



**Southwest Power Pool**  
**2010 SPP SPRING PLANNING WORKSHOP**  
**May 27, 2010**  
**Embassy Suites – Little Rock, Arkansas**

**• Summary of Action Items •**

1. Charles Cates – Staff will present something on siting of needed resources for member review before the August Planning Summit.
2. Keith Tynes - Advises staff to document the 'Logic Trail' regarding this decision by ESWG and notify stakeholders when posted.
3. Keith Tynes – Staff will consider performing a sensitivity study of 2010 STEP with Priority projects vs the current 2010 STEP without Priority projects.
4. Ben Roubique – Staff will look into how coal will be operated in the base-case to reduce/eliminate cycling and report at the next planning summit.



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**• M I N U T E S •**

**Agenda Item 1 – Welcome and Introductions**

Meeting Begins: 10:02 AM

The following members were in attendance or represented by proxy:

**In Person:**

Al Tamimi – SEPC  
Alan Myers – ITC Great Plains  
Andres Arbizu – GDF Suez  
Bary Warren – EDE  
Ben Roubique – SPP  
Brad Finkbeiner – SPP  
Brad Schwarz – E.ON Climate & Renewables  
Brandon Hentschel – SPP  
Brenda Fite – SPP  
Bruce Cude – XCEL/SPS  
Cary Frizzell – SPP  
Charles Cates – SPP  
Charles Hendrix – SPP  
Chris Karamales – SPP  
David Kelley – SPP  
Debashis Bose – Black and Veatch  
Dowell Hudson – SPP  
Eddie Filat – SPP  
English Cook – SPP  
Eric Burkey – SPP  
Gary Wilmes – Black and Veatch  
Harold Wyble – KCPL  
Harvey Scribner – SPP  
James Lyle – SPP  
Janet Wheeler  
Jason Fortik – LES  
Jason Hofer – NPPD  
Jason Robison – SPP  
Javier Ramirez – Abengoa TXD.  
Jeffrey Keenan – GDF Suez  
Jim McAvoy – OMPA  
John Chiles – ETEC  
John Fulton – SPS/XCEL Energy  
Josh Ross – SPP  
Katherine Prewitt – SPP  
Keith Tynes – SPP  
Kelsey Allen – SPP  
Kip Fox – AEP

Mak Nagle – SPP  
Mark Hamilton – OG&E  
Michael Hutson – RES Americas  
Nate Morris – EDE  
Nick McNeill – SPP  
Noman Williams – Sunflower  
Paul Dietz – Westar Energy  
Paul Simoneaux – Entergy  
Rachel Hulett – SPP  
Raja Srivastva – RES Americas  
Richard Greffe – PUCT  
Rick Running – Consultant  
Ronnie Frizzell – AECC  
Sam Loudenslager – Arkansas PSC  
Sam McGarrah – Empire District Company  
Steve Purdy – SPP  
Terri Gallup – AEP  
Tim Miller – SPP  
Tony Gott – Associated Electric Cooperative  
Walt Cecil – Missouri PSC  
Walt Shumate – Shumate & Associates  
William Mauldin – SPP

**Teleconference:**

Alan Ralston – Entergy Services  
Dan Lenihan - OPPD  
Jason Atwood – Dogwood Energy  
Matt McGee – AEP  
Robert Wood – Missouri PSC  
Sayed Amad – FERC  
Tina Lee – KGen Power  
Nathan McNeil – Midwest Energy  
Angela Easton – Calpine

