



**Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP**

SPP Chenal Office – Little Rock, AR

December 6, 2010

1:00 p.m.

• M I N U T E S •

Agenda Item 1 - Administrative

The meeting was called to order at 1:02 p.m. The following Model Development Working Group (MDWG) members were in attendance:

Scott Rainbolt, Chair – American Electric Power (AEP)
Joe Fultz, Vice Chair – Grand River Dam Authority (GRDA)
Reené Miranda – Southwestern Public Service (SPS)
Mo Awad – Westar Energy (WR)
Nate Morris – Empire District Electric (EDE)
Mike Clifton – Oklahoma Gas & Electric (OGE)
Nathan McNeil – Midwest Energy (MIDW)
Jason Shook – GDS Associates (GDS)
John Boshears – City Utilities of Springfield (CUS)
Scott Schichtl – Arkansas Electric Cooperative (AECC)
Dustin Betz – Nebraska Public Power District (NPPD)
Brian Wilson – Kansas City Power & Light (KCPL)

SPP Staff in attendance included Anthony Cook (Secretary), Kelsey Allen, and John Snyder.

The following guests were also in attendance:

Liam Stringham – Sunflower Electric Power Corporation (SEPC)
Charles Yokley – Sunflower Electric Power Corporation (SEPC)
Chris Thibodeaux – Cleco Power (CELE)
John Payne – Kansas Electric Power Cooperative (KEPCo)
Jason Bentz – American Electric Power (AEP)
John Lane – Western Farmers Electric Cooperative (WFEC)
David Sargent – Southwestern Power Administration (SWPA)
Jared Tumilson – Oklahoma Gas & Electric (OGE)
Bryan Wilson – Oklahoma Gas & Electric (OGE)

Meeting Agenda

The agenda was reviewed by the group. Anthony Cook suggested changes to items 7 and 8. Mo Awad motioned to approve the agenda with changes; Mike Clifton seconded the motion. The motion passed unopposed (**Attachment 1 - MDWG Agenda 20101206.doc**).

Meeting Minutes

Scott Schichtl motioned to approve the October 21, 2010 meeting minutes; Mo Awad seconded the motion. The motion passed unopposed (**Attachment 2 - MDWG Minutes 20101021.doc**).

Agenda Item 2 – Review of Past Action Items

Anthony Cook opened discussion by asking Kelsey Allen to give an update on action item #52. Kelsey explained that MOD will allow a load to be added to an external bus that is not in the database; however, the issue is to not overwrite more up to date external data, contained in the MMWG models, with the external data in MOD. MOD has the functionality to build full models within the program by defining external areas, but any data contained in MOD for updates to external systems will not get applied. The group agreed to let SPP decide the best method of building cases.

Anthony also informed the group that item #53 was complete and #59 would be complete with the posting of the Build 1 Pass 2 Initial models.

Items #1 and #60 - #62 are to be discussed as agenda topics during the meeting.

Agenda Item 3 – Modeling Practices:

Operating/Planning Reserve

Anthony Cook informed the group that the GWG Secretary stated that accounting for generation reserve is a modeling issue and referred the inquiry back to the MDWG. Kelsey Allen stated that the near term models are not an issue and that the problem arises in the long term cases, more specifically in the ten year case. The question was asked again as to whether it is better to max out units or increase imports. The MDWG decided that the group needs to provide the TWG, at its February meeting, with options as to how to handle this situation. The group decided to continue this discussion at the next conference call.

Normally Open Lines

Anthony Cook informed the group that the idea of modeling “normally open” lines with an ID of “NO” was openly accepted by the MMWG. Discussion arose as to the amount of effort it would take to change the data when PSS/E version 32 may have additional features to model the lines differently. Kelsey Allen again suggested adding a list to the data submittal workbook. The group decided adding an additional tab to the Data Submittal Workbook would be the best choice.

Agenda Item 4 – Summer Shoulder:

Load Duration Curve

Daily peak values and load curve information for 2008-2010 was sent to the modeling contacts for review. The group decided to postpone this topic for further discussion until the next MDWG meeting.

