Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP
January 25, 2010
1:30 p.m. – 3:00 p.m.
Net Conference

• M I N U T E S •

Agenda Item 1 - Administrative

The meeting was called to order at 1:32 p.m. The following Model Development Working Group (MDWG) members were in attendance:

Scott Rainbolt, Chair – American Electric Power (AEP)
Reené Miranda – Southwestern Public Service (SPS)
Dustin Betz – Nebraska Public Power District (NPPD)
Mo Awad – Westar Energy (WR)
Brian Wilson – Kansas City Power & Light (KCPL)
Mike Clifton – Oklahoma Gas & Electric (OGE)
Scott Schichtl – Arkansas Electric Cooperative (AECC)
John Boshears – City Utilities of Springfield (CUS)
Jason Shook – GDS Associates (GDS)

SPP Staff in attendance included Doug Bowman, Bob Lux, Rachel Hulett, Dowell Hudson, Greg Sorenson, and Kelsey Allen.

The following guests were also in attendance:
Nate Morris – Empire District Electric (EDE)
Nathan McNeil – Midwest Energy (MIDW)
Racheal Ren – Kansas City Power & Light (KCPL)
Jeff Stewart – Lafayette Utilities System (LUS)

Meeting Agenda
The agenda was reviewed by the group. A new item six was inserted for and update on the Short Circuit Task Force Whitepaper by Scott Schichtl. Brian Wilson motioned to approve the agenda as amended; Scott Schichtl seconded the motion. The motion passed with no opposition. (Attachment 1 - MDWG Agenda 20100125.doc)
Agenda Item 2 – Review of Past Action Items

Action items from the January 7 meeting were reviewed and the group was updated on any completed items. Status and comments were updated in the SPP MDWG Action Items spreadsheet (Attachment 2 - SPP MDWG Action Items 20100125.xls).

Agenda Item 3 – MDWG Model Building Schedule:

Staff presented the MDWG model building schedule adjusted to reflect member requests from the previous meeting. Reené Miranda requested that the dynamics schedule be included chronologically with the powerflow in order to see deadlines of the same time frame grouped together. Staff explained that due to the functions of Microsoft Project this would prove more cumbersome than helpful.

The group discussed the process of the AC contingency analysis to be performed on the 2010 Series B1 powerflow models for model verification; members expressed concern about the auxiliary files that were going to be used for this analysis. Staff present did not know how this analysis has been done on the MDWG models in the past.

Action Item: Investigate how the MDWG AC contingency analysis process for model verification has been performed historically and member input into auxiliary files. (SPP Staff)

Staff requested that the group approve the proposed model building schedule at least through the second build of the 2010 series models. Reené Miranda motioned to approve the 2010 Series Build 2 model building schedule; Mike Clifton seconded the motion. The motion was approved with no opposition. (Attachment 3 - MDWG Modeling Schedule 2010 B2.pdf)

Agenda Item 4 – Trending for 20-Year Load Forecasting (Update):

The updated 20-year load forecasting data showing results of the different growth rate calculations as requested in the previous meeting was shown to the group. Staff has not updated the data with projections from the pass 4 models as they are not yet complete, but plans to send out new data tomorrow, assuming the models will be finished. Doug Bowman received comments from only a small number of members (Scott Rainbolt, Nate Morris, and Mark Worf) and requested that everyone review the projections again and give their approval by the end of the week so that the ITP study can move forward. Mo Awad approved of Westar’s projections and agreed with the deadline. Scott Rainbolt requested that the data be broken down by load zones for those members that do not have modeling areas in order to verify total load projections.

Action Item: Update 20-year load forecast data with most recent MDWG models. (SPP Staff)

Action Item: Review and comment on 20-year load forecast data by Friday, January 29. (SPP Modeling Contacts)
The group was concerned about the use of these numbers and questioned the inputs and study process that these load projections will be used for. The question of whether SPP will be sending NTC's based on the ITP studies arose. Staff explained that SPP will be creating a new type, Authorization to Plan (ATP), which will not require a commitment to build any proposed transmission but will be similar to an NTC in that it will give authorization to include the proposed transmission in the STEP models, the basis for reliability, transmission service, and generation interconnection studies. Reené Miranda asked where the resource plans to serve the 20-year forecasts were coming from. Bob Lux, SPP staff, said different dispatch scenarios were being developed by ITP staff with input from the ESWG. Reené asked if SPP will be requesting mitigation plans for the study results. Bob Lux and Rachel Hulett said staff will not be requesting plans as done with the STEP 10-year analysis. Staff is performing 8760 hour runs in ProMOD and is looking for 345kV and above mitigation.