**Agenda Item 2 – Integrated Transmission Planning**

- a. Objectives/Direction/Big Picture ..... Charles Cates
  - Q: Sam Loudenslager - Is Slide 13 a mix of start- and end-dates?
  - A: Ben Roubique - Correct. None of these dates are hard and fast except Jan/2011.
  - Q: Sam Loudenslager - How will SPP reach these goals by these dates?
  - A: Ben Roubique - That is still in the air. We expect some variance, but will still shoot for Jan/2011.
  - Q: Bary Warren - What is the game-plan to integrate local transmission planning w/ ITP?
  - A: Gary Wilmes - These are two different animals; local vs. regional.
  - Q: Bary Warren - Is SPP concerned about the need to provide input? If not will this not lead to transmission over-build?
  - A: Charles Cates - There may be some correlation between the local and regional plans. Local entities should reference ITP upgrades and siting.
  - Q: Bary Warren - Will the ITP 20-year planning horizon look at seams?
  - A: Charles Cates - Only those which are in the resource plan for EES, SPP, etc.
  - A: Ben Roubique - Deliverability will be studied in the ITP 10-Year planning horizon in 2011.
  - Q: Alan Myers - When is the next planning summit?
  - A: Ben Roubique - The next summit is planned for Aug/2010.
  - Q: Unknown - What will SPP do to keep the stakeholders informed about the ITP?
  - A: Keith Tynes - SPP will roll out constant updates and is also working to further engage TWG. SPP is asking members to share information between TWG and ESWG personnel.
- b. Prototype Designs..... Ben Roubique
  - Q: Bary Warren - Will the base-case include Priority Projects?
  - A: Ben Roubique - Yes.
  - Q: Bary Warren - What amount of renewable will be included in the base-case?
  - A: Ben Roubique - CAWG surveys will be used as a starting point. Regional with high wind potential will also be targeted.
  - Q: Bary Warren - Is the current 11GW wind scenario being used?
  - A: Ben Roubique/Charles Cates - The amount of wind assumed is closer to 11.5GW.
  - Q: Bary Warren - How will locations for this wind be selected in the models?
  - A: Ben Roubique - Locations will be decided by the ESWG.
  - Q: Bary Warren - How are exports being modeled?
  - A: Ben Roubique/Charles Cates - There are three options: let the model decide for itself, use historic data, or use price signals.
  - Q: Bary Warren - How will coal be operated in the base-case to reduce/eliminate cycling?
  - Action Item 4:** Ben Roubique - We are looking into this.
  - Q: Bary Warren - How will the ITP models interface seams? Must we not get resources out of SPP footprint?
  - A: Ben Roubique - ITP models will include AECl, Amren, and EES data
  - Q: Ronnie Frizzell - Is staff looking at JCSP report?
  - A: Ben Roubique - Yes, but as a starting point only.
  - Q: Ronnie Frizzell - Will models include the Ozark study projects?
  - A: Ben Roubique - Yes.
  - Q: Sam Loudenslager - When does the next ITP cycle start?
  - A: Staff - 2012.
  - Recommendation:** Sam Loudenslager - SPP should recognize the key dates in 2013 regarding ESS and keep in contact with Carl Monroe and Jay Caspary.

Q: Brad Schwarz - Will national and state Renewable Resource Requirements be considered?

A: Charles Cates - In the base-case, no; in the high-renewables and the carbon-regulation cases, yes.

Q: Bary Warren - When will Black & Veatch release models?

A: Charles Cates - Very soon. These will not include siting, only what resources are needed

**Request:** Bary Warren – SPP Members need to get some idea of siting soon to run by upper management.

**Action Item 1:** Charles Cates – Staff will present something on siting of needed resources for member review before the August Planning Summit.

Q: Charles Cates - What feedback do the attendees have for Slide 10 of *ITP20 – Prototype Design Development*?

A: Bary Warren - Backup transformers need to be considered with costs of multiple voltages.

A: Bary Warren - Independent transmission developments should be considered in 2030.

A: Kip Fox - We don't need a lot of voltage levels, nor do we use a lot of 500kV. Possibly jump to 765kV.

A: Charles Cates – SPP needs to consider its seams, which includes 500kV transmission within Arkansas.

Q: Noman Williams - Cleanline creates a seam between TVA and Oklahoma. Is this being considered?

