



Southwest Power Pool, Inc.
OPERATING RELIABILITY WORKING GROUP
Net Conference
Thursday August 06, 2020 8:30 AM – 5:00 PM (CST)

• Action Items and Voting Record •

Agenda Item 5 – Consent Agenda “July 2, 2020 ORWG Meeting Minutes and RR415 BP7060 Clean up”
Ron Gunderson (Nebraska Public Power District) moved to approve the Consent Agenda, and Jeff Wells (Grand River Dam Authority) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 7 – SRTF AGC Proposal

Ron Gunderson (Nebraska Public Power District) moved to recommend that the ORWG support the SRTF recommendation for implementing the GE AGC proposal, and Allan George (Sunflower Electric Power Corporation) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 8 – Thunderhead Wind Project RAS

Jeff Wells (Grand River Dam Authority) moved to postpone the Thunderhead RAS ORWG approval until the outcome from the litigation associated with the Holt substation and R-Line project is known. Kyle McMenamini (Xcel Energy) seconded the motion. The motion carried without opposition and two abstentions.

Agenda Item 9 – RR414 Default Reliability Buffers to Mitigation SOL Exceedances

David Pham (Empire District Electric Company) moved to approve RR414 as presented, and Laurie Gregg (Lincoln Electric System) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 10 – RR403 Change to ITP Operational Model Development

Abu Elteriefi (ITC Holdings) moved to approve RR403 as presented, and Jeff Wells (Grand River Dam Authority) 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 (Eversource, Inc.) called the ORWG to order at 8:32 AM on 8/06/2020.

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 and Notification

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

Agenda Item 5 – Consent Agenda

The consent agenda contained the July 2, 2020 ORWG Meeting Minutes and RR415 BP7060 Clean up.

Ron Gunderson (Nebraska Public Power District) moved to approve the Consent Agenda, and Jeff Wells (Grand River Dam Authority) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 6 - Liaison Reports

6a – PFRTF Activities Update

Allan George (Sunflower Electric Power Corporation) contacted the members of the task force to determine their availability. Allan stated that due to COVID-19 impacts the group will need to regroup. Allan stated that the interim report still needs some additional work, and the PFRTF is assigning individual sections to various individuals. Allan stated that the PFRTF would be asking ORWG to consider some of the requirements originating from the NERC inverter-based groups and the BAL-003 drafting teams.

6b - SRTF Activities Update

Jeff Wells (Grand River Dam Authority) deferred the SRTF update to Agenda Item 7.

6c - OCMTF Activities Update

Doug Peterchuck (Omaha Public Power District) stated that RR414 will be discussed during today's meeting. Doug stated that the OCMTF is focusing on congesting management data analysis performance, and how contingencies are being managed. Doug stated that the OCMTF's review will look for contingency inconsistencies, and determine if incorrect definitions exist.

Agenda Item 7 – SRTF AGC Proposal

Zachary Sharp (Southwest Power Pool) stated that SPP approached GE about an estimate for a second AGC. Daniel Baker (Southwest Power Pool) stated that challenges exist with maintaining multiple islands. Daniel explained how AGC works and discussed at a high level how a second AGC would function in restoration

conditions. Daniel stated that SPP would need all entities with generating facilities to provide telemetry for frequency, which would allow SPP to manage multiple islands. Craig Speidel (Western Area Power Administration) stated that he was interested in how SPP would determine where all the islands are, and Daniel stated that SPP's EMS already has capabilities to calculate and determine where islands are located. Allen Klassen (Evergy, Inc.) inquired about the cost estimate, and Zachary stated the GE estimate was around \$175,000, and could be in-service by 2022 or 2023. Allen Klassen (Evergy, Inc.) stated that it is much cheaper to install frequency meters than changing an EMS.

Ron Gunderson (Nebraska Public Power District) moved to recommend that the ORWG support the SRTF recommendation for implementing the GE AGC proposal, and Allan George (Sunflower Electric Power Corporation) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 8 – Thunderhead Wind Project RAS

