



**Southwest Power Pool  
MODEL DEVELOPMENT WORKING GROUP**

**July 1, 2014  
Conference Call  
9:00 – 11:30 A.M.**

**• 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:

Joe Fultz, Chair – Grand River Dam Authority  
Nate Morris, Vice Chair – Empire District Electric  
Nathan McNeil – Midwest Energy  
Reené Miranda – Southwestern Public Service  
Brian Wilson – Kansas City Power & Light  
Mike Clifton – Oklahoma Gas & Electric  
Derek Brown – Westar Energy  
Jason Shook – GDS Associates  
John Boshears - City Utilities of Springfield  
Dustin Betz – Nebraska Public Power District

SPP Staff in attendance included Anthony Cook (Secretary), John Mills, Mitch Jackson, and Scott Jordan.

The following guests were also in attendance:

Jason Bentz – (Proxy for Scott Rainbolt) American Electric Power  
Dona Parks – Grand River Dam Authority  
Martin Green – Grand River Dam Authority  
Gimod Olapurayil – ITC Great Plains  
Liam Stringham – Sunflower Electric Power Corporation  
Peter Howard – Kansas City Power & Light  
William Hawkins – Western Farmers  
Kevin Foflygen - City Utilities of Springfield  
Jerry Bradshaw - City Utilities of Springfield  
Aravind Chellappa – (Proxy for Reené Miranda) Southwestern Public Service

#### *Meeting Minutes*

The May 21-22, 2014 minutes were open for review. Anthony Cook had a correction to the Agenda Item 8 section. Nate Morris motioned to approve the May 21-22, 2014 meeting minutes as amended; Derek Brown seconded the motion. The motion passed unopposed. (**Attachment 1 - MDWG Minutes May 21-22, 2014.doc**)

#### *Meeting Agenda*

The agenda was reviewed by the group. Nate Morris requested to adjust the agenda item order. Brian Wilson motioned to approve the agenda as amended; Nate Morris seconded the motion. The motion passed unopposed.

(**Attachment 2 - MDWG Meeting Agenda 20140701.docx**)

#### *Meeting Materials*

Anthony Cook asked if anyone had any issues or needed more time to review the posted material. There were no concerns from anyone.

### **Agenda Item 2 – MDWG Model Building Activities:**

#### *2015 Series Schedule*

Anthony Cook presented two schedules for the 2015 series MDWG model build. Option 1 is “schedule as usual” with five passes ending late February. Option 2 condenses to four passes ending early February. Anthony requested for the group to focus only on the powerflow schedule at this time. Several group members stressed the importance of completing the 2015 Series MDWG model build on time and in a timely manner. The concern with going with Option 1 doesn’t show that the group is serious about improving the build. The group reviewed Option 2 and adjusted dates for a few items. It was also requested to add language to the ACCC item of Pass 1 and Pass 2 so as not to delay the schedule if there are issues solving these passes. Derek Brown motioned to approve Option 2 with revisions. Mike Clifton seconded the motion. The motion passed unopposed.

(**Attachment 3 - MDWG 2015 Series Powerflow.pdf**)

#### *2015 Series Model Timeliness Improvements*

Anthony Cook presented improvements submitted by Reené Miranda, Derek Brown, and Nate Morris. Anthony stated that some of the suggested improvements can easily be implemented while others will take some time. Further discussion will be had on these improvements as the 2015 Series build progresses.

### **Agenda Item 3 – Model Development Procedure Manual:**

#### *BES Definition and TPL-001-4*

Anthony stated that the BES is not mentioned in the current Powerflow Procedure Manual. He asked the group to think about whether a paragraph needs to be added in future version. Anthony also asked the group to approve language to add to the posted manual for reporting known outages based on TPL-001-4 requirements. Reené Miranda motioned to approve “Known outage(s) of Generation or Transmission Facility(ies) with a duration of a least six months” and add it to the posted manual. Derek Brown seconded the motion. The motion passed unopposed.

