

**Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP
July 26, 2013
Conference Call
8:00 A.M. – 12:00 P.M.**

• M I N U T E S •

Agenda Item 1 - Administrative

The meeting was called to order at 8:10 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
John Boshears – City Utilities of Springfield
Mike Clifton – Oklahoma Gas & Electric
Derek Brown – Westar Energy
Dustin Betz - Public Power District
Jason Shook – GDS Associates

SPP Staff in attendance included:

Anthony Cook (Secretary), Chris Haley, Mitch Jackson, Scott Jordan,
Billy Songer, Mike Hughes (RE), and James Bailey.

The following guests were also in attendance:

Jason Bentz (Proxy for Scott Rainbolt) – American Electric Power
Tim Smith – Western Farmers Electric Cooperative
John Shipman – Omaha Public Power District
Dave Macey – City of Independence
Daniel Benedict – City of Independence
Peter Howard - Kansas City Power & Light
James Okenfuss - Kansas City Power & Light

Meeting Agenda

The agenda was reviewed by the group. Jason Shook motioned to approve the agenda as presented; Derek Brown seconded the motion. The motion passed unopposed. **(Attachment 1 - MDWG Meeting Agenda 20130726.doc)**

Meeting Minutes

The May 16, 2013 minutes were open for review. Brian Wilson motioned to approve the previous meeting minutes; Jason Shook seconded the motion. The motion passed unopposed. **(Attachment 2 - MDWG Minutes 20130516.doc)**

Review of Action Items

Anthony Cook reviewed the action items. Most updates can be found in the notes column of the spreadsheet. (**Attachment 3 - SPP MDWG Action Items 20130726.xls**)

#71) Nate Morris stated that this task should be reassigned to another Staff since he has changed positions. Anthony Cook assigned it to himself.

Agenda Item 2 – 2014 Series MDWG Schedule:

The Modeling Staff sent the MDWG three options to choose from based on comments received since the May meeting. Nate Morris went over the main differences between the three options. The group leaned toward version 2.4. Reené Miranda asked for one week to be added to the Pass 5 member review period. He also asked if the ITP model building schedule could be added to the MDWG schedule so that members can plan for data/review requests. Joe Fultz called for a motion to be made. Nate Morris motioned to approve version 2.4 with the adjustments to add one week to the member review period thus shifting all remaining steps by one week in Pass 5. Reené seconded the motion. The motion passed unopposed.

Anthony stated that Staff would make the updates and send the schedule out to the group before posting. He also stated that Staff will work to include the ITP model building schedule into the MDWG model building schedule.

Action Item – Staff to include ITP model building schedule into the MDWG model building schedule.

Agenda Item 3 – Modeling Practice:

Pmax Standardization/Modeling

Anthony Cook, Chris Haley, and Scott Jordan explained the need for an SPP standard for modeling Pmax. They reviewed the power point presentation posted in the background material and discussed the direction of the proposed NERC standards. Reené stated that exceptions should be documented for units where information can't be obtained. The group discussed the poll comments provided by the members. The group is not ready to make a decision at this time and tables the topic for future discussion.

Mothballed/Retired/Decommissioned Units

The group continued the discussion from the previous meeting to create a standard practice for modeling mothballed/retired/decommissioned units for the MDWG and ITP models. The group discussed that it would be best if it can be taken care of through MOD profiles and not projects. This would reduce the amount of unnecessary MOD projects. The current method of choice is to model the unit pmax as zero. This would prevent the unit from being dispatched. This discussion was tabled for future discussion.

Individual Units

The group continued the discussion from the previous meeting. Many of the members think that individual units should be modeled and not aggregated, but asked what the

size criterion is for a unit before it has to be model as an individual unit. This discussion was tabled for future discussion.

Agenda Item 4 – EMS State Estimator Comparison:

Derek Brown stated that Westar is working with SPP Ops to compare the SPP EMS models against Westar's EMS models in an effort to validate the SPP models. He wanted everyone to know that SPP Ops is willing to work with the members to make sure member systems are up-to-date. Reené stated that the proposed MOD 33 standard will require this to be performed.

