

Southwest Power Pool, Inc.

VOLTAGE TASK FORCE

Net Conference

Thursday March 31st 2016

8:30 a.m. - 12:00 p.m. (CDT)

• Action Items and Voting Record •

1. Host a closed session for TF members at the face to face meeting.
2. VTF/SPP Staff should publish requirements for online VSAT in 2017 by January 1, 2017.
3. VTF to develop requirements for VS SOL.

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• M I N U T E S •

Administrative Items / Attendance / Agenda Review

Chairman Mark Eastwood (City Utilities of Springfield, Mo) opened the VTF at 8:01 AM (CST) on 3/2/2016.

Harvey Scribner (Southwest Power Pool) called attendance. All members were on the call with the exception of Rouslan Tzartze (EDPR). Mike Grimes called in as proxy for Rouslan.

Mark Eastwood reviewed the agenda.

Consent Agenda

No Items were presented for the Consent Agenda.

Approval Items and Staff Reports for Discussion

Agenda Item 5 – Voltage Task Force (VTF) Introduction

Jason Tanner (Southwest Power Pool) Introduced the Voltage Task Force (VTF) and asked each member to provide individual concerns and the direction the VTF should move toward. Mark Eastwood (City Utilities of Springfield, Mo) stated he would like to see increased coordination and better accuracy between the operations and planning models. Mark also stated that we should focus on voltage coordination efforts between entities, and Mark commented that he would be interested in a presentation on the interworking of the STRUC. Jim Useldinger (South Central MCN) stated that he is concerned that voltage control is lacking and we need greater awareness of what is happening outside our individual control areas. Jim mentioned the 2006-2007 Voltage Reactive and Management Task Force and stated that the VTF should address operational voltage criteria and limits for consistency across SPP area. Kevin Harris (ITC Holdings) stated he would like to see the VTF focus on increased model accuracy that achieves a better benchmark planning model against operations performance. Mark Ahlstrom (NextEra Energy) stated he would like to have a greater understanding of how renewables are integrated, and is very interested in the educational aspects that the group could provide. Kevin Ma (Oklahoma Gas and Electric) stated he is interested in what real-time voltage issues other members have experienced. Kevin stated that the group should consider the 69kV system, and also expressed interest for how SPP and TOPs will coordinate Real-Time voltage stability issues. Clinton Bruhn (Lincoln Electric System) expressed interest about a focus on resource planning, system protection, and operational reliability studies. Clinton suggested that considerations should be made around low voltage issues with transfers and high voltage issues for equipment health. Clinton also stated that SPP should consider regional voltage coordination with the inclusion of the 69kV system. Kyle Drees (Westar Energy) also suggested that high and low voltage scenarios are becoming more of a concern. Dustin Betz (Nebraska Public Power District) stated that he would like to see the VTF focus on large scale power transfers, voltage stability, rotor angle and transient stability. Dustin also stated that

he would like to bridge the gap between the generator interconnection studies and operations. Mike Grimes (EDPR) expressed interest in the operational compliance rules for wind integration, and stated that high voltage control is important. Mike stated that current studies are inadequate for showing system voltage swings, and current installed equipment can provide dynamic reactive support. Mike stated that the Wind industry would like to show what the equipment can do, but transmission equipment will have to fill the gap on additional system requirements. Mike stated that the VTF needs to identify challenges on the SPP footprint and communicate the identified issues to planning studies. Neal Faltys (Omaha Public Power District) commented that he would like to see the VTF focus on voltage control, how to handle coal retirements, and seams voltage coordination with MISO.

Agenda Item 6 – Charter and Scope of Work

Jason Tanner (Southwest Power Pool) reviewed the VTF charter and scope of work with the VTF membership, and the group held discussions around each item. Al Tamimi (Sunflower Electric Power Corp) asked about the definitions of reliable and secure, Casey Cathey (Southwest Power Pool) explained that we should focus on N-1,+/- 10% for emergency conditions, and +/-5% for normal operating conditions. Jason Tanner (Southwest Power Pool) explained that the BES could be reliable under normal operating conditions, but under contingency the BES could exceed a stability limitation. Jason stated that through new stability monitoring tools we could provide visibility and allow the operator to control the system to the identified system stability margins. Jason stated that in some cases a post contingent stability limit could occur before an identified thermal limitation. Mark Eastwood (City Utilities of Springfield, Mo) asked about the online VSAT requirements, and stated that staff should publish requirements by January 1, 2017. Kyle McMenamain (Xcel Energy) stated that he would like to see the VTF develop requirements for Wind turbines that can follow a voltage schedule. Kyle stated that the VTF would need to modify the GIA, and by doing so it would allow for an additional tool beyond the current use of a power factor schedule.