A: Charles Cates - This will be considered as a sensitivity.

Q: Keith Tynes - What is the MW capacity of this Cleanline project? What Impact? What NTC status?

A: Unknown - 7GW. Unknown Impact. No NTC's.

**Recommendation:** Keith Tynes - Wait until next ITP cycle to see if these projects progress.

Q: Bary Warren - Priority Projects plan focuses on SPP load. Is the ITP Constrained to focus only on SPP load?

A: Keith Tynes - SPP-SPC directed SPP to focus on internal need to diversify. First round of ITP improvements will focus on creating a robust system. This can be changed for the next cycle of ITP.

c. Benefit Metrics..... Kip Fox, Chair of MTF

Q: Bary Warren - What is the status of the manual?

A: Kip Fox - A good rough draft of 20-25 pages has been prepared and is ready for vetting by ESWG.

A: Alan Myers - The table of contents is complete. Rough drafts of all sections should be completed by August. These will be reviewed by TWG and ESWG then put before the board by December.

Q: Bary Warren - Has the MTF made more progress on Qualitative Benefits?

A: Kip Fox - MTF is looking to consultants for Qualitative Benefits and focusing on Quantitative Benefits.

Q: Bary Warren - Have metrics been developed yet or only identified?

A: Kip Fox - Most have been developed, others will have RFP's.

d. Futures Overview..... Gary Wilmes, Debashis Bose; Black & Veatch

Q: Bary Warren - Is Black & Veatch looking at nuclear power, CT, and imports for this study?

A: Gary Wilmes - Black & Veatch started with quick-starts CCT, super-critical coal at 800MW, and 1100MW nuclear. A list is presented on slide 23. We did not look at imports, but we will look at how to allocate/make resource assumptions for neighbors.

Q: Brad Schwarz - Have you looked at storage technologies?

A: Gary Wilmes - These were not modeled.

Q: Janet Wheeler - Were types of renewable energy included other than wind? What types: solar, biomass, other?

A: Gary Wilmes - Wind was the only renewable resource considered in the base-case.

Q: Bary Warren - How were demand resources modeled?

A: Gary Wilmes - SPP Forecasts were used.

A: Charles Cates - Some demand resources were modeled in ProMod, but this was minimal.

Q: Brad Schwarz - What capacity factor was used for wind? On what basis?

A: Gary Wilmes - Multiple capacity factors were used for various regions within SPP. These were based on NREL database.

Q: Brad Schwarz - Is wind expansion being modeled in Texas??

A: Gary Wilmes - Yes, this information has been updated since these slides were prepared.

Q: How was 11GW or wind resource arrived at in 2020?

A: Gary Wilmes - This was decided at stakeholder meeting; ESWG.

A: Alan Myers - This was discussed at length and was approved by the ESWG.

Q: Sam Loudenslager - Why does this not matter?

A: Alan Myers - Looking at a slice in time at 2030 has the same net effect as looking at 2020. Black & Veatch is running sensitivities to confirm this.

**Action Item 2:** Keith Tynes - Advises staff to document the 'Logic Trail' regarding this decision by ESWG and notify stakeholders when posted.

Q: Jason Hofer - How much load increase is expected in this time horizon?

A: Unknown - Load increase is expected in the range of 7-10GW.

e. Fuels Overview..... Paul Dietz, Westar

Q: Bary Warren - Are the assumptions used in this study consistent with the studies for Priority Projects?

A: Paul Dietz - Yes.

Q: Bary Warren - What is the difference between Case 1 and Case 2 on the 'Futures Adjustments' slide of *ITP 20 YR Key Fuel Assumptions*?

A: Paul Dietz - the RES 20% case is a true 20% case with 18GW of wind. This would be the case if municipals were required to achieve a 20% renewable energy portfolio.

Q: Bary Warren - should CLECo RES plan be included since they are not NITS customers?