Agenda Item 5 – Transformer Zero Sequence Data:

Derek Brown wanted to inform the group that in PSS/E version 30-32 positive sequence transformer impedance data is entered based on a delta configuration where you can specify the impedance data in per unit (system base, winding kV), per unit (transformer base, winding kV), or real measured values pulled directly from the test report (load loss, no load loss, excitation current, etc.). However, the zero-sequence transformer impedance data is entered based on a star-equivalent configuration and can only be entered in per unit (system base, winding kV). For most people this means per unit on a 100 MVA base. In PSS/E version 33, you can specify to enter your zero sequence transformer impedance data on the transformer base or the system base.

Agenda Item 6 – MDWG Charter Updates:

Anthony discussed the proposed updates submitted by some of the members. He stated that he will update the Charter to include these updates and send to the members for review.

Action Item – Anthony to update Charter based on suggestions from members and send to group.

Agenda Item 7 - Closing Administrative Duties:

Review of Action Items:

1. *Staff to include ITP model building schedule into the MDWG model building schedule.*
2. *Anthony to update Charter based on suggestions from members and send to group*

Next Meetings Place and Date:
Face-to-Face November 11, 2013

Next Meeting Topics:
TBD

Adjourn Meeting

Reené Miranda motioned to adjourn the meeting, Nate Morris seconded the motion. With no further business to discuss, the MDWG adjourned.



Respectfully submitted,
Anthony Cook
SPP Staff Secretary



**Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP
July 26, 2013
Conference Call
8:00 A.M. – 12:00 A.M.**

• A G E N D A •

- 1. Administrative Joe Fultz (10 min)
 - a. Call to order
 - b. Proxies
 - c. Approve agenda
 - d. Approve minutes of previous meeting
 - i. May 16, 2013
 - e. Review Past Action Items
- 2. 2014 Series MDWG Schedule.....All (1 hr)
- 3. Modeling PracticeAll (1.5 hrs)
 - a. Pmax Standardization/Modeling
 - b. Mothballed/Retired/Decommissioned Units
 - c. Individual Units
- 4. EMS State Estimator Comparison..... Derek Brown (20 min)
- 5. Transformer Zero Sequence Data..... Derek Brown (20 min)
- 6. MDWG Charter All (20 min)
- 7. Closing Administrative Duties..... Joe Fultz (5 min)
 - a. Next meeting place and date
 - i. TBD
 - b. Next meeting topics
 - i. TBD
 - c. Adjourn meeting

**Southwest Power Pool
MODEL DEVELOPMENT WORKING GROUP
May 16, 2013
Sheraton Arlington, Arlington, Texas
9:00 A.M. – 5:00 P.M.**

• M I N U T E S •

Agenda Item 1 - Administrative

The meeting was called to order at 9:08 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
Scott Rainbolt – American Electric Power
Nathan McNeil – Midwest Energy
Reené Miranda – Southwestern Public Service
Brian Wilson – Kansas City Power & Light
John Boshears – City Utilities of Springfield
Mike Clifton – Oklahoma Gas & Electric
Derek Brown – Westar Energy
Scott Schichtl – Arkansas Electric Cooperative
Dustin Betz – Nebraska Public Power District

SPP Staff in attendance included Anthony Cook (Secretary), John Mills, Brandon Hentschel, Chris Haley, Jay Caspary, Mitch Jackson, Scott Jordan, Alan Wahlstrom (RE), and James Bailey.

