



Southwest Power Pool, Inc.
OPERATING RELIABILITY WORKING GROUP
Net Conference
Thursday February 06, 2020 8:00 AM – 12:00 PM (CST)

• Action Items and Voting Record •

ACTION ITEM: Develop criteria that RAS must meet in conjunction with the TWG.

Agenda Item 13 – Crossroads – Sagamore RAS

Jeff Wells (Grand River Dam Authority) moved to approve the Crossroads – Sagamore RAS with the TWG conditions:

- 1. Support of the Transmission Owner and acceptance of applicable compliance responsibilities,**
- 2. Contingent on execution of the GIA including the identified network upgrades,**
- 3. No more than two years from installation of RAS to install Tolk 2nd 345/230 kV Transformer and remove RAS.**

Chance Meyers (Western Farmers Electric Cooperative) seconded the motion. The motion carried with 1 opposition and 1 abstention.



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Thursday February 06, 2020 8:30 AM – 12:00 PM (CST)

• M I N U T E S •

Agenda Item 1 – Call to Order

Chairman Allen Klassen (Westar Energy, Inc.) called the ORWG to order at 8:32 AM on 2/06/2020.

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

Agenda Item 5a – Consent Agenda

No items were on the consent agenda.

Agenda Item 5b – Items Pulled from the Consent Agenda

Jason Tanner (Southwest Power Pool) pulled the January 2020 meeting minutes to make a correction and plans to return with an updated version for the March meeting.

Agenda Item 6 - Liaison Reports

6a – PFRTF Activities Update

Allan George (Sunflower Electric Power Corporation) stated that Julia Matevosjana (ERCOT) provided a presentation about high levels of Inverter-Based Resources and the impact to frequency control. The PFRTF also discussed primary frequency response and inertia and how BAL-001 impacts Inverter-Based Resources. The PFRTF will meet next on February 28, 2020.

6b - SRTF Activities Update

Jeff Wells (Grand River Dam Authority) stated that the SRTF has reset the group and during its next meeting they would be discussing what SPP is responsible for during restoration. Jeff stated that the group would meet next on March 3, 2020 where the group would discuss what SPP is capable of controlling.

6c - OCMTF Activities Update

Doug Peterchuck (Omaha Public Power District) stated that the OCMTF has made progress on the market buffers topic and they are planning to bring a presentation forward. Doug stated that progress has been made on the breaker to breaker contingency files and they are on Globalscape.

Agenda Item 7 – RR373 Generation Retirement

Kirk Hall (Southwest Power Pool) discussed the background for RR373 and stated that TWG did not approve the revision request. Kirk explained the issues associated with incorporating generation retirements into the ITP process. Kirk stated that the timeline is constrained which could cause issues to show up late. Kirk stated that when planning identifies an issue a long-term mitigation would be needed, however a short-term solution will also be developed. Kirk further explained the timing constraints and explained that after the 6 month assessment if the ITP process issues a NTC then a board of directors (BOD) approval would be required, which could further delay a generation retirement. Ryan Kirk (American Electric Power) stated that if the operations screening assessment is a “no” then we should not have to wait for BOD approval since a NTC wouldn’t be required. Kirk Hall stated that he would look into adding additional language to the process. Ron Gunderson (Nebraska Public Power District) stated that he would like to see the process include a short circuit ratio analysis to ensure there is adequate protection with the resource retired. Kirk stated that he could include it in a future revision of the process after implementation.

Agenda Item 8 – SPP RC Outage Coordination Methodology

The topic was postponed until the March 2020 ORWG.

Agenda Item 9 – WATT incentive proposal for “Grid-Enhancing Technologies”

Rob Gramlich (Grid Strategies, LLC) discussed a presentation that was provided to FERC. Rob stated that in the notice of inquiry to FERC on transmission incentives the commission believes they should act on grid enhancing technologies. Rob stated that WATT is focused on small projects that provide congestion relief and benefit savings. Rob explained that a shared savings approach would allow participating parties to keep a portion of the estimated congestion reduction savings and that FERC was urged to use technology-neutral definitions for grid enhancing technologies.

Agenda Item 10 – Topology Optimization Technology

Pablo Ruiz (New Grid) discussed topology optimization and stated that software can automatically find reconfigurations to reroute flows around congested elements while meeting reliability standards. Pablo explained the benefits for utilizing topology optimization in operations and stated that the frequency of breached intervals could be significantly reduced. Pablo showed results from a historical case and demonstrated how the system would react through the use of topology optimization. Kathryn Dial (Southwest Power Pool) discussed the SPP pilot program and stated that SPP selected 17 focus constraints on 20 cases to show a representative set of complex transmission system conditions. Kathryn stated that in some examples pre-contingent mitigation plans that reduced constraint flows by over 20% were quickly identified. Pablo explained that based on the results of the pilot program topology optimization can significantly reduce the frequency of breached constraints in operations without incurring additional market cost.