**Agenda Item 9 – Discussion of Future Meetings:**

*Next Meetings Place and Date:*

- Conference call in July, 2014
- Face-to-Face in Little Rock on November 12, 2014
- Model Update Meeting on November 13-14, 2014

*Adjourn Meeting*

Reené Miranda motioned to adjourn the meeting, Derek Brown seconded the motion.  
The MDWG adjourned at 11:45 a.m.

Respectfully submitted,  
Anthony Cook  
SPP Staff Secretary



**Southwest Power Pool  
MODEL DEVELOPMENT WORKING GROUP  
May 21-22, 2014  
Crowne Plaza Kansas City Downtown  
Kansas City, Missouri**

**• 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:

Joe Fultz, Chair – Grand River Dam Authority  
Nate Morris, Vice Chair – Empire District Electric  
Scott Rainbolt – American Electric Power  
Nathan McNeil – Midwest Energy  
Reené Miranda – Southwestern Public Service  
Brian Wilson – Kansas City Power & Light  
Mike Clifton – Oklahoma Gas & Electric  
Derek Brown – Westar Energy  
Scott Schichtl – Arkansas Electric Cooperative  
Jason Shook – GDS Associates  
John Boshears - City Utilities of Springfield

SPP Staff in attendance included Anthony Cook (Secretary), John Mills, Chris Haley, Mitch Jackson, Scott Jordan, and Shannon Mickens.

The following guests were also in attendance:

Jason Hofer – (Proxy for Dustin Betz) Public Power District  
Jason Bentz – American Electric Power  
Dona Parks – Grand River Dam Authority  
Martin Green – Grand River Dam Authority  
Mark Reinart – Golden Spread Electric Cooperative  
Gimod Olapurayil – ITC Great Plains  
Liam Stringham – Sunflower Electric Power Corporation  
Peter Howard – Kansas City Power & Light  
Alex Mucha – Oklahoma Municipal Power Authority  
Alan Burbach – Lincoln Electric System  
Jerry Bradshaw - City Utilities of Springfield  
Aravind Chellappa – Southwestern Public Service  
Steve Hardebeck– Oklahoma Gas & Electric  
Kyle Drees – Westar Energy  
James Remley – Westar Energy  
Mo Awad – Westar Energy  
Daniel Benedict – Independence Power & Light  
Holli Krizek – Western Area Power Administration

#### *Meeting Minutes*

The November 11, 2013 minutes were open for review. Nate Morris had a correction to the Meeting Minutes section. John Boshears motioned to approve the November 11, 2013 meeting minutes as amended; Brian Wilson seconded the motion. The motion passed unopposed. (**Attachment 1 - MDWG Minutes 20131111.doc**)

The April 16, 2014 minutes were open for review. The company name was added to an attending guess, Reené Miranda had submitted corrections to remove that Aravind was his proxy and wording for his question in the TPL-001-04-R1 section. Reené Miranda motioned to approve the April 16, 2014 meeting minutes as amended; Jason Shook seconded the motion. The motion passed unopposed.

(**Attachment 2 - MDWG Minutes 20140416.doc**)

#### *Meeting Agenda*

The agenda was reviewed by the group. Jason Shook motioned to approve the agenda as presented; Nathan McNeil seconded the motion. The motion passed unopposed.

(**Attachment 3 - MDWG Meeting Agenda 20140521-22.docx**)

#### *Meeting Materials*

Anthony Cook asked if anyone had any issues or needed more time to review the posted material. There were no concerns from anyone.

#### **Agenda Item 2 – Review of Past Action Items:**

Anthony Cook reviewed the action items. There was discussion to make #42 more specific to individual standards. He stated that many of the items are on the agenda for discussion. (**Attachment 4 - SPP MDWG Action Items 20140521.xls**)

#### **Agenda Item 3 – NERC Reliability Standards Updates:**

Shannon Mickens introduced the SPP Reliability Standards department. He discussed what they do and how they can assistance the Working Groups with information dealing with the many NERC standards under development. Their objective is to make sure all SPP members are knowledgeable of changes to standards being proposed or implemented. He gave an overview of the standards that are currently under review. The yellow highlighted areas indicate the changes since the previous discussion of the standard.

