

Southwest Power Pool, Inc.
HOLISTIC INTEGRATED TARIFF TEAM
SPP Holistic Integrated Tariff Team Meeting
Omaha, NE
July 31 – August 1, 2018
• M E E T I N G M I N U T E S •

1. Call to Order and Administrative Items

Chair Tom Kent (NPPD) called the July 31 meeting to order at 12:30 PM.

Meeting minutes from the July 9 HITT meeting were approved as drafted. (The motion passed unanimously.)

2. Welcome & Introductions

Kent stated that this meeting would conclude the staff education and move into stakeholder presentations related to Issue No. 1A.

3. HITT Carry over Requests for Information Cost Implications & Responsibilities under Requested Tariff Studies (RFI 29 & 42)

Charles Locke (SPP) provided requested information from 3a and 3b regarding Generator Interconnection and Sponsored Upgrade Costs. He also shared information related to Schedule 9 costs and a review of all costs paid by interconnecting customers by host TOs.

4. Storage (Generation, Transmission, or Load)

a. Order 845 Overview (RFI 49)

Tessie Kentner (SPP) provided an update on Order 845 regarding the ability of an electric storage facility to request to only be a transmission solution and not generator. Compliance filing is due November 5, 2018 and language will be ready for the October 2018 MOPC and SPP BOD.

b. Information about Battery Technology (RFI 39)

Richard Dillon (SPP) provided an update on batter storage technology and the facility types this technology can provide service to (generator, load or transmission).

c. Stakeholder Presentation (RFI 25 & 30)

Holly Carias (NextEra) presented information on solar/storage (packaged) Generator Interconnections. Holly also provided information on the use of storage as a transmission asset to address other HITT-identified issues resulting from Order 841.

5. Stakeholder Presentations on HITT Topic 1(a) and 1(b)

HITT Goal for Issue No. 1A: Develop high-level policy recommendation as to how SPP can align its transmission planning processes and stakeholders' resource adequacy needs with SPP's Integrated Marketplace and tariff requirements.

HITT Goal for Issue No. 1B: Review existing transmission cost allocation methodologies in light of the implementation of the Integrated Marketplace and significant changes in generating

resources. Upon completing the review, and in consideration of recommendations from the HITT for Issue No. 1, the Team will develop any needed high-level cost allocation policy recommendations for the consideration of the RSC/CAWG.

- a. Steve Gaw (Wind Coalition) presented information regarding transmission planning recommendations for market dispatch, seams and interregional planning, resource dedication, GI issues and cost allocation.
- b. Joel Dagerman and Jim Hotovy (NPPD) presented the HITT members with information regarding Issue No. 1B: Transmission Cost Allocation Methodologies. Dagerman and Hotovy discussed compensation for Transmission Utilization associated with zonal exports, and cost shifts related to Tariff inclusion of existing low voltage facilities.
- c. Brett Hooton (Gridliance) provided the HITT with information regarding SPP's existing transmission cost allocation methodologies since the implementation of the Integrated Marketplace and subsequent changes in generating resources. Hooton also presented a proposal for a new Cost Allocation methodology.

6. HITT RFIs

- a. Wind Data (RFI 46, 47 & 48)
- b. Curtailement Data (RFI 53)
CJ Brown (SPP) presented information regarding the number of Quick Start gas generators, as well as the statistical spread on wind forecasting errors. Brown also provided a detailed analysis and breakdown of wind data.
- c. FERC Order 844 (RFI 50)
Tessie Kentner (SPP) provided an update on SPP's response to Order 844. SPP's compliance filing is due September 7, 2018 with Tariff changes effective 120 days following the compliance filing. Information was also provided regarding the proposals in RR310.
- d. ERIS/NRIS History Memo (RFI 60)
Tessie Kentner (SPP) provided a memo regarding the history of ERIS and NRIS in SPP.
- e. ERIS/NRIS Planning Data (RFI 54, 55, 56, 57, & 58)
Antoine Lucas (SPP) provided data on the number of dual ERIS/NRIS requests and issues with timing delay costs and GIITF. Antoine also provided an overview of other RTO/ISO responses to ERIS/NRIS, as well as information regarding ERIS study parameters (i.e., issues with % vs. MW overload, generators in the models vs. not in the models). Antoine also presented information regarding the history of ERIS/NRIS/Firm and data for each type of service in the SPP footprint.
- f. Sponsored Upgrades and RR 261 (RFI12)
Antoine Lucas (SPP) provided an update and clarification on Sponsored Upgrades and Tariff revisions proposed in RR261. Antoine also provided information regarding planning processes, sponsored upgrade processes, zonal reliability processes and FERC approved local planning processes.