A: Ben Roubique - Yes, but treat them as a seam.

**Agenda Item 3 – 10-Year Regional Reliability**

a. Reliability Study Process..... Bob Lux

Q: Bary Warren - Will this study include Priority Projects?

A: Bob Lux - This will include Priority Projects after NTC's have been issued. This should occur shortly after FERC approval of new cost allocation methodology.

**Request:** Bary Warren – SPP Members need to perform a sensitivity study of 2010 STEP with Priority projects vs current 2010 STEP without Priority projects.

**Action Item 3:** Keith Tynes — Staff will perform a sensitivity study of 2010 STEP without Priority projects vs 2010 STEP with Priority projects.

Q: Bary Warren - Are operating directives still being studied?

A: Bob Lux – SPP evaluates the system without using operating guides then verifies that they are still effective. If an operating directive is not effective an upgraded is planned.

b. Overview of initial 200 kV+ Transmission Solutions..... Bob Lux

c. Attachment O Reliability Study Process Q&A..... Discussion led by Bob Lux

**Agenda Item 4 – Breakout Sessions**

a. Sub-Region 1 Questions

1. Question: Have line routes been decided for Hitchland – Moore County and Tuco – Woodward? Answer: *Line routes for neither project have been decided.*

2. Question: What changed to cause these 'new' overloads? Haggard - West Dodge 115 kV? Answer: *The Haggard – West Dodge 115 kV CKT oneline did show up as an*

*overload in 2009 STEP but it was determined that this line uses dynamic rating and no upgrade was required. This would be true also for 2010 STEP.*

3. Question: Seward transformer in Midwest? Answer: *SPP will take note of this for future reference.*
  4. Question: Spearville Transformer for the loss of Spearville – Dodge and vice versa? Answer: *After further discussion with Al Tamini after the workshop, the concern was MKEC dispatch in the winter load flow STEP cases. SPP is working with Al to correct the dispatch in the new STEP models.*
  5. Question: Vealmoor Transformer: Check rating in 2012-2016? Answer: *SPP model has 168 MVA.*
  6. Eddy County SVC Transformer is shown as overloaded why is this? Answer: *The Eddy SVE XF only loads to 100%. The transformer is rated at 100 MVA and the SVC is rated at 100 MVA.*
- ii. Line/NTC Questions
1. Question: SPS received a NTC to upgrade the 2<sup>nd</sup> Kress XF and SPS does own this XF. Should SPP contact Swisher and Golden Spread? Answer: *The Kress 2<sup>nd</sup> transformer is not owned by SPS. SPP will work with the owner for its replacement. The NTC sent to SPS for this upgrade will be withdrawn.*
  2. Question: Has NTC been issued for Heizer – Great Bend? Answer: *NTC has not been issued at this time. NTCs that result from transmission service are not issued until after service contacts have been executed.*
  3. Question: Potter – Frio Draw in models? Is it needed? Check effect of Pleasant Hill 230 kV projects? Answer: *The Potter – Frio Draw (Pleasant Hill) 345 kV line is not in the model. The Pleasant Hill 230 kV lines are in the model.*
- iii. Dispatch/Generator
1. Question: Cunningham 3 & 4 are not used in models? Check dispatch to make sure this is true up to and including 2011 summer case. Answer: *This will be taken into consideration in the new STEP models.*
  2. Question: Antelope and Jones in runs? Answer: *Antelope and Jones were included in the model for ACCC runs.*
  3. Question: May need to change/correct dispatch for Golden Spread & Mustang? Answer: *SPP is working with SPS for the dispatch used in the STEP models.*
  4. Question: Check with Aggregate Studies whether 2010 summer-only, 150 MW, Blackwater purchase went through? Is it in summer models? Answer: *The 150 MW at Backwater to SPS is in the models.*
  5. Sensitivity for 2010 STEP with/without Priority Projects? (Also an action item) Answer: *SPP will consider making a sensitivity run to evaluate the impact of Priority Projects.*
- b. Sub-Region 2
- i. NPPD provided the following upgrade recommendations:
    1. Ogallala – Roscoe: Rebuild 115kV from 397MCM ASCR to larger
    2. Ogallala Transformer: Replace 187[MVA] with 336[MVA]
    3. Stegall Transformer: Add second 345[kV]/230[kV] 336[MVA]Transformer
    4. Grand Island upgrade (not NPPD facility)
    5. Low voltages at Firth 115kV and Sterling 115kV are caused by an invalid contingency
    6. Low voltages at Lamar 115kV and Spring Creek 115kV can be fixed by turning on an existing 3x15MVAR cap bank at Lamar