Tom Kay (Invenergy) discussed the proposed temporary remedial action scheme (RAS) for the Thunderhead wind facility. Tom stated that Thunderhead is a 300MW resource that is currently being built, which will interconnect into the NPPD Holt County substation. Tom stated that Thunderhead is targeted for commercial operations in December 2020. Ron Gunderson (Nebraska Public Power District) stated that the target date was not realistic due to substation work being halted at Holt County. Tom explained that a proposed 345kV line that was planned to go into service in the 3rd quarter of 2019 was delayed due to litigation and permitting issues. Ron stated that the Holt County Substation is tied in with the court action and the substation's fate is unknown at this time, which could result in Thunderhead having to find a new interconnection point. Allan George (Sunflower Electric Power Corporation) raised concerns about the number of obstacles facing the Thunderhead wind project. Ron asked about how the RAS would work when Thunderhead needs to be curtailed below 195 MW on a pre-contingent basis due to post-contingent loading on the Ft. Thompson transformers. Tom stated the resource will be registered in two parts, one part associated with the feeders that will be tripped by the RAS and the other part associated with the rest of the facility. SPP's programs will detect the portion of the facility that trips won't have an impact on the constraint for loss of the Holt County to Grand Island 345 kV line and therefore will not be dispatched down. The resource not associated with the feeders may be dispatched down by SPP's market system in response to congestion. Zachary Sharp (SPP Staff) stated that SPP can handle this instance but has some concern if there were many of this type of situation. Ron stated that he has issues approving this RAS when we don't know the final design. Jeff Wells (Grand River Dam Authority) asked what the driver is for approving a RAS with so many obstacles, and Tom stated that the RAS will show his investors that a path forward to operation at nameplate capacity exists. Jeff asked if Holt doesn't get built where would Thunderhead interconnect, and Tom stated that a new interconnection point would need to be determined. Allan George stated that ORWG has issues with the timing of the request not necessarily the design of the RAS.

Jeff Wells (Grand River Dam Authority) moved to postpone the Thunderhead RAS ORWG approval until the outcome from the litigation associated with the Holt substation and R-Line project is known. Kyle McMenamin (Xcel Energy) seconded the motion. The motion carried without opposition and two abstentions.

Craig Speidel (Western Area Power Administration) abstained "Not hearing any concerning issues or objections with the RAS itself, I feel the ORWG should have approved the RAS with conditions including the Holt Substation being built and placed into service. Doing so would have removed this from our future agendas while providing the wind project a better understanding where the ORWG stands on approving their proposed RAS."

Allen Klassen (Evergy) abstained.

Ron Gunderson (NPPD) had to leave the meeting prior to the vote.

Agenda Item 9 – RR414 Default Reliability Buffers to Mitigation SOL Exceedances

William Ragsdale (Southwest Power Pool) discussed the OCMTF efforts regarding RR414, and stated that the revision request will allow SPP to implement default effective limits that are less than the source ratings. William stated that the revision request will lead to effective limit activation consistency, and will enhance performance. William stated that the revision request will allow the RC to utilize pre-determined reliability margins for flowgates activated in real-time. William reviewed the RCWG comments within the revision request, and stated that the document was updated based on their feedback.

David Pham (Empire District Electric Company) moved to approve RR414 as presented, and Laurie Gregg (Lincoln Electric System) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 10 – RR403 Change to ITP Operational Model Development

Will Tootle (Southwest Power Pool) discussed revision request (RR) 403 and stated that the objective of the RR is to update language to support current capabilities already in place. Will stated that the current method for evaluating economic operational constraints is through the use of day-ahead reliability unit commitment models. Will stated that the current method is not feasible due to software changes that prevent historic model building needed for comparative analysis. Will stated that RR403 would not require additional software changes, and the updated language would support current capabilities. Will reviewed the redline changes in sections 2.4 Operational Model Development and section 5.3.4 Persistent Operational Solution Evaluations. Mark Eastwood (City Utilities of Springfield) asked if SPP is tracking voltage issues, and Will stated that SPP was. Allen Klassen (Evergy, Inc.) questioned if this RR would remove the need for the waver and Will stated that it would.

Abu Elteriefi (ITC Holdings) moved to approve RR403 as presented, and Jeff Wells (Grand River Dam Authority) seconded the motion. The motion carried without opposition or abstention.

Agenda Item 11 – Operator Training

Greg Reed (Southwest Power Pool) discussed the SPP 2020 and 2021 training schedule, and stated that because of the COVID-19 pandemic the SPP training department is working to become creative on ways to deliver courses to the footprint. Greg stated that SPP made the decision to cancel all instructor led training courses and began providing classes virtually. Greg stated that all of the courses presented today can be attended virtually at home or within a quarantine situation. Greg stated that SPP is offering 41 Virtual Instructor-Led courses, 3 REOP's, 9 eLearning classes, and 5 restoration drills.