7. HITT Brain Storming "Solution Discussion for Agenda Item 1A"

Paul Suskie (SPP) moderated discussion among HITT members in order to begin the process of identifying potential areas for recommendations for the SPP BOD on Issue 1A, as listed below:

- a. ERIS/NRIS combine to one product or differentiate between products
- b. NRIS has capacity rights under a deliverability model
- c. Look at process between transmission service rights modeling and candidate ARRs
- d. ERIS injection charge for ERIS service with no firm transmission service in place

- e. Market deliverability to network load is deemed firm; generation planned into market; ability for all network load to be served by the market;
- f. All resources are studied deliverable to the market without having to obtain specific transmission service;
- g. More rigorous thresholds for ERIS
- h. Align planning models with market models
- i. Injection charges for all generation to help compensate local transmission zone
- j. Consolidation of planning processes
- k. Pseudo ties incentives
- l. Bringing new customers of renewables in SPP into equation of facility cost construction and cost allocation to extent not already there
- m. Communication on both sides of the seam
- n. Issue 2 - Identify additional products and services necessary to ensure delivery of electricity to the load (an objective to eliminate make whole payments)
- o. Specificity around economic planning; require economic justification for transmission expansion for non-firm or as available system use
- p. Incent generator owners to give quicker knowledge to SPP on retirement of units
- q. Should there be a separate transmission charge for guaranteeing delivery from a specific resource? Operational discussion; market function or transmission function?
- r. Make changes so that firm transmission service provides congestion hedge for delivery that was originally intended. Not about the portfolio – people ask for specific TSRs source to sink for a reason;
- s. Mitigate advantage candidate ARRs with small impact factors on constrained elements have over those with large impact factors
- t. Additional notification of outages and better outage coordination so impacted generators have ability to talk to transmission owners and also payment to move or expedite outage in a way that does not violate FERC standards of conduct;
- u. Hybrid sponsored upgrades: allowing buy down of economic project in order to meet threshold
- v. Resource planning and SPP's input into ERS; Determine right amount and right type of resources;
- w. Market products that incent the generation mix that is necessary in the footprint; loads either pay for it or provide it; Market services we have provide tools necessary to operate the system in order to incent parties to come to the table;
- x. Establish greater consistency in local planning criteria and processes; ex: TOs in each zone have same local criteria; ex: host TOs establish planning criteria for consistency;
- y. Prioritization of lines necessary to make whole of market work well;
- z. Determine resource adequacy on region wide coincident peak basis
- aa. Storage: discussion of new technology; do we want to recommend policy changes to support the appropriate deployment of storage technologies? Issues beyond Order 841;
- bb. Issue 2 – market mechanisms to deploy products that are valued or needed ensuring new technologies are eligible to participate/no disincentives to restrict participation; what are the products needed to do that? Identify real market needs and put value on it to use in resource planning; give SPP more options that market has value;
- cc. Better enable/facilitate export of excess supply in SPP such that both sellers and buyer benefit at no harm to SPP ratepayers; temporal export?