Agenda Item 7 – VTF Items for Consideration

Mark Eastwood (City Utilities of Springfield, Mo) provided a list of items for the VTF to consider. The group review the list, and Jason Tanner (Southwest Power Pool) stated that he would like to prioritize the list into goals for the VTF. Casey Cathey (Southwest Power Pool) discussed generalized DC for voltage consideration in market model, and stated he is working with MWG and will keep the VTF informed. Casey stated that SPP might be the first market to consider voltage. The VTF could identify value for project. Casey also discussed voltage stability analysis by operations, and how it would work with the market solution. Casey stated that the VTF would need to develop criteria for voltage stability system operating limits. Dustin Betz (Nebraska Public Power District) discussed how the VTF would consider cost and benefits, and Jason Tanner stated that the group primary focus is on reliability for both operations and planning. Jason stated that ESWG would be the form to consider economic details. Neil Robertson (Southwest Power Pool) stated that the VTF will focus on physics and bring to surface the technical details behind the voltage issues.

Agenda Item 8/9 Action Item Review

Action Item: Host a closed session for TF members at the face to face meeting.

Action Item: VTF/SPP Staff should publish requirements for online VSAT in 2017 by January 1, 2017.

Action Item: VTF to develop requirements for VS SOL.

Agenda Item 10 Q&A/Open Forum

No additional items discussed

Agenda Item 11 – Meeting Schedule

- a. 4/27 – 4/28/2016, Face-to-Face, Dallas, TX AEP Office
- b. 5/26/2016, Net Conference, 0830-1200
- c. 6/29/2016, Net Conference, 0830-1200
- d. 7/27 – 7/29/2016, Face-to-Face, Kansas City (Tentative)
- e. 8/30/2016, Net Conference, 0830-1200
- f. 9/28/2016, Net Conference, 0830-1200
- g. 10/26/2016, Net Conference, 0830-1200

Agenda Item 23 – Adjourn

Chairman Mark Eastwood (City Utilities of Springfield, Mo) adjourned the VTF at 11:55 AM on 3/31/2016.

Respectfully Submitted,

Jason Tanner
Secretary



Operating Reliability Working Group
Meeting Attendance: 3/31/2016
M=Member, G=Guest, S=SPP Staff, P= Proxy



		Name	Status	Company
x	1	Chariman Mark Eastwood	M	City Utilities Springfield
x	2	Jim Useldinger	M	South Central MCN
x	3	Kevin Harrison	M	ITC Holdings Corp.
x	4	Sakshi Mishra	M	AEP Service Corporation
x	5	Mark Ahlstrom	M	NextEra Energy Resources, WindLogics
x	6	Feng (Kevin) Ma	M	Oklahoma Gas and Electric
P	7	Rouslan Tzartzev	M	EDP Renewables
x	8	Clinton Bruhn	M	Lincoln Electric System
x	9	Kyle Drees	M	Westar Energy
x	10	Dustin Betz	M	Nebraska Public Power District
x	11	Neal Faltys	M	Omaha Public Power District
x	12	Mike Grimes	P	Proxy for Rouslan Tzartzev
x	13	Sarah Pettus	G	The Wind Coalition
x	14	Al Tamimi	G	Sunflower Electric Power Corporation
x	15	Bryn Wilson	G	Oklahoma Gas and Electric Co.
x	16	Jamie Hajek	G	NorthWestern Energy
x	17	Jim Jacoby	G	American Electric Power
x	18	John Allen	G	City Utilities of Springfield
x	19	Allan George	G	Sunflower Electric Power Corporation
x	20	Kyle McMenamin	G	Xcel Energy
x	21	Robert Hirschak (Cleco)	G	Cleco
x	22	Casey Cathey	S	Southwest Power Pool
x	23	Temper Williams	S	Southwest Power Pool
x	24	Mike Nugent	S	Southwest Power Pool
x	25	Harvey Scribner	S	Southwest Power Pool
x	26	Jason Tanner	S	Southwest Power Pool
x	27	Neil Robertson	S	Southwest Power Pool