The following guests were also in attendance:

Mo Awad – Westar Energy
Jason Bentz – American Electric Power
Jerry Bradshaw – City Utilities of Springfield
Martin Green – Grand River Dam Authority
Dona Parks – Grand River Dam Authority
Tim Smith – Western Farmers Electric Cooperative
Mark Reinart – Golden Spread Electric Cooperative
Shane McMinn – Golden Spread Electric Cooperative
Aravind Chellappa – Southwestern Public Service
Jeremy Pearman – Oklahoma Gas & Electric
Gimod Olapurayil – ITC Great Plains
David Sargent – Southwestern Power Administration
Patrick West – Southwestern Power Administration
Alan Burbach – Lincoln Electric System
Jon Mayhan – Omaha Public Power District
John Shipman – Omaha Public Power District
Chad Reed – Arkansas Electric Cooperative
Liam Stringham – Sunflower Electric Power Corporation

Meeting Agenda

The agenda was reviewed by the group. John Boshears asked to add a topic for CBA Dispatch in the MDWG Models Set. The addition was made to Item 8. Reené Miranda motioned to approve the agenda with the edit; Scott Schichtl seconded the motion. The motion passed unopposed. (**Attachment 1 - MDWG Meeting Agenda 20130516.doc**)

Meeting Minutes

The November 13, 2012, November 30, 2012, February 22, 2013, March 1, 2013, and March 15, 2013 minutes were open for review. Scott Rainbolt motioned to approve the previous meeting minutes; Nate Morris seconded the motion. The motion passed unopposed. (**Attachment 2 - MDWG Minutes 20121113.doc, Attachment 3 - MDWG Minutes 20121130.doc, Attachment 4 - MDWG Minutes 20130222.doc, Attachment 5 - MDWG Minutes 20130301.doc, Attachment 6 - MDWG Minutes 20130315.doc**)

Review of Action Items

Anthony Cook reviewed the action items. Most updates can be found in the notes column of the spreadsheet. (**Attachment 7 - SPP MDWG Action Items 20130516.xls**)

#57) Scott Jordan stated that Staff is leaning heavily on the work done by WECC load modeling as well as discussions in the MMWG. Joe Fultz suggested Scott and Anthony to continue staying engaged in the MMWG discussions and keep the MDWG updated. Joe also urged the group to get involved and gain a better understanding to help provide input.

Action Item: Scott to send out WECC presentation to the MDWG.

#83) Nathan McNeil informed the group that a task force was created to handle inquiries for the AQ process. He stated that there is background material for the May TWG meeting that didn't get discussed but will be at a future meeting.

Action Item: Anthony to send out the TWG background material regarding the AQ process to the MDWG.

#85) Anthony stated that he is currently compiling a list of LSEs. Reené Miranda asked if the list will only include registered entities. Anthony stated that once the list is compiled, Staff will work with the members to compile a list of non-registered entities. John Mills stated that Staff can also get a list of entities registered with the Market and compare with the list registered with the RE.

#89) The TWG asked the MDWG to provide possible solutions to address the issue and resubmit to the TWG. Nathan McNeil expressed his concern of not modeling the removal of generation in the models until after a unit has been retired. He stated that this could mask problems that might show up once that unit is no longer available. Anthony stated that in the current process, a member can remove a unit from the MDWG model set, but if an undesignation letter hasn't been submitted, the unit will get modeled in the ITP model set. John Mills stated that he will look through the Tariff and see what the language is on generation retirement. The group agreed that suggestions

should be sent to Anthony Cook. Nathan urges the group to agree on one suggestion to send back to the TWG.

Action Item: John Mills to gather Tariff language and provide to the MDWG regarding generation retirement.

Action Item: MDWG members provide Anthony with ideas of how to model generation retirements for MDWG and ITP models.

Agenda Item 2 – Stakeholder Survey:

Anthony Cook went over the results of the 2012 Organizational Group Survey including the additional comments. (**Attachment 8 - 2012 org survey_analysis.xlsx**)

Agenda Item 3 – 2013 Series:

Powerflow

Anthony Cook gave a brief overview of the 2013 Series MDWG powerflow model building effort. He stated that the build was scheduled to end January 30, 2013 utilizing five passes, but instead ended March 1, 2013 with eight passes. He pointed out that many of the same docucheck issues remained in the report from the initial pass. John Mills asked the group to really focus on the docucheck report of each pass so that it is used to its full potential. He stated that doing this will help improve each pass of models as well as help keep the initiative on schedule.