8. Review / Update of the RFI list and parking lot items

July 31 RFIs					
61	Question in transmission planning/service	1B	How is the determination of need determined?	Charles Locke/Antoine Lucas	See 68
62	Look at Load ratio share of Schedule 11	1B	Schedule 11 ATRR changes that could result from zone combinations;	Charles Locke	
August 1 RFI					
63	Curtailement Data	1B & 2	Provide the VER curtail data chart with wind installation & new wind coming on line.	CJ/ Richard Dillon	
64	ERIS/NRIS	1B & 2	How far can SPP go with FERC's approval regarding ERIS and NRIS service? Other RTOs?	Tessie Kentner	
65	PJM ERIS/NRIS	1B	What has PJM implemented from ERIS/NRIS? How implemented? Has ERIS/NRIS in PJM been combined?	Richard Dillon/PJM	
66	Planning Zones	1B	Bill Grant's question: How are the zones created (Slide 8 RFI 54... presentation).	Antoine Lucas	
67	ERIS Data	1B	Breakdown of ERIS in-service generators (firm service, etc.) Antoine Lucas Slide 2 (RFI 54 ... presentation); Antoine to present bubble chart;	Antoine Lucas	
68	Sponsored Upgrades	1B	Question about "need" tests to determine eligibility for credits	Charles Locke/Antoine Lucas	
69	Compensation	1A/1B	Look at compensation for incumbent TOs	Members Companies	
70	TWG Flowgate	1A	Understanding of the TWG flowgate processes regarding reservation of TRM on flowgates	Antoine Lucas	
71	SAWG presentation	1A	Presentation SAWG Efforts	Brand Hans	August 2018

9. Other Items

10. Next Meetings

2018 HITT Team Meetings

- August 21, 2018 - Dallas, TX
- August 22, 2018 - Dallas, TX
- September 5, 2018 - Dallas, TX
- November 6, 2018 - Dallas, TX
- December 5, 2018 – TBD

11. Adjournment

The meeting was adjourned at 2:00 PM on August 1.

HITT Team Members Participating

Tom Kent, Chair (NPPD)

Rob Janssen (Dogwood Energy)



Shari Albrecht (KCC)

Dennis Grennan (NPRB)

Jim Eckelberger (SPP Director)

Graham Edwards (SPP Director)

Denise Buffington (Evergy)

Holly Carias (NextEra)

Dennis Florum (LES)

Bill Grant (Xcel SPS)

Richard Ross (AEP)

Al Tamimi (Sunflower) Stuart Lowry - Proxy

Greg McAuley (OGE)

Mike Risan (BEPC)

Brett Leopold (ITC)

Mike Wise (GSEC)

Cindy Ireland (APSC) – CAWG Liaison

SPP Staff Attendance

Paul Suskie, Staff Secretary

Antoine Lucas

Tessie Kentner

Luke Hill

CJ Brown

Richard Dillon

Charles Locke

Lanny Nickell

July 31 Participants

Andrew Lachowsky (AECC)
Ben Bright (SPP)
Betsy Beck (AWEA)
Bill Leung (NPRB)
Blaine Erhardt (BEPC)
Brett Hooton (Gridliance)
Brian Johnson (AEP)
Brian Rounds (AESL)
Brian Tobin (NEE)
Bruce Sherr (SPP Director)
Calvin Daniels (WFEC)
Carrie Dixon (Xcel)
Charles Lande (NextEra)
Chris Cranford (SPP)
Chris Lyons (Customized Energy Solutions)
Christine Aarnes (KCC)
Chuck Hutchison (NPRB)
David Kays (OG&E)
David Mindham (ITC)
Derek Sunderman (Tradewind Energy)
Dirk Shulund (WAPA)
Don Frerking (KCPL Westar)
Evan Wilcox (AEP)
Greg Garst (OPPD)
Harry Skilton (SPP Director)
Heather Starnes (MJMEUC/KMEA)
J.P. Maddock (BEPC)
James Bailey (SPP)
Jason Mazigian (BEPC)
Jay Caspary (SPP)
Jeff Knottek (CUS)
Jeff Riles (Enel)
Jeremy Severson (BEPC)
Jim Hotovy (NPPD)
Jim Jacoby (AEP)
Joel Dagerman (NPPD)
John Boshears (CUS)
John Krajewski (NPRB)
John Stephens (CUS)
Jon Sunneberg (NPPD)
Kass Portra (WAPA)
Keith Collins (SPP MMU)
Kelsey Allen (SPP)
Kenny Hale (CUS)
Lisa Szot (Enel)
Marc Crisson (SPP Director)
Marisa Choate (SPP)
Michael Duenes (KCC)
Mike Moffet (SEPC)
Pam Bonrud (NW Energy)
Patrick Clarey (FERC)
Patti Kelly (SPP)
Phyllis Bernard (SPP Director)
Rachana Vidhi (NEE)
Robert Pick (NPPD)
Robert Tallman (OG&E)
Ruth Sakya (SPS)
Scott Bents (IUB)
Shawn Geil (KEPCo)
Shawnee Claiborn-Pinto (PUCT)
Steve Rowley (BHE)
Stuart Lowry (SEPC)
Tim Hall (Southern Power)
Tim Owens (NPPD)
Tom Christiansen (BEPC)
Trent Carlson (Gridliance)
Wes Berger (Xcel)