Agenda Item 11 – Black Start Resource Configuration Update

Terri Pyle (Oklahoma Gas and Electric) explained that Members have recently received feedback from the Regional Entity (RE) that their designated Black Start Resource (BSR) is not considered a valid Black Start Resource by the ERO. Terri stated that the configuration in question is where the designated BSR is a diesel generator that supplies power to a generator on-site. Terri reviewed EOP-005-2 and the NERC Glossary of Terms and stated they believe they are meeting the standards as defined. Terri explained that currently no documentation has been found that indicates the ERO has taken this position on the topic, however, research is still ongoing.

Agenda Item 12 – HITT M4 Uncertainty Product

The topic was postponed until the March 2020 ORWG.

Agenda Item 13 – Crossroads – Sagamore RAS

David Wheeler (Xcel Energy) discussed the Crossroads – Sagamore remedial action scheme (RAS) and stated that TWG approved the RAS. David explained that he is currently working with MRO for approval and stated that curtailment is only needed when both systems are unavailable. Ron Gunderson (Nebraska Public Power District) asked if the system could handle the wind farm output when Crossroads - Tolk is out of service. David stated that it could. Doug Peterchuck (Omaha Public Power District) stated that we should not be allowing a RAS to be put in place before network upgrades are complete. The congestion management process should be used in place of a RAS.

ACTION ITEM: Develop criteria that RAS must meet in conjunction with the TWG.

Jeff Wells (Grand River Dam Authority) moved to approve the Crossroads – Sagamore RAS with the TWG conditions:

4. Support of the Transmission Owner and acceptance of applicable compliance responsibilities,
5. Contingent on execution of the GIA including the identified network upgrades,
6. No more than two years from installation of RAS to install Tolk 2nd 345/230 kV Transformer and remove RAS.

Chance Meyers (Western Farmers Electric Cooperative) seconded the motion. The motion carried with 1 opposition and 1 abstention.

David Pham (Empire District Electric Company) Abstained

Ron Gunderson (Nebraska Public Power District) NPPD voted NO because we believe the required transmission identified in the Generator Interconnection Study needs to be in place prior to allowing the resource to connect. I do not believe a RAS is not proper mitigation for a single contingency. The tripping of the entire resource for a transmission line outage has the impact of increasing the outage rate of the resource. This means the system will have to recover from a trip of over 500 MW more often. There should be adequate reserves to cover this, but it does put more stress on the system. In addition, we do not believe that the usage of a RAS to trip remote non-consequential generation and interrupt firm transmission service is a valid mitigation for an N-1 thermal violation on a remote transformer. The entire objective of the planning process described in TPL-001-4 is to minimize the likelihood and magnitude of interruption of firm transmission service for contingency events. The continued use of a RAS to mitigate P0, P1 and P2 events is not consistent with TPL-001-4 or the development of System Operating Limits defined in FAC-010-3. We need to plan the SPP Transmission System such that we can withstand any N-1 single contingency event and still maintain applicable facility ratings on all equipment and maintain post-contingent voltages within acceptable limits. Whenever you have documented criteria violations following N-1 contingency events, you must plan for and build new network upgrades on a timely basis to address these deficiencies. These network upgrades need to be installed prior to allowing the resource to connect.

Agenda Item 14 – JOA Settlement Agreement Update for ORWG

The topic was postponed until the March 2020 ORWG.

Agenda Item 15 – ORWG Member Topic List

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

Action Item Review:

Agenda Item 16 – Review of Open and Closure Pending Actions

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

Agenda Item 17 – New Action Items

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

Agenda Item 18 – General Q&A/Open Forum

Agenda Item 19 – Meeting Schedule

- a. 3/5/2020 WebEx (Thurs) 0830-1200
- b. 4/08 - 4/09/2020 Face-to-Face (Amarillo, TX)(Xcel) – CONFIRMED
- c. 5/7/2020 WebEx (Thurs) 0830-1200
- d. 6/4/2020 WebEx (Thurs) 0830-1200
- e. 6/30 - 7/01/2020 Face-to-Face (Tulsa, OK)(GRDA) – CONFIRMED
- f. 8/6/2020 WebEx (Thurs) 0830-1200
- g. 9/3/2020 WebEx (Thurs) 0830-1200
- h. 9/30 - 10/01/2020 Face-to-Face (Little Rock, AR)(SPP) – CONFIRMED
- i. 11/5/2020 WebEx (Thurs) 0830-1200
- j. 12/3/2020 WebEx (Thurs) 0830-1200

Agenda Item 20 – Adjournment

Chairman Allen Klassen (Westar Energy, Inc.) adjourned the ORWG at 12:38 PM (CST) on 2/06/2020.