Agenda Item 5 – Data Submittals:

MOD vs. Data Submittal WB

In an effort to eliminate redundant data submission by SPP members, SPP will use the information within MOD projects and the models to update the relevant data in the Data Submittal Workbook.

Agenda Item 6 – Breaker/Switch Modeling for PSS/E 32:

The group discussed the pros and cons of modeling breaker and switch configurations in PSS/E version 32. The group decided that the amount of time and potential issues that could arise from attempting this task would far outweigh any benefits.

Agenda Item 7 – Wind Farm Modeling:

Mo Awad inquired, from other members, their current practices of modeling wind. TVA requested Westar to model a transaction of 185 MW of wind in all models. After discussion the group directed Mo to Criteria 12.1.5.3.g.

Agenda Item 8 – Other:

Facility Ratings

Mo Awad asked how transmission lines should be rated, specifically as to the value of Rate B. The MDWG Powerflow Manual defines Rate A as the normal rating and Rate B as the emergency rating and that Rate B should be the same or higher than Rate A with Rate C as optional. Should Rate B be defined more specifically as long-term or 4 hour emergency rating? It is currently up to the transmission owner as to which value to use.

Organizational Survey

Anthony Cook briefly discussed the results of the Organizational Effectiveness Survey. The group has an overall effectiveness rating of 3.9, up from 2.8 and an aggregate mean score of 4.09, up from 3.98 in 2009.

Agenda Item 9 - Closing Administrative Duties:

Next Meetings:

Conference Call: January (TBD)

Face to Face: August, Omaha

Upcoming Meetings Topics:

1. Planning reserve recommendations/questions for TWG
2. Summer Shoulder load value
3. Short Circuit data/model update

Summary of New Action Items

No additional action items resulted from this meeting.

(Attachment 3 - SPP MDWG Action Items 20101206.xls)

Adjourn Meeting



Scott Schichtl motioned to adjourn the meeting; Reené Miranda seconded the motion. With no further business to discuss, the MDWG meeting was adjourned at 3:29 p.m.

Respectfully submitted,
Anthony Cook
SPP Staff Secretary



**Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP
December 6, 2010
SPP Chenal Offices
1:00 P.M.**

• A G E N D A •

- 1. AdministrativeScott Rainbolt
 - a. Call to order
 - b. Proxies
 - c. Approve agenda
 - d. Approve minutes of previous meetings
 - i. October 21, 2010
- 2. Review of Past Action Items..... Anthony Cook
- 3. Modeling Practices All
 - a. Accounting for operating/planning reserves
 - i. GWG Secretary Response
 - ii. MDWG Options
 - b. Normally Open Lines
 - i. MMWG response to Generic ID
- 4. Summer Shoulder All
 - a. Load Duration Curves
- 5. Data Submittals Anthony Cook
 - a. MOD vs. Data Submittal WB
- 6. Breaker/Switch Modeling for PSS/E 32..... All
- 7. Wind Farm Modeling All
- 8. Other All
 - a. Facility Ratings
 - b. Organizational Survey
- 9. Closing Administrative Duties.....Scott Rainbolt
 - a. Next meeting place and date
 - b. Next meeting topics
 - c. Review of Action Items
 - d. Adjourn meeting



**Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP**

October 21, 2010

9:00 a.m. – 12:00a.m.

Conference Call

• M I N U T E S •

Agenda Item 1 - Administrative

The meeting was called to order at 9:06 a.m. The following Model Development Working Group (MDWG) members were in attendance:

Scott Rainbolt, Chair – American Electric Power (AEP)
Joe Fultz, Vice Chair – Grand River Dam Authority (GRDA)
Reené Miranda – Southwestern Public Service (SPS)
Mo Awad – Westar Energy (WR)
Nate Morris – Empire District Electric (EDE)
Mike Clifton – Oklahoma Gas & Electric (OGE)
Nathan McNeil – Midwest Energy (MIDW)
Jason Shook – GDS Associates (GDS)
John Boshears – City Utilities of Springfield (CUS)

SPP Staff in attendance included Anthony Cook (Secretary), Kelsey Allen, John Snyder, and Greg Sorenson (RE).