(**Attachment 5 - NERC Activities Update - 052114.docx**),

(**Attachment 6 - First Posting-Unofficial Comment Form\_0421\_SPP comments\_filed.docx**)

#### **Agenda Item 4 – Modeling Contacts Updates:**

Anthony Cook presented an updated list of Modeling Contacts. The members made additional changes. Nate Morris asked to add a column for company names. Joe Fultz asked to add whether the person is the powerflow, short circuit, and/or dynamic contact.

(**Attachment 7 - SPP\_Modeling\_Contacts\_20140521.xls**)

**AI: Add columns for company name and type of contact.**

### **Agenda Item 5 – MDWG Member Survey Results**

Anthony reviewed the MDWG Member Survey results with the group. He asked for clarification on the comments that were made.

- Member feedback was given that the MDWG should be more involved in the development of the different models that are being built by SPP. To encourage this, the MDWG should hold frequent conference calls and be readily available to give input during the model building process.
- Members requested that SPP Staff with stability understanding are available during the MDWG meetings to answer questions. Scott Jordan affirmed the upcoming dynamic workshop hosted by SPP and extended an invitation for all to attend.
- Members requested either assigning sections of the MDWG manual to members to update or form a task force in order to get the manual updated.
- Members requested truing up the wind farm topology between the powerflow and dynamic models which is a current action item.

**(Attachment 8 - 2013 org survey\_analysis\_MDWG.xlsx)**

### **Agenda Item 6 – MDWG Charter Updates:**

Anthony Cook presented the MDWG Charter with edits provided by member feedback. The group was not prepared to discuss the updates made to the Charter. A few additional edits were added; however, the discussion was tabled. Anthony stated that he would resend the charter with updates to the group for members to provide additional comments.

**(Attachment 9 - MDWG\_Charter\_5-21-2014\_DRAFT.docx)**

**AI: Anthony to check on needing to name specific models being built in scope section.**

**AI: MDWG Members to provide comments on updating the Charter.**

### **Agenda Item 7 – MDWG Model Building Updates:**

#### *2014 Series Dynamics*

Scott Jordan reviewed changes made to the dynamic model building schedule due to the delay of the powerflow models. He also gave an update of the status of the model build.

#### *2014 Powerflow and Short Circuit*

Anthony recapped the delay of finalizing the models. He reviewed the reoccurring issues that were reported by the docucheck program.

Alan Burbach discussed the MRO model building process. He stated that for the first few passes, unsolved models are provided for members to check that topology is correct and that load, generation, and interchange are balanced. This reduced the scheduled time needed to build the models since solving models can take a considerable amount of effort if these are incorrect. Many of the members agreed that the first couple of passes could be issued without being solved.

The group discussed how many projects were added/modified each pass and how there are some entities that wait until the later passes and update their system all at once. Anthony expressed that this causes a considerable amount of time to be spent reviewing so many projects at one time. More attention needs to be made to the models at the beginning of the build and use the last few passes to make minor adjustments. Mo asked what the main reasons are for the unscheduled passes each year. Anthony stated that it goes back to the reoccurring issues presented in the docucheck output.

Anthony presented improvements that the SPP Modeling Staff created based on requests from members. These improvements would apply to all modeling data reporting entities. Nathan McNeil asked for an improvement to the report card because it doesn't capture the amount of work someone does at the beginning of the process and then makes minor changes at the end. It only shows that they made changes at the end of the process and maybe not throughout. He asked for some sort of scale that shows the amount of updates being submitted each pass. Dona Parks suggested having frequent conference calls during the build to check on the member's progress of submitting data. Nathan added to hold a call each pass and let Anthony discuss the issues that he is seeing. There was consensus to hold a call during each pass to help Anthony and the members discuss the building process.

Other thoughts are to require MOD training for new hires, start next series build immediately after finalizing previous series, SPP Staff to keep MOD updated, Staff not to accept corrections after deadline, build dynamic models in parallel with powerflow models.