**Agenda Item 5 – Implementing SPP Modeling Assignments:**

Staff updated the group on the internal discussion with IT about implementing the new modeling assignments in MOD. SPP IT should be able to run scripts directly on the MOD database in order to update owners and zones for all data types in both the base case and projects. More investigation is needed before this is certain but staff requested that all members create a translation table in preparation for converting all old assignments.

*Action Item:* Send out a request to all SPP modeling contacts requesting a translation table for zone and owner information. (SPP Staff)

**Agenda Item 6 – Short Circuit Task Force Whitepaper:**

Scott Schichtl, Short Circuit Task Force chairman, gave the group an update on the SCTF Whitepaper. Based on discussion with the TWG chair, he requested that the MDWG review and vote on approval of the whitepaper prior to the February 3rd TWG meeting. Since the group has not had a chance to review this document, staff will provide a copy and has requested that all comments be sent in by Friday, January 29. An e-mail vote will take place on Monday, February 1 to determine the group's approval. Scott Schichtl asked the group about the fate of the SCTF and if it will be disbanded with the approval of the whitepaper. The consensus was that the task force should not disband, in the event future problems arise.

*Action Item:* Provide the finalized Short Circuit Task Force Whitepaper to the MDWG members. (Doug Bowman)

*Action Item:* Provide comments on the Short Circuit Task Force Whitepaper by Friday, January 29. (MDWG Members)
Agenda Item 7 – Other:

MOD Training
Staff informed the group on the status of MOD training for 2010. Siemens PTI has provided a quote and possible dates for an instructor to come to Little Rock but it includes much more material than is needed by SPP and members. Staff is still working out the details with PTI and SPP IT but has suggested to move forward with training during the first week of March instead of waiting until April, the next available time. This training will be a review of basic MOD functions as well as training on profiles, the transaction feature, and updates made with MOD version 7.

Action Item: Request availability of all SPP modeling contacts for MOD training during the first week of March, 2010. (SPP Staff)

Agenda Item 11 - Closing Administrative Duties:

Next Meeting:
MOD Training - TBD in Little Rock, AR. Possibly week of March 1, 2010.
MDWG - TBD. Face meeting in conjunction with MOD Training or conference call week of March 1, 2010.

Summary of New Action Items
1. Investigate how the MDWG AC contingency analysis process for model verification has been performed historically and member input into auxiliary files. (SPP Staff)
2. Send out a request to all SPP modeling contacts requesting a translation table for zone and owner information. (SPP Staff)
3. Update 20-year load forecast data with most recent MDWG models. (SPP Staff)
4. Review and comment on updated 20-year load forecast data by Friday, January 29. (SPP Modeling Contacts)
5. Provide the finalized Short Circuit Task Force Whitepaper to the MDWG members. (Doug Bowman)
6. Provide comments on the Short Circuit Task Force Whitepaper by Friday, January 29. (MDWG Members)
7. Request availability of all SPP modeling contacts for MOD training during the first week of March, 2010. (SPP Staff)

(Attachment 2 - SPP MDWG Action Items 20100125.xls)

Adjourn Meeting
With no further items to discuss, the MDWG meeting was adjourned at 2:53 p.m.

Respectfully submitted,
Kelsey Allen
SPP Staff
Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP
January 25, 2010
Net Conference
1:30 P.M. – 3:00 P.M.

• A G E N D A •

1. Administrative ..................................................................................................................... Scott Rainbolt
   a. Call to order
   b. Proxies
   c. Approve agenda
   d. Approve minutes of previous meetings
      i. January 7, 2010

2. Review of Past Action Items................................................................................................. Kelsey Allen

3. MDWG Model Building Schedule ...................................................................................... SPP Staff

4. Trending for 20-Year Load Forecasting (Update) ............................................................ Doug Bowman

5. Implementing SPP Modeling Assignments .............................................................................. SPP Staff

6. Short Circuit Task Force Whitepaper ................................................................................ Scott Schichtl

7. Other.................................................................................................................................... All