August 1 Participants

Aaron Doll (EDE/LU)
Al Tamimi (SEPC)
Alex Crawford
Alfred Busbee (SPP)
Ben Bright (SPP)
Bernie Liu (Xcel)
Bill Dowling (MW Energy)
Bill Leung (NPRB)
Blaine Erhardt (BEPC)
Brian Rounds (AESL)
Calvin Daniels (WFEC)
Carolyn Wetterlin (Xcel)
Carrie Dixon (Xcel)
Charles Cates (SPP)
Charles Hendrix (SPP)
Chris Cranford (SPP)
Christine Aarnes (KCC)
Dacia Hargraves (OMPA)
David Kays (OG&E)
David Mindham (ITC)
Denise Martin (SPP)
Dennis Grennan (NPRB)
Dennis Reed
Dirk Shulund (WAPA)
Don Frerking (KCPL Westar)
Eric Laverty (Aces Power)
Evan Wilcox (AEP)
Greg Garst (OPPD)
Greg Sorenson, SPP MMU
Harry Skilton (SPP Director)
Jack Madden (GDS Associates)
Jason Mazigian (BEPC)
Jason Schmidt (NEE)
Jay Caspary (SPP)
Jeremy Severson (BEPC)
Jim Krajecki (CES)
Joel Dagerman (NPPD)
John Boshears (CUS)
John Krajewski (NPRB)
John Stephens (CUS)
John Tennyson (CUS)
John Varnell (TNSK)
Jon Sunneberg (NPPD)
Jordan Schmick (Xcel)
Justin Hinton (SPP)
Kass Portra (WAPA)
Kelsey Allen (SPP)
Kenny Hale (CUS)
Kimberly O'Guinn (APSC)
Lane Sisung (LPSC)
Lee Elliott (SPP)
Lisa Szot (Enel)
Lyle Larson (Balch)
Marisa Choate (SPP)
Mary Ann Zehr (TSGT)
Maurice Moss (CUS)
Meena Thomas
Melie Vincent (OMPA)
Mo Awad (Evergy)
Patrick Clarey (FERC)
Paul Malone (NPPD)
Raman (Enel)
Richard Seide (Apex)
Rob Janssen (Dogwood Energy)
Robert Pick (NPPD)
Robert Safuto (Customized Energy Solutions)
Robert Tallman (OG&E)
Sam Enfield
Sam Loudenslager (SPP)
Scott Bents (IUB)
Shawnee Claiborn-Pinto (PUCT)
Steve Gaw (Wind Coalition)
Steve Purdy (SPP)
Stuart Lowry (SEPC)
Tim Hall (Southern Power)
Tim Owens (NPPD)
Tom Hestermann (SEPC)
Tom Kleckner (RTO Insider)
Wes Berger (SPS)