**(Attachment 11 - DocuCode\_2014Series\_P1-FINAL\_Compare-8MAY2014.xlsx)**

**(Attachment 12 - Member Accountability Process Improvement.docx)**

**AI: Members to provide additional improvement suggestions to Anthony.**

#### *2015 Series Model Selection*

Anthony presented the 2015 series model selection if it were to stay as usual. Nathan McNeil discussed Requirement 2.1 of TPL-001-04. Anthony stated that the current model selection does comply with the NERC definition if year 1 is 2017. Nathan stated that the TPL Task Force (TPLTF) decided for the 2015 series, year 1 will be 2016. In doing this, there isn't a 5 year or 10 year model in the current selection. Anthony presented how the MDWG models align with the MMWG models. Nathan discussed the document that the TPLTF created specifically the options tables. The group discussed whether to add 2020 summer and 2025 summer to the presented model selection or shift the set and rebuild the 2020 and 2025 models and not build 2021 and 2026 models. Nathan McNeil motioned to shift the model selection and rebuild the 2020 and 2025 models for the 2015 series. Mike Clifton seconded the motion. The motion passed unopposed.

**(Attachment 13 - 2015 Series Model Selection.xlsx)**

**(Attachment 14 - Model Matchup Presentation.pptx)**

**(Attachment 15 - NERC\_TPL-001-04.pdf)**

**(Attachment 16 - Powerflow\_and\_Dynamics\_Model\_Options\_TPL-001-4.docx)**

#### *2015 Series Schedule*



Anthony Cook presented a proposed schedule for the 2015 series MDWG model build. The group discussed that the chair of the TWG wants to see the model build end by December 31. The group discussed that this date wouldn't allow for the inclusion of the Board approved NTC projects to be added to the model set. There were several suggestions on how to improve the schedule. The group asked SPP Staff to prepare a couple of schedules and send them to the group to decide which one to adopt. (**Attachment 17 - MDWG 2015 Series Schedule\_Draft.pdf**)

**Agenda Item 8 – MDWG Modeling Practice Improvements:**

*Gross vs. Net Pmax, Aux Load*

Anthony discussed the SPP Staff recommendations for modeling generator parameters document that had been sent out to the members before. He discussed that there is an action planned for the MDWG to decide in favor or against and then it will be presented to the TWG. Chris Haley stated that the process documentation has to be established by July 2015, and then everything is enforceable by July 2016 according to the new NERC MOD standards recently approved. The MDWG and SPP Staff made additional updates to the document. Derek Brown motioned to approve the document as revised with SPP Staff checking on the specificity of referencing MOD 25. Nate Morris seconded the motion. There was one vote against by Scott Rainbolt.

**AI: SPP Staff and Members to look into the PSS\le issue of decimal places being added to generator values.**

**Agenda Item 10 – TPL-001-4:**

Nathan McNeil discussed R1 and how outages of six months or longer are going to be reported. Emails have circulated to report those outages in the data submittal workbook that accompanies the model set being built. Scott Jordan stated that there have been some concerns of the market sensitivity of the information being in the workbook. Scott stated that whether it is in the workbook or not, the outages have to be represented in the models as of January 1, 2015. The 2014 series powerflow models might have to be altered to add these outages if not already modeled.

Nathan stated that we may have to change the process of building the short circuit models to comply with R2.3 of the standard. The MDWG and SPCWG will need to hold a joint meeting and the Short Circuit Task Force (SCTF) will possibly need to be revived for model improvements.

**Agenda Item 13 – Modeling Entity Expansion:**

Chris Haley asked the group for their opinion to move toward modeling based on Transmission Customer or Load Serving Entities. He asked for the members to send him an email with their suggestions on the subject. He stated that it was brought up to the MOPC and are currently collecting responses. The group asked for Chris to send an email request.

**AI: Chris Haley to send members an email request for opinions.**

The rest of the agenda items were tabled until the next meeting.