8. Closing Administrative Duties.............................................................................................. Scott Rainbolt
   a. Next meeting
   b. Upcoming meetings/Topics
      i. MOD Training - TBD
         (1) MOD 7
         (2) Profiles in MOD
   c. Summary of action items
   d. Adjourn meeting
<table>
<thead>
<tr>
<th>Action Item</th>
<th>Responsible Parties</th>
<th>Date Originated</th>
<th>Progress</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ask SPP Operations to derive the average coincident peak value for SPP System during the 4 month summer</td>
<td>Harvey Scribner</td>
<td>5/19/2009</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>Anthony Cook</td>
<td>8/7/2009</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>Modeling Contacts</td>
<td>8/7/2009</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>4 Staff will add a member editing process to the Master Tie Line Procedure</td>
<td>Anthony Cook</td>
<td>9/16/2009</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>5 Staff will determine a deadline for enforcing NE short circuit compliance once the Short Circuit Task Force has an approved schedule for producing a short circuit model</td>
<td>Anthony Cook</td>
<td>9/16/2009</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>6 Staff will add MOD project names to the generator Workbook</td>
<td>Anthony Cook</td>
<td>9/16/2009</td>
<td>In Progress</td>
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<td>7 Members are to ensure that all generation conform to the Remote Generation Modeling Procedure beginning with the second build of the 2010 Model Series</td>
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<td>Anthony Cook</td>
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<td>9 Staff will talk to PTI to come up with a solution for the transformer errors and report back to the group in the December meeting</td>
<td>SPP Staff</td>
<td>11/17/2009</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>10 Staff will include the SPP Modeling Improvement Proposal developed by SPP Technical Studies and Modeling staff on a future MDWG agenda</td>
<td>Kelsey Allen</td>
<td>11/17/2009</td>
<td>Complete</td>
<td>Staff will produce a strawman to present to the Modeling Improvement Task Force and let that group work out the current modeling issues and processes. Any solutions proposed by the Task Force will then go through the appropriate working groups (TWG, MDWG)</td>
</tr>
<tr>
<td>11 MDWG members interested in participating in the joint TWG/MDWG engineering modeling task force are to contact Scott Rainbolt</td>
<td>MDWG Members</td>
<td>11/17/2009</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>12 Members submit typical transmission line data to staff by the end of the year in an effort to revise Section 6.A. of the manual</td>
<td>MDWG Members</td>
<td>11/23/2009</td>
<td>Complete</td>
<td>Staff has received submissions and is in the progress of compiling.</td>
</tr>
<tr>
<td>13 Staff send request to SPP members for submittal of typical transmission line data</td>
<td>Kelsey Allen</td>
<td>11/23/2009</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>14 Staff send request to modeling contacts for an update to the SPP MDWG Contact List and compile any changes made by members</td>
<td>Kelsey Allen</td>
<td>11/23/2009</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>15 Staff to post more flexible documents such as the contact list, yearly model set, and schedule on the SPP website and remove from the powerflow manual</td>
<td>SPP Staff</td>
<td>11/23/2009</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>16 Staff will investigate the methods used to calculate the overall effectiveness of a working group as posted in the 2009 Organizational Group Survey Report</td>
<td>Doug Bowman</td>
<td>1/7/2010</td>
<td>Complete</td>
<td>The group effectiveness score was based on a stand alone question and was personal comparison to other working groups attended by the respondent.</td>
</tr>
<tr>
<td>17 Staff will add milestones and more detail about member data to the new proposed model building schedule</td>
<td>SPP Staff</td>
<td>1/7/2010</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>18 Staff will contact Siemens PTI regarding details on in-house MOD training</td>
<td>Doug Bowman</td>
<td>1/7/2010</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>19 Staff will revise the proposed 2011 Series Model Building Schedule to reflect the request to allow more time for model review prior to the model building meeting in Little Rock</td>
<td>SPP Staff</td>
<td>1/7/2010</td>
<td>Complete</td>
<td></td>
</tr>
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<td>20 Staff will re-calculate the 20-year load projections for the ITP based on the different suggested methods and send out for member review</td>
<td>Doug Bowman</td>
<td>1/7/2010</td>
<td>Complete</td>
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<tr>
<td>Number</td>
<td>Task Description</td>
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<td>28</td>
<td>Members verify the 20-year load projections for the ITP and respond by the end of January</td>
<td>Modeling Contacts</td>
<td>1/7/2010</td>
<td>Complete</td>
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<td>29</td>
<td>Staff will share the 20-year load projections for the ITP with the ESWG chair</td>
<td>Doug Bowman</td>
<td>1/7/2010</td>
<td>Complete</td>
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<td>30</td>
<td>Staff will talk to the ESWG secretary for more information about MDWG involvement in the ITP process</td>
<td>SPP Staff</td>
<td>1/7/2010</td>
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<td>31</td>
<td>Staff will update the approved Dynamics schedule to reflect the delays of the powerflow models and send out to members</td>
<td>Scott Jordan, Kelsey Allen</td>
<td>1/7/2010</td>
<td>Complete</td>
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<td>32</td>
<td>Update the TWG chair on the status of the SCTF</td>
<td>Scott Schichtl</td>
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