Dynamic

Scott Jordan gave an update on the 2013 Series MDWG dynamic model building effort. He stated that there were issues with getting the contract finalized between SPP and PLI. He asked the group to review a revised schedule. He gave a comparison of the current schedule versus a proposed. He noted that the overall difference is the final posting date being delayed until August 23, 2013, but that efforts will be made to expedite the process if possible. John Boshears asked about updating the TPL Dynamic Contingency list. This is a question that needs to be directed to the R&D Special Studies Department. SPP Modeling Staff will pass along the request.

Reené Miranda motioned to approve the revised schedule. John Boshears seconded the motion. The motion passed unopposed. (**Attachment 9 - 2013 MDWG Modeling Schedule Dynamics Proposed Revision 05082013.pdf**)

Action Item: Anthony to email the new approved Dynamic schedule to the MDWG.

Action Item: Anthony will follow-up with R&D Special Studies Department about updating the TPL Dynamic Contingency list.

Agenda Item 4 – 2014 Series:

MMWG Spring Meeting Updates

Anthony gave a brief update on the spring MMWG meeting. He stated that the MMWG is working on creating an exceptions file in excel format. Once the format is established,

SPP Staff will add similar functionality to the MDWG model building process. The group also decided to reinstate the FLAT start requirement for the MMWG model set. There was some discussion to move to another version of PSS/e; however, there are still several questions that need answered prior to making a decision.

Model Selection

The group reviewed the proposed model selection for the 2014 Series MDWG powerflow, dynamics, and short circuit sets. Anthony Cook stated that the powerflow and dynamic models are based on the MMWG 2014 Series model set and the short circuit models are based on anticipated SERC short circuit models.

Scott Rainbolt asked if the group would be interested in building a 2025 spring model in order to schedule maintenance outages for a ten year spring case. Members asked if maintenance outages were really scheduled 10 years out and if everyone wanted another model to review and perform contingency analysis on. Some said they may consider it if a formal request was made from the ESWG or if another model was removed. There was not a consensus for the extra model.

Nathan McNeil wanted to note that a separate “ASPEN users” short circuit model may not need to be built due to software enhancements. He also stated that he would volunteer to help perform more testing to solidify an answer.

Nate Morris asked the group if there are concerns with only having a current year and a six year short circuit model. His reason was that if a safety issue is found when studying the current year model, there is no time to correct the problem. He asked if a 2 year out model should be built so that members could study it and have time to plan corrections if anything is found. Nathan McNeil pointed out that the sequence data is provided in each powerflow case and that the external data would be the same. John Boshears stated that short circuit studies are concerned with today and not the future. He stated that unless the changes are significant, the fault current should not change that much. The group decided not to add another model to the short circuit set. John Mayhan added that the new TPL-002-04 standard will require “single line to ground” fault studies on a 10 year model. Staff will need to look at the TPL standards further.

Nate Morris motioned to approve the proposed model selection. Nathan McNeil seconded the motion. The motion passed unopposed. (**Attachment 10 - 2014 Series Model Selection.xlsx**)

Action Item – Check with Doug Bowman to make sure that SPP has identified the correct short circuit cases to address TPL studies.

Action Item – Get with Doug Bowman to make sure we have all of the sequence data needed for TPL.

Schedule

The group reviewed the proposed schedule for the 2014 Series model build. Some of the members expressed concerns with some of the dates and time frames in the proposed schedule. Due to complexity of making changes to the schedule, Anthony asked for individuals to email any concerns to him. The schedule will be tabled and

discussed at a future conference call. (**Attachment 11 - MDWG 2014 Series Schedule_DRAFT.pdf**)

Action Item – Members to email Anthony with concerns of the draft schedule.

Agenda Item 5 – Modeling Practices:

Aux Load, Gross vs. Net, Pmax, Pgen, Pmin

Anthony Cook began the discussion with a background of the topic. He stated that this topic has been discussed for a few years in the Model Improvement Task Force (MITF) and that the group's decision was to allow the practice of modeling either net or gross generation output as long as certain steps were followed. This can be found in the posted MITF whitepaper. Anthony stated that NERC is working to condense the MOD standards into three standards and that one of the standards, MOD B, deals with this issue. Reené Miranda is on the drafting team of MOD B and stated that the standard is currently leaning toward the modeling of gross output as Pmax and explicitly modeling station load. Reené also added that Pmax should also consider the transmission service associated with that generator.