**Agenda Item 16 – Summary of Action Item:**

- **Add columns for company name and type of contact to the modeling contact sheet.**
- **Anthony to check on needing to name specific models being built in scope section of the charter.**
- **MDWG Members to provide comments on updating the Charter.**
- **Members to provide additional improvement suggestions to Anthony for staying on schedule.**
- **SPP Staff and Members to look into the PSS\e issue of decimal places being added to generator values.**
- **Chris Haley to send members an email request for opinions.**

**Agenda Item 17 – Discussion of Future Meetings:**

*Next Meetings Place and Date:*

- Conference call in late June, 2014
- Face-to-Face in Little Rock on November 12, 2014
- Model Update Meeting on November 13-14, 2014

*Adjourn Meeting*

Reené Miranda motioned to adjourn the meeting, Nathan McNeil seconded the motion. With no further business to discuss, the MDWG adjourned at 12:26 p.m.

Respectfully submitted,  
Anthony Cook  
SPP Staff Secretary

**Southwest Power Pool, Inc.**  
**MODEL DEVELOPMENT WORKING GROUP**

**July 1, 2014**

**Conference Call**  
**9:00 A.M. – 11:30 A.M.**

**• A G E N D A •**

1. Administrative Items ..... Joe Fultz (10 min)
  - a. Call to Order
  - b. Introductions
  - c. Proxies
  - d. Previous Meeting Minutes (Action Item)
    - i. May 22, 2014 Face-Face
  - e. Agenda Review (Action Item)
  - f. Meeting Materials
2. MDWG Model Building Activities ..... Staff (1 hr)
  - a. 2015 Series
    - i. Schedule (Action Item)
      1. Powerflow
      2. Short Circuit
      3. Dynamics
    - ii. Model Timeliness Improvements
3. Model Development Procedure Manual .....All ()
  - a. BES Definition
  - b. TPL-001-4
4. New BES Definition .....Scott Jordan (10 min)
5. MDWG Modeling Practice Improvements ..... Staff (30 min)
  - a. Generator Ids
    - i. Leading Zeroes
  - b. Parallel Three Winding Transformer Ids
    - i. ASPEN Error
  - c. Modeling Transactions
  - d. Modeling of Mothballed/Retire/Decommissioned Units (Action Item)
    - i. MOD Profiles Pmax/Qmax/Qmin = 0
    - ii. Removal
  - e. Gross vs. Net Pmax, Aux Load (Reminder)
6. Modeling Entity Expansion ..... Chris Haley and Anthony Cook (15 min)
7. Other .....All (10 min)
8. Summary of Action Items ..... Anthony Cook (10 min)

*Relationship-Based • Member-Driven • Independence Through Diversity*

*Evolutionary vs. Revolutionary • Reliability & Economics Inseparable*

- 9. Little Rock Meeting ..... Joe Fultz (5 min)
  - a. MDWG: November 12
  - b. Model Update Meeting 13 and 14