Respectfully Submitted,
Jason Tanner, Secretary



Operating Reliability Working Group
Meeting Attendance: 02/06/2020
M=Member, G=Guest, S=SPP Staff, P= Proxy

		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	Mark Eastwood	M	City Utilities of Springfield
x	10	Doug Peterchuck	M	Omaha Public Power District
x	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	Tyler Springer	G	American Electric Power
x	19	Jim Krajecki	G	Customized Energy Solutions
x	20	Robert Safuto	G	Customized Energy Solutions
x	21	Jeff Knottek	G	City Utilities of Springfield
x	22	Ryan Koch	G	Basin Electric Power Cooperative
x	23	Rob Gramlich	G	Grid Strategies, LLC.
x	24	Pablo Ruiz	G	Brattle Group
x	25	Chris Lyons	G	Customized Energy Solutions
x	26	David Wheeler	G	Xcel Energy
x	27	Seth Cochran	G	DC Energy
x	28	Ryan Kirk	G	American Electric Power
x	29	Terri Pyle	G	Oklahoma Gas and Electric Co.
x	30	John Hare	G	Oklahoma Gas and Electric Co.
x	31	Kevin Ma	G	Oklahoma Gas and Electric Co.
x	32	Sing Tay	G	Oklahoma Gas and Electric Co.
x	33	Joshua Wakeam	G	Oklahoma Gas and Electric Co.
x	34	Neal Faltys	G	Omaha Public Power District
x	35	Amanda Underwood	G	Omaha Public Power District
x	36	Loren Ditsch	G	Omaha Public Power District
x	37	Tom Mayhan	G	Omaha Public Power District
x	38	Ron Thompson	G	Nebraska Public Power District
x	39	Charles Lande	G	NextEra Energy
x	40	George Schureck	G	NextEra Energy
x	41	Jimmy Wheeler	G	Southwestern Power Administration
x	42	Keeth Works	G	Southwestern Power Administration
x	43	Heather Starnes	G	Healy Law Offices
x	44	John Allen	G	City Utilities of Springfield
x	45	Bruce Grabow	G	Locke Lord
x	46	Matt Welch	G	Golden Spread Electric Cooperative
x	47	Jason Mazigian	G	Basin Electric Power Cooperative
x	48	Chad Priar	G	Southern Star
x	49	Simon Mahan	G	Southern Renewable Energy Association
x	50	Chris Bultsma	G	Western Area Power Administration
x	51	Carrie Dixon	G	Xcel Energy
x	52	Baryaley Sharwani	G	Western Area Power Administration
x	53	Ben Hammer	G	Western Area Power Administration
x	54	Ellen Watkins	G	Sunflower Electric Power Corporation

x	55	Paul Mehlhaff	G	Sunflower Electric Power Corporation
x	56	Jason Tanner	S	Southwest Power Pool
x	57	Anthony Cook	S	Southwest Power Pool
x	58	Charles Cates	S	Southwest Power Pool
x	59	Cody Parker	S	Southwest Power Pool
x	60	Daniel Baker	S	Southwest Power Pool
x	61	Doug Clark	S	Southwest Power Pool
x	62	Derek Hawkins	S	Southwest Power Pool
x	63	Serhat Guney	S	Southwest Power Pool
x	64	Jeff Rooker	S	Southwest Power Pool
x	65	Jim Williams	S	Southwest Power Pool
x	66	Kathryn Dial	S	Southwest Power Pool
x	67	Kirk Hall	S	Southwest Power Pool
x	68	Ricky Finkbeiner	S	Southwest Power Pool
x	69	Raleigh Mohr	S	Southwest Power Pool
x	70	Ryan Schoppe	S	Southwest Power Pool
x	71	Terry Oxandale	S	Southwest Power Pool
x	72	Temper Williams	S	Southwest Power Pool
x	73	Will Tootle	S	Southwest Power Pool
x	74	Zachary Sharp	S	Southwest Power Pool
x	75	Neil Robertson	S	Southwest Power Pool
x	76	Brett Springfield	S	Southwest Power Pool