Chris Haley stated that in previous years, generation and load data was collected directly from the resource planning members for the EIA-411 effort and was use to report capacity and demand to NERC. Starting with 2013, this data was taken from the 2013 MDWG model build to populate the EIA-411. SPP expects to use this same methodology going forward in hopes to obtain consistency between NERC assessments and modeling numbers. This methodology change has brought to light a number of discrepancies with reported generation data between the models and the member supplied resource planning data. Also, data reported by the generation owners in the EIA-860 report doesn't coincide with the other two previously mentioned mediums.

Anthony and Chris gave a presentation that showed the discrepancies between the pmax value on units in the models and pmax value reported in the EIA-860. Reené asked for SPP to create a list showing Pmax discrepancies for each company. Scott Rainbolt asked for a link to the EIA-860 data.

Anthony stated that there is less confusion when Pmax represents the gross seasonal capability of a unit and the station load is explicitly modeled. Mo asked for a worksheet to be added to the data submittal workbook to map station load to generators. SPP proposed creating a standard to model gross seasonal capability as Pmax and explicitly model station load. This topic will be discussed further at a future meeting. (**Attachment 12 - Generation Reporting Differences.pptx**)

Action Item – Anthony and Chris to compile a list of pmax discrepancies for each company and send to members.

Action Item – SPP Staff to add station load mapping worksheet to the data submittal workbook.

Modeling of Mothballed vs. Retired/Decommissioned Units

This item is in conjunction with action item # 89. In some cases, a unit is to stay in the model but it will be “mothballed” meaning it isn’t planned to be used. One issue is that there is not a modeling standard for these units. The unit could be turned on and dispatched in a study which could give incorrect results. Another issue that Chris Haley stated is that these units are still being included in the seasonal capability reported in the EIA-411. One possible improvement is to give the unit a specific identifier and make the Pmax/Pmin value zero. This will be discussed more in depth at a future meeting.

Modeling granularity for units

Anthony stated that in some instances, some smaller units are aggregated into one. An example is three 1.5 MW diesel units being modeled as one 4.5 MW unit. He asked the group how it would be modeled if one of the units was taken out for an outage. He stated that improvement is needed for more granularity. This will be discussed more in depth at a future meeting.

Not modeling known projects

Anthony asked the group if there is any reason not to model a planned project. The group didn’t have any reasons not to. Joe Fultz stated that if the in-service date isn’t firm, be conservative and model it later than it might actually be complete.

Tie Line Rating Methodology: Planning vs. Real-time

Anthony brought this question from the MMWG to the group. The concern is that planning models have different emergency ratings than what Operations would use. Mo Awad stated that each company has to develop a rating methodology. He stated that Ops has 30 minutes to accommodate the emergency rating. Anthony questioned if Rate B in the planning models has a time limit associated with it. The answer was that in some instances it might and some might not. The consensus of the group is that the most limiting element’s rating is used in the planning models regardless of time constraint.

Agenda Item 6 – Model Validation/Verification Efforts:

Governor Response Survey/Governor and Exciter Testing

Scott Jordan gave a presentation on Governor Response Survey and Governor and Exciter Testing being performed by SPP. SPP has been participating in an ERAG-MMWG project working on a dynamic case that can be used for a frequency response study. The situation the group has found is that the governor models are applied to the case per MOD Standards correctly, but there are plant controls that may be overriding the governor response. Currently the ERAG-MMWG is trying to devise a way to reproduce the response seen in the field by applying either a GGOV1 or LDFRQ.