Agenda Item 12 – Resource Alert Events Analysis

Kathryn Dial (Southwest Power Pool) provided a background and discussed the SPP resource alerts. Kathryn stated that resource alerts are typically issued when the BA has capacity concerns, and are based on forecasts or future system conditions. Kathryn stated that when SPP begins to forecast these conditions SPP could utilize the resources in reliability status for additional BA capacity or make longer lead commitments. Kathryn reviewed the 2019 and 2020 events and provided performance statistics. Garrett Crowson (Southwest Power Pool) reviewed the GAP analysis for the events in June & July and provided analysis for load, wind, and outages. Jeff Wells (Grand River Dam Authority) ask if rampable headroom decline was due to planned or forced outages, and Garrett stated that it was primarily due to forced outages. Jeff encouraged the use of long lead commitments

when necessary. Ron Gunderson (Nebraska Public Power District) stated that SPP made the right call to commit the long lead resources for the July event.

Agenda Item 13 – Distributed Energy Resources

Shannon Mickens (Southwest Power Pool) provided an overview of the efforts related to the System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG). Shannon stated that during the June 2018 Technical Committee meeting, the planning coordinator and oversight committee took action to approve the disbandment of the Distributed Energy Resource Task Force and Essential Reliability Services Working Group. The SPIDERWG was structured to further efforts addressing the impacts of aggregate distributed energy resources on the bulk power system. Shannon stated that the focus of the group will address MOD-032-1, IEEE 1547-2018, the EPRI DER Case Study, Arkansas Public Service Commission DER efforts, MDWG – ITP manual updates, and SPP DER planning coordination.

Agenda Item 14 – Generator Retirement BP Language

Jason Tanner (Southwest Power Pool) reviewed the MOPC action item “ORWG to revisit this Business Practice language from RR373: “Any Resource submitted for retirement that has provided energy to the Transmission System for more than four months over the previous 24 month period will require additional analysis to be performed.” The group should consider adding details to further outline the intent of the screening.” Jason stated that the business practice would not be in place until FERC approves RR373, however he stated that we should work towards developing language that is agreeable between working groups. Jason stated once FERC approves RR373 we will need to submit a new revision request that modifies the new business practice to satisfy the MOPC action item.

Agenda Item 15 – HITT S3 Status Review

Jason Tanner (Southwest Power Pool) provided a brief overview of the HITT S3 status, and stated that draft reports are included in the meeting material packet. Jason requested that ORWG members and non-members begin providing feedback regarding concerns to help address the S3 recommendations. Ron Gunderson (Nebraska Public Power District) suggested that we schedule a dedicated meeting to review the HITT S3 items. The ORWG agreed to an additional meeting on August 13, 2020 from 1PM – 5PM.

Agenda Item 16 – ORWG Member Topic List

The ORWG member topic list was provided in the meeting material packet.

Agenda Item 17 – Review of Open and Closure Pending Actions

The action item list was provided in the meeting material packet.

Agenda Item 18 – New Action Items

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

Agenda Item 19 – General Q&A/Open Forum

Agenda Item 20 – Meeting Schedule

- a. 8/13/2020 WebEx (Thurs) 1300-1700
- b. 9/3/2020 WebEx (Thurs) 0830-1200
- c. 9/30/2020 WebEx (Wed) 0830-1200
- d. 10/1/2020 WebEx (Thurs) 0830-1200
- e. 11/5/2020 WebEx (Thurs) 0830-1200



f. 12/3/2020 WebEx (Thurs) 0830-1200

Agenda Item 19 – Adjournment

Vice - Chairman Ron Gunderson (Nebraska Public Power District) adjourned the ORWG at 3:33 PM on 8/06/2020.

Respectfully Submitted,
Jason Tanner, Secretary



Operating Reliability Working Group
Meeting Attendance: 08/06/2020
M=Member, G=Guest, S=SPP Staff, P= Proxy