The following guests were also in attendance:

Liam Stringham – Sunflower Electric Power Corporation (SEPC)
Syed Ahmad – Federal Energy Regulatory Commission (FERC)
Brian Tomlinson – Rayburn Country Electric Cooperative (Rayburn)

Meeting Agenda

The agenda was reviewed and approved by the group (**Attachment 1 - MDWG Agenda 20101021.doc**).

Meeting Minutes

Mo Awad motioned to approve the September 8, 2010 meeting minutes; Jason Shook seconded the motion. The motion passed unopposed (**Attachment 2 - MDWG Minutes 20100908.doc**).

Agenda Item 2 – Review of Past Action Items

Anthony Cook opened discussion by updating the group on action item #1 with information gathered by SPP staff since the September 8, conference call. Anthony

informed the group that all other regions rely on the MMWG Powerflow Manual's definition of the summer shoulder. Also, a derivation of the 70% to 80% range or 85% value of summer peak case could not be found. Anthony had discussed this with Don Taylor at Westar Energy, who supplied background information of the inception of the 85% value for the summer shoulder model. Don explained that a load duration curve of a summer peak was studied several years ago and that the 85% of summer peak load value was determined. Mo Awad requested SPP perform a restudy of a summer peak duration curve to determine the sufficiency of the 85% value. Anthony agreed with the suggestion.

Action Item: Perform a study of a current summer load duration curve. (SPP Staff)

Agenda Item 3 – Modeling Practices:

Unit Pmax

The Transmission Working Group (TWG) has expressed concern about the modeling of Pmax on units without considering operating or planning reserves. Their concern is that the system isn't being protected.

The TWG requested the MDWG address modeling issues and provide a recommendation on generation reserves:

- Need clarity of Pmax definition in the MDWG manual
- Accounting for operating/planning reserves

Jason Shook explained that the primary concern is the effect of scaling generation during a study. Reené Miranda stated that there are several values that could be used for Pmax. His examples were: Transmission Service Study, NITS agreement, NERC FAC 9 Standard. Mo Awad and Nate Morris stated that they believe this is more of a resource planning issue. Nathan McNeil commented that during a short fall, all area generation is maxed out before other generation is used. Kelsey Allen stated that changing the Pmax for reserves would not be the correct action. Jason stated Pmax should represent real world. Kelsey asked if all generators should be scaled down below Pmax to account for spinning reserve. Nathan stated that all units shouldn't be scaled; however, specific units could be designated for reserve. John Boshears stated that this is more of a Balance Authority (BA) specific issue because City Utilities of Springfield (SPRM) buys spinning reserve from their BA. Reené stated that the MDWG should provide the base case model and rely on SPP to determine reserve. Nathan discussed looking at NERC MOD 24 Standard and SPP Criteria 12 and that capability of the unit should be modeled. Mo stated that it is better to have zero spinning reserve than to have fictitious generation. The group requested SPP staff discuss reserve modeling with the Generation Working Group (GWG).

Action Item: Discuss reserve modeling with the GWG. (SPP Staff)

Normally Open Lines

During the auditing process, SPP was asked to produce examples of normally open lines within the SPP footprint. This information is not readily available and could not be

quickly retrieved. Anthony Cook asked the group if “NO” would be a good identifier for these lines. Anthony also stated that Entergy already observes this in their modeling practice. Reené Miranda asked SPP to request PTI add a status mode for branches, as well as generators. This would include selections such as normally open, maintenance, rebuild, etc. Kelsey Allen suggested adding a list to the data submittal workbook.

Action Item: Discuss status mode for branches and generators with PTI and MMWG. (SPP Staff)

Agenda Item 4 – MOD Matrix:

Proposed Changes

Kelsey Allen discussed the proposed changes to the MOD Matrix and stated that there may be additional changes to the ITP section. He asked for members to submit comments and suggested changes.

(Attachment 3 - MOD Project Type-Status Matrix_proposed_20101018.xls)

Agenda Item 5 – DBU Meeting:

The group agreed to have the DBU meeting on December 6-8. The meeting will be the afternoon of the December 6, full day December 7, and morning of December 8 with the afternoon available if needed.

