Miller (Southwest Power Pool) explained the study tool enhancements, and stated that access to STNet stated estimator and contingency analysis would be available. SPP cases would be made available in a case library. SPP would save study cases to TOs to use when requested or deemed appropriate, and SPP would provide training on STNet for TOs in operator training sessions. Tim explained that this service would be make available using a virtual machine console that would be in the TOs operations room. The group expressed interested and ask is a demonstration was possible from PEAK RC.

Action Item: Provide a demonstration for how PEAK RC is providing service for the HAA.

Agenda Item 10 – Macomber Map.

Cody Parker (Southwest Power Pool) discussed the Macomber map and stated that the client was rebuilt to work in the VM client. Cody discussed the features of the Macomber map and stated that it was originally developed by ERCOT and was updated and enhanced by SPP staff. Cody explained that the map improves geospatial awareness and brings multiple data sources into a single application. Cody stated that SPP replaced eTarra-Vision with the Macomber map. Cody stated that the Macomber map

will provide visual indicators for line flows, generators, flowgate loading, kV averages, LMP averages, and alarming capabilities. Cody asked ORWG if they would be interested in having the Macomber map made available to the membership. ORWG expressed interest and requested a demo at the face to face in Little Rock.

Agenda Item 11 – ICCP Survey.

Tim Miller (Southwest Power Pool) provided a reminder of the need for items to be included in the ICCP survey. Bryn Wilson (Oklahoma Gas and Electric) suggested how do we tracked and notify changes. Tim stated that some of the questions we will ask for are what data is available such as voltage and reactive devices. Tim stated that we would provide a draft survey at the face to face meeting in Little Rock.

Agenda Item 12 – Overview of latest wind penetration record timeframe.

Casey Cathey (Southwest Power Pool) explained that we will discuss this topic at the face to face meeting in Little Rock in greater detail. Casey stated that we wanted to make ORWG aware of some of the ongoing efforts currently underway. Casey explained that SPP wind penetration has peaked at 54% and explained that Tatonga – Mathewson 345kV was showing up as a constraint, however the threshold limitation was met before the stability limitation.

OTHER ITEMS:

Agenda Item 13 – ORWG Member Topic List.

Jason Tanner (Southwest Power Pool) reviewed the list of topics for future meetings, and Jason requested the ORWG members to submit him any additional topics they would like covered.

Action Item Review

Agenda Items 18/19 – Summary of Action Items

See Page 1 Action Item list.

Agenda Items 20 – Q&A/Open Forum

Agenda Item 21 – Meeting Schedule

- a. 3/1-3/2/2017 Face-to-Face (Omaha, Nebraska) – CONFIRMED
- b. 4/4/2017 WebEx (Tues) 0830-1200
- c. 5/3 – 5/4/2017 Face-to-Face (Little Rock) – CONFIRMED
- d. 6/1/2017 WebEx (Thurs) 0830-1200
- e. 6/28 – 6/29/2017 Face-to-Face (TBD) – Discussion
- f. 8/3/2017 WebEx (Thurs) 0830-1200
- g. 9/7/2017 WebEx (Thurs) 0830-1200
- h. 9/27-28/2017 Face-to-Face (Detroit, MI) (ITC) - TENTATIVE
- i. 11/2/2017 WebEx (Thurs) 0830-1200
- j. 12/7/2017 WebEx (Thurs) 0830-1200



Agenda Item 18 – Adjourn

Chairman Allen Klassen (Westar Energy, Inc.) adjourned the ORWG at 11:45 AM (CST).

Respectfully Submitted,

Casey Cathey
Secretary

		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 McMenamain	M	Xcel Energy
x	6	Laurie Gregg	M	Lincoln Electric System
P	7	Allan George	M	Sunflower Electric Power Corporation
P	8	Jeff Wells	M	Grand River Dam Authority
x	9	John Stephens	M	City Utilities of Springfield
x	10	Todd Gosnell	M	Omaha Public Power District
x	11	Bryn Wilson	M	Oklahoma Gas and Electric Co.
P	12	Dennis Sauriol	M	American Electric Power
x	13	David Pham	M	Empire District Electric Company
a	14	Matthew Stoltz	M	Basin Electric Power Cooperative
x	15	Chance Myers	M	Western Farmers Electric Cooperative
x	16	Craig Speidel	M	Western Area Power Administration
x	17	Abu Elteriefi	M	ITC Holdings
x	18	Jay Patel	M	Kansas City Power & Light
x	22	Tanner New	P	Proxy for Allan George
x	19	Andrew Ridley	P	Proxy Jeff Wells
x	20	Mike Anderson	P	Proxy for Dennis Sauriol
x	21	Syed Ahmad	G	IEEE
x	23	Mark Eastwood	G	City Utilities of Springfield
x	24	Sing Tay	G	Oklahoma Gas & Electric
x	25	Chris Lyons	G	Customized Energy Solutions
x	26	Jim Krajecki	G	Customized Energy Solutions
x	27	Jake Burger	G	Nebraska Public Power District
x	28	John Allen	G	City Utilities of Springfield
x	29	Mike Rein	G	Xcel Energy
x	30	Kevin Ma	G	Oklahoma Gas and Electric Co.
x	31	John Boshears	G	City Utilities of Springfield
x	32	Steve Gaw	G	The Wind Coalition
x	33	Derek Book	G	PRPA
x	34	Rebecca Schwarz	G	American Electric Power
x	35	Phil Cox	G	American Electric Power
x	36	Jamie Hajek	G	NorthWestern Energy
x	37	Keeth Works	G	Southwestern Power Administration
x	38	Tracey Stewart	G	Southwestern Power Administration
x	39	Keith Carman	G	Tri-State Generation and Transmission
x	40	Ron Thompson	G	Nebraska Public Power District
x	41	Mark Robinson	G	Mercompliance
x	42	Tom Mayhan	G	Omaha Public Power District
x	43	Robert Hirschak	G	Cleco
x	44	Patti Kelly	S	Southwest Power Pool
x	45	Jason Tanner	S	Southwest Power Pool
x	46	Neil Robertson	S	Southwest Power Pool
x	47	Casey Cathey	S	Southwest Power Pool
x	48	Derek Hawkins	S	Southwest Power Pool
x	49	Margaret Q Adams	S	Southwest Power Pool
x	50	John Gunter	S	Southwest Power Pool
x	51	Brad Johnston	S	Southwest Power Pool
x	52	Kristen Kitchens	S	Southwest Power Pool
x	53	Jon Langford	S	Southwest Power Pool