| | | Name | Status | Company |
|---|----|--------------------------------|--------|--------------------------------------|
| x | 1 | Allen Klassen, Chairman | M | Evergy, Inc. |
| x | 2 | Ron Gunderson, Vice Chairman | M | Nebraska Public Power District |
| a | 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 | Mark Eastwood | M | City Utilities of Springfield |
| x | 10 | Doug Peterchuck | M | Omaha Public Power District |
| P | 11 | Bryn Wilson | M | Oklahoma Gas and Electric Co. |
| x | 12 | Chris Shaffer | M | American Electric Power |
| x | 13 | David Pham | M | Empire District Electric Company |
| 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 | Keith Carman | M | Tri-State G&T |
| x | 18 | Kevin Ma Proxy for Bryn Wilson | P | Oklahoma Gas and Electric Co. |
| x | 19 | Ryan Kirk | G | American Electric Power |
| x | 20 | Brian Johnson | G | American Electric Power |
| x | 21 | Tyler Springer | G | American Electric Power |
| x | 22 | Ryan Koch | G | Basin Electric Power Cooperative |
| x | 23 | Jason Mazigian | G | Basin Electric Power Cooperative |
| x | 24 | Pablo Ruiz | G | Brattle Group |
| x | 25 | Joel Berger | G | Customized Energy Solutions |
| x | 26 | Chris Lyons | G | Customized Energy Solutions |
| x | 27 | Russ | G | City Utilities of Springfield |
| x | 28 | John Allen | G | City Utilities of Springfield |
| x | 29 | Mike Buyce | G | City Utilities of Springfield |
| x | 30 | Seth Cochran | G | DC Energy |
| x | 31 | Terry Volkmann | G | American Electric Power |
| x | 32 | Steve Gaw | G | The Wind Coalition |
| x | 33 | Matt Welch | G | Golden Spread Electric Cooperative |
| x | 34 | Tom Kay | G | Invenergy |
| x | 35 | Juan Hayem | G | Invenergy |
| x | 36 | bparker | G | Lincoln Electric System |
| x | 37 | Marc Zolnierz | G | mwenergy |
| x | 38 | Ron Thompson | G | Nebraska Public Power District |
| x | 39 | John Hare | G | Oklahoma Gas and Electric Co. |
| x | 40 | Tom Mayhan | G | Omaha Public Power District |
| x | 41 | Danielle Suppes | G | Sunflower Electric Power Corporation |
| x | 42 | Tanner New | G | Sunflower Electric Power Corporation |
| x | 43 | Jimmy.Wheeler | G | Southwestern Power Administration |
| x | 44 | Danny Johnson | G | Southwestern Power Administration |
| x | 45 | Keeth Works | G | Southwestern Power Administration |
| x | 46 | Marc Gomez | G | Southwestern Power Administration |
| x | 47 | Chris Bultsma | G | Western Area Power Administration |
| x | 48 | Steve Sanders | G | Western Area Power Administration |
| x | 49 | Garrick Nelson | G | Western Area Power Administration |
| x | 50 | Baryaley Sharwani | G | Western Area Power Administration |
| x | 51 | Sean Erickson | G | Western Area Power Administration |
| x | 52 | Ben Hammer | G | Western Area Power Administration |
| x | 53 | Carrie Dixon | G | Xcel Energy |
| x | 47 | Jason Tanner | S | Southwest Power Pool |
| x | 48 | Andrew Davies | S | Southwest Power Pool |
| x | 49 | Scott Brown | S | Southwest Power Pool |
| x | 50 | Erin Cathey | S | Southwest Power Pool |
| x | 51 | Kevin Bates | S | Southwest Power Pool |

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|---|----|-------------------|---|----------------------|
| x | 52 | Garrett Crowson | S | Southwest Power Pool |
| x | 53 | Jim Williams | S | Southwest Power Pool |
| x | 54 | Cody Parker | S | Southwest Power Pool |
| x | 55 | Jeff Rooker | S | Southwest Power Pool |
| x | 56 | Leslie Sink | S | Southwest Power Pool |
| x | 57 | Greg Reed | S | Southwest Power Pool |
| x | 58 | Kathryn Dial | S | Southwest Power Pool |
| x | 59 | Anthony Cook | S | Southwest Power Pool |
| x | 60 | Yasser | S | Southwest Power Pool |
| x | 61 | Douglas Clark | S | Southwest Power Pool |
| x | 62 | Kirk Hall | S | Southwest Power Pool |
| x | 63 | Daniel Baker | S | Southwest Power Pool |
| x | 64 | Brett Springfield | S | Southwest Power Pool |
| x | 65 | Trey Rosel | S | Southwest Power Pool |
| x | 66 | Frank Flores | S | Southwest Power Pool |
| x | 67 | shannon mickens | S | Southwest Power Pool |
| x | 68 | Dustin Courtright | S | Southwest Power Pool |
| x | 69 | Tammy Bright | S | Southwest Power Pool |
| x | 70 | Jef Rooker | S | Southwest Power Pool |