Agenda Item 6 – Model Improvement Task Force (MITF) White Paper:

Implementation

Kelsey Allen discussed removing specific entities from the MITF white paper and the approval by the TWG. He discussed implementation of several of the topics (sections 4E and 5 specifically) and the need for more involvement from the modeling contacts.

(Attachment 4 – Model Improvement White Paper_TWG Approved.doc)

Agenda Item 7 – Other

Anthony Cook gave an update on the building of the 2010 MMWG models. The models are a few weeks behind schedule and will be discussed at the MMWG meeting next week.

Agenda Item 8 - Closing Administrative Duties:

Next Meeting:

DBU Meeting: Little Rock on December 6-8.

Upcoming Meetings Topics:

TBD

Summary of New Action Items

1. Perform a study of a current summer load duration curve. (SPP Staff)



2. Discuss reserve modeling with the GWG. (SPP Staff)
3. Discuss status mode for branches and generators with PTI and MMWG. (SPP Staff)

(Attachment 5 - SPP MDWG Action Items 20101021.xlsx)

Adjourn Meeting

With no further business to discuss, the MDWG meeting was adjourned at 10:32 a.m.

Respectfully submitted,
Anthony Cook
SPP Staff Secretary

	Action Item	Responsible Parties	Date Originated	Progress	Notes
1	Ask SPP Operations to derive the average coincident peak value for SPP System during the 4 month summer	Anthony Cook	5/19/2009	Incomplete	Is the 85% accurate for the summer shoulder model? Where did 85% originate from and provide derivation of 85%.
2	SPP Staff will add the NERC TPL (Transmission Planning) and MOD (Modeling, Data, and Analysis) Standards that are applicable to each required item in the SPP Compliance Template Form	Anthony Cook	8/7/2009	In Progress	Staff to update the template with Dynamics.
3	Members are to ensure that all generation conform to the Remote Generation Modeling Procedure beginning with the second build of the 2010 Model Series	Modeling Contacts	8/7/2009	In Progress	
6	Staff will add a member editing process for the Master Tie Line Procedure to the MDWG Powerflow Manual	Anthony Cook	9/16/2009	In Progress	
11	Staff will add a member editing process for the SPP Data Submittal Form to the MDWG Powerflow Manual	Anthony Cook	9/16/2009	In Progress	
14	Staff will update the Web Based Power Flow Model Development Procedure Manual after MOD version 7 has been released and installed on the production server	SPP Staff	11/17/2009	In Progress	
42	Review the new MOD standards approved by FERC and how they will apply to the MDWG and SPP planning modeling	SPP Staff	3/1/2010	In Progress	
46	Staff to add a list of what the final Build 1 models are used for to the data request email	SPP Staff	8/5/2010	In Progress	
50	Reformat the MDWG procedure manual and add hyperlinks for referenced documents	Anthony Cook	8/6/2010	In Progress	
52	Determine if MOD will allow a load to be added to an external bus that is not in the database and what validation errors might arise	Kelsey Allen	8/6/2010	In Progress	
53	Clean up the profile list currently in MOD	SPP Staff	8/6/2010	Complete	
56	Discuss with Entergy about SPP members modeling load with zero impedance lines	SPP Staff	8/6/2010	In Progress	
57	Determine the standards for stability load data	Scott Jordan	8/6/2010	In Progress	
59	Provide updated docucheck program to modeling contacts	SPP Staff	8/6/2010	In Progress	
60	Perform a study of current summer load duration curve	SPP Staff	10/21/2010	In Progress	This is in conjunction with Item # 1. Staff sent Modeling Contacts daily peak values and load curve information to review.
61	Discuss reserve modeling with the GWG. Provide TWG with options as to how to handle this situation.	SPP Staff	10/21/2010	In Progress	GWG Secretary states this is a modeling issue. MDWG to provide options to TWG.
62	Discuss status mode for branches and generators with PTI and MMWG	SPP Staff	10/21/2010	In Progress	Staff discussed with MMWG and PTI. For now, Staff will add a tab for Normally Open branches to the data submittal workbook.