ID	WBS	Task Name	Duration	Work	Start	Finish	Predecessors	Resource Names	Jun 22, '14							Jun 29, '14							Jul		
									W	T	F	S	S	M	T	W	T	F	S	S	M	T		W	T
1	1	<b>2015 MDWG Powerflow and Dynamics Models</b>	161 days	2,356 hrs	Fri 6/20/14	Mon 2/9/15																			
2	1.1	<b>2015 MDWG Powerflow and Dynamics Models</b>	161 days	2,356 hrs	Fri 6/20/14	Mon 2/9/15																			
3	1.1.1	Post Preliminary Models	1 day	0 hrs	Fri 6/20/14	Fri 6/20/14																			
4	1.1.2	<b>Kick-off</b>	21 days	232 hrs	Tue 7/1/14	Wed 7/30/14																			
5	1.1.2.1	<b>Kick-off - Review MOD Projects</b>	10 days	80 hrs	Tue 7/1/14	Tue 7/15/14																			
6	1.1.2.1.1	Kick-off - Review MOD Projects	10 days	80 hrs	Tue 7/1/14	Tue 7/15/14		SPP																	
7	1.1.2.2	Kick-off - Lock Down MOD	18 days	144 hrs	Mon 7/7/14	Wed 7/30/14		SPP																	
8	1.1.2.3	Kick-off - MOD Model Extraction	1 day	8 hrs	Wed 7/16/14	Wed 7/16/14	5	SPP																	
9	1.1.3	<b>Kick-off - Build Pass 1 Powerflow</b>	10 days	80 hrs	Thu 7/17/14	Wed 7/30/14																			
10	1.1.3.1	Kick-off - Build Pass 1 Powerflow	10 days	80 hrs	Thu 7/17/14	Wed 7/30/14	8	SPP																	
11	1.1.4	Kick-off - Post Pass 1 Powerflow	0 days	0 hrs	Wed 7/30/14	Wed 7/30/14	10	SPP																	
12	1.1.5	Kick-off - Initial Data Request (Contingency List Updates, Transactions, MTL)	0 days	0 hrs	Wed 7/30/14	Wed 7/30/14	11	SPP																	
13	1.1.6	<b>Pass 1</b>	27 days	424 hrs	Thu 7/31/14	Mon 9/8/14																			
14	1.1.6.1	Pass 1 - Members Review/Submit Changes to Pass 1 Models	10 days	80 hrs	Thu 7/31/14	Wed 8/13/14	11	Members																	
15	1.1.6.2	Pass 1 - Member Review/Changes Due (Projects, Transactions, MTL, Contingency List)	0 days	0 hrs	Wed 8/13/14	Wed 8/13/14	14	Members																	
16	1.1.6.3	<b>Pass 1 - Review MOD Projects</b>	15 days	120 hrs	Thu 7/31/14	Wed 8/20/14																			
17	1.1.6.3.1	Pass 1 - Review MOD Projects	15 days	120 hrs	Thu 7/31/14	Wed 8/20/14	11	SPP																	
18	1.1.6.4	Pass 1 - Lock Down MOD	16 days	128 hrs	Thu 8/14/14	Fri 9/5/14		SPP																	
19	1.1.6.5	Pass 1 - MOD Model Extraction	1 day	8 hrs	Thu 8/21/14	Thu 8/21/14	17	SPP																	
20	1.1.6.6	<b>Pass 1 - Build Pass 2 Powerflow Models</b>	10 days	80 hrs	Fri 8/22/14	Fri 9/5/14																			
21	1.1.6.6.1	Pass 1 - Build Pass 2 Powerflow Models	10 days	80 hrs	Fri 8/22/14	Fri 9/5/14	19	SPP																	
22	1.1.6.7	Pass 1 - Post Pass 2 Powerflow Models	0 days	0 hrs	Fri 9/5/14	Fri 9/5/14	21	SPP																	
23	1.1.6.8	Pass 1 - Pass 2 ACCC Analysis (if models solved)	1 day	8 hrs	Mon 9/8/14	Mon 9/8/14	22	SPP																	
24	1.1.7	<b>Pass 2</b>	27 days	424 hrs	Mon 9/8/14	Wed 10/15/14																			
25	1.1.7.1	Pass 2 - Members Review/Submit Changes to Pass 2 Powerflow Models	10 days	80 hrs	Mon 9/8/14	Fri 9/19/14	22	Members																	
26	1.1.7.2	Pass 2 - Status Conference Call	1 day	0 hrs	Mon 9/15/14	Mon 9/15/14																			
27	1.1.7.3	Pass 2 - Member Review/Changes Due	0 days	0 hrs	Fri 9/19/14	Fri 9/19/14	25	Members																	
28	1.1.7.4	Request First Tier external Short Circuit sequence data	0 days	0 hrs	Wed 10/15/14	Wed 10/15/14		SPP																	