- ii. Question: Could SPP facilitate Ft Randall with WAPA (Seams)? NPPD willing to participate in process. Answer: Yes, SPP will meet with WAPA soon and will add this topic to the agenda.
- c. Sub-Region 3
  - i. Woodward District EHV – Hitchland double circuit EHV, does each circuit need to be:
    1. Located on separate structure?
    2. Located in separate right-of-way?

Response: Staff is working through this answer internally, but will advise the companies how to build the projects in the NTCs.
- d. ITP
  - i. Suggested Prototypes
    1. EHV in ETEC (unsupported load growth)
    2. One load pocket is the new Haynesville-Shell natural gas field. AEP is looking for a 138 kV and 345 kV (and possibly even 500 kV) solution to serve this area. There is limited existing transmission in this area. A near term solution is required but would need to fit into the EHV expansion plan.
    3. Ozark Plan
    4. EHV in WOTAB
    5. Even more transmission to the panhandle of Texas
  - ii. General Feedback on the ITP20
    1. 765 kV trigger point is 10 GW of nameplate wind.
    2. There should be flexibility in the next ITP20 even after ATPs have been issued.
    3. TO's would like the Limited Reliability models (especially 20 year model) as soon as possible.

**Agenda Item 5 – Other SPP Planning Topics**

- a. Seams Efforts..... Dowell Hudson
  - Q: Sam Loudenslager - What do the columns represent in slide 11 of *Other SPP Planning Topics*?
  - A: Dowell Hudson - The columns show what functions we interact with each entity. This goes beyond Order 890.
- b. Congestion Hedging..... Mak Nagle
- c. Modeling..... Kelsey Allen
  - i. Model Improvement Task Force objectives
- d. Screening Studies for Transmission Service (OATT Attachment AR) ..... Steve Purdy
  - Q: Sam Loudenslager - There are a number of different options for Screening Services. Are there different costs or one cost? What is the cost?
  - A: Steve Purdy - Expected Cost for LTSR study is \$15k. Multiple requests studied as a group may cost more than a single study/single request, but less than the cost of each request studied separately.
- e. Delivery Point Addition Studies (OATT Attachment AQ) ..... Rachel Hulett
  - Q: Bary Warren - Will this study be applicable to addition of every new substations?
  - A: Rachel Hulett - Only for those determined to be interconnections to the transmission system.
  - Q: John Chiles - Will this study be required with new DNR required by new DPAs?
  - A: Rachel Hulett - This process will not grant a DNR, only the load portion of the request will be considered.
  - A: Kip Fox: If a new DNR is required, the upgrade will go through Aggregate Studies, and this process will not be required. Staff stated they would address this issue offline.

*Staff determined answer after meeting that new DNRs will go through the Aggregate Study process and that new DPAs will go through the AQ process.*

Q: Terri Gallup – Is there a 30-day limit for a customer to execute a study agreement, otherwise the request will be withdrawn?

A: Rachel Hulett - Yes.

Q: Noman Williams - After a report is posted is there a maximum time the delivery point can 'hang'?

A: That is managed by TO's not by SPP.

**Agenda Item 6 – Closing**

Meeting adjourned: 4:08 PM