29	1.1.7.5	<b>Pass 2 - Review MOD Projects</b>	15 days	120 hrs	Mon 9/8/14	Fri 9/26/14																			
30	1.1.7.5.1	Pass 2 - Review MOD Projects	15 days	120 hrs	Mon 9/8/14	Fri 9/26/14	22	SPP																	
31	1.1.7.6	Pass 2 - Lock Down MOD	16 days	128 hrs	Mon 9/22/14	Mon 10/13/14		SPP																	
32	1.1.7.7	Pass 2 - MOD Model Extraction	1 day	8 hrs	Mon 9/29/14	Mon 9/29/14	30	SPP																	
33	1.1.7.8	<b>Pass 2 - Build Pass 3 Powerflow Models</b>	10 days	80 hrs	Tue 9/30/14	Mon 10/13/14																			
34	1.1.7.8.1	Pass 2 - Build Pass 3 Powerflow Models	10 days	80 hrs	Tue 9/30/14	Mon 10/13/14	32	SPP																	
35	1.1.7.9	Pass 2 - Post Pass 3 Powerflow Models	0 days	0 hrs	Mon 10/13/14	Mon 10/13/14	34	SPP																	
36	1.1.7.10	Pass 2 - Pass 3 ACCC Analysis (if models solved)	1 day	8 hrs	Tue 10/14/14	Tue 10/14/14	35	SPP																	
37	1.1.8	<b>Pass 3</b>	32 days	524 hrs	Tue 10/14/14	Wed 11/26/14																			
38	1.1.8.1	Pass 3 - Request Review of 2014 ITP IDEVS	0 days	0 hrs	Fri 11/14/14	Fri 11/14/14		SPP																	
39	1.1.8.2	Pass 3 - Members Review/Submit Changes to Pass 3 Powerflow Models	24 days	192 hrs	Tue 10/14/14	Fri 11/14/14	35	Members																	
40	1.1.8.3	Pass 3 - Status Conference Call	1 day	0 hrs	Wed 10/29/14	Wed 10/29/14																			
41	1.1.8.4	Pass 3 - Member Review/Changes Due	0 days	0 hrs	Fri 11/14/14	Fri 11/14/14	39	Members																	
42	1.1.8.5	<b>Pass 3 - Review MOD Projects</b>	24 days	192 hrs	Tue 10/14/14	Fri 11/14/14																			
43	1.1.8.5.1	Pass 3 - Review MOD Projects	24 days	192 hrs	Tue 10/14/14	Fri 11/14/14	35	SPP																	
44	1.1.8.6	Pass 3 - Lock Down MOD	7 days	56 hrs	Mon 11/17/14	Tue 11/25/14		SPP																	
45	1.1.8.7	Pass 3 - Model Update Meeting	2 days	20 hrs	Thu 11/13/14	Fri 11/14/14																			
46	1.1.8.8	Pass 3 - MOD Model Extraction	1 day	8 hrs	Mon 11/17/14	Mon 11/17/14	43	SPP																	
47	1.1.8.9	<b>Pass 3 - Build Pass 4 Powerflow Models</b>	6 days	48 hrs	Tue 11/18/14	Tue 11/25/14																			
48	1.1.8.9.1	Pass 3 - Build Pass 4 Powerflow Models - Merge with 2014 MMWG Series	6 days	48 hrs	Tue 11/18/14	Tue 11/25/14	46	SPP																	
49	1.1.8.10	Pass 3 - Post Pass 4 Powerflow Models	0 days	0 hrs	Tue 11/25/14	Tue 11/25/14	48	SPP																	
50	1.1.8.11	Pass 3 - Pass 4 ACCC Analysis	1 day	8 hrs	Wed 11/26/14	Wed 11/26/14	49	SPP																	
51	1.1.9	<b>Pass 4</b>	45 days	632 hrs	Wed 11/26/14	Mon 2/2/15																			
52	1.1.9.1	Pass 4 - Members Review/Submit Changes to Pass 4 Powerflow Models	22 days	176 hrs	Wed 11/26/14	Wed 12/31/14	49	Members																	
53	1.1.9.2	Pass 4 - Status Conference Call	1 day	0 hrs	Fri 12/12/14	Fri 12/12/14																			
54	1.1.9.3	Pass 4 - Member Review/Changes Due	0 days	0 hrs	Wed 12/31/14	Wed 12/31/14	52	Members																	
55	1.1.9.4	<b>Pass 4 - Review MOD Projects</b>	33 days	264 hrs	Wed 11/26/14	Thu 1/15/15																			
56	1.1.9.4.1	Pass 4 - Review MOD Projects	33 days	264 hrs	Wed 11/26/14	Thu 1/15/15	49	SPP																	

Project: SPP 2015 MDWG Powerflow\_ Date: Tue 7/1/14

Task  Split 

Progress  Milestone 

Summary  Project Summary 

External Tasks  External Milestone 

Deadline 