Scott Jordan and Zach Bearden are in the process of testing/verifying governor and exciter models using DSA tools. These results will be coupled with the output of a Python Dyre file checker in order to identify suspect data. This will be an on-going process and either Scott or Zach may request assistance with dyre file data verification. **(Attachment 13 - SPP_GOV_SUR_Model_Imrpv.pptx)**

EMS State Estimator Comparison

This item was tabled until the next meeting.

Agenda Item 7 – MDWG Charter Updates:

Members are to provide updates to Anthony for discussion at the next meeting.
(Attachment 14 - MDWG_Charter_12-15-2008_approved.pdf)

Action Item – Members to supply updates to the MDWG Charter to Anthony Cook.

Agenda Item 8 – Other:

Data Submittal Workbook Updates

Anthony asked the group to help clean up the generator and expanded bus names tabs of the data submittal workbook. He also asked the members to try and keep fuel types standard. Dona Parks suggested creating a drop down selection. The members asked Staff to add a worksheet that tells the members what they need to help keep updated.

Action Item – Staff to create a member's responsibility worksheet within the data submittal workbook.

Breaker Modeling/Automated Contingency file

Anthony stated that a few of the members are now utilizing the capability with PSS/e to model breakers. The issue with this is that it creates zero impedance lines and adds several new bus numbers to the models. Brandon Hentschel asked the group if it would be more beneficial to add a special character to the breaker bus name. This would identify where a breaker is without adding zero impedance lines and new buses. It would also allow for a python script to be created that can automate a breaker-to-breaker contingency file. There was concern from some of the members that changing the bus names would impact several processes that use the current bus names. He asked the group to put some thought into it and let him know of any other concerns.

New BES Definition

Scott Jordan gave a brief presentation on the new definition of the Bulk Electric System (BES). The covered in the presentation were the Phase 1 Definition and Inclusions, Exception Process, and Future Changes. Right now the effective date for the new BES Definition is July 1, 2013. The SPP Modeling Contacts asked if the presentation could be posted. **(Attachment 15 - MDWG_Charter_12-15-2008_approved.pdf)**

Action Item – Anthony to distribute the presentation on the new BES definition.

MOD Training

Anthony discussed putting together MOD training prior to the start of the 2014 Series MDWG model build. He is going to set up a Doodle poll to get something scheduled.

Action Item – Anthony to set-up a Doodle poll to get MOD training scheduled.

Transformer Zero Sequence Data

This item was tabled until the next meeting.

CBA Dispatch in MDWG Models

John Boshears asked if a CBA dispatch will be incorporated into the MDWG model build in the future. Anthony stated that he doesn't know if there will be any changes to the way the MDWG model are built.

Agenda Item 9 - Closing Administrative Duties:

Review of Action Items:

1. *Scott Jordan to send out the WECC presentation to the MDWG.*
2. *Anthony to send out TWG background material, regarding the AQ process, to the MDWG.*
3. *John Mills to gather Tariff language regarding generation retirement and provide to the MDWG.*
4. *MDWG members provide Anthony with ideas of how to model generation retirements for MDWG and ITP models.*
5. *Anthony to email the new approved Dynamic schedule to the MDWG.*
6. *Anthony will follow-up with R&D Special Studies Department about updating the TPL Dynamic Contingency list.*
7. *Check with Doug Bowman to make sure that SPP has identified the correct short circuit cases to address TPL studies.*
8. *Get with Doug Bowman to make sure we have all of the sequence data needed for TPL.*
9. *Members to email Anthony with concerns of the draft schedule.*
10. *Anthony and Chris to compile a list of pmax discrepancies for each company and send to members.*
11. *SPP Staff to add station load mapping worksheet to the data submittal workbook.*
12. *Members to supply updates to the MDWG Charter to Anthony Cook.*
13. *Staff to create a member's responsibility worksheet within the data submittal workbook.*
14. *Anthony to distribute the presentation on the new BES definition.*
15. *Anthony to set-up a Doodle poll to get MOD training scheduled.*

Next Meetings Place and Date:

Conference Call June 2013, Date TBD

Face-to-Face November 2013, Date TBD

Next Meeting Topics:

1. 2014 Series MDWG Schedule
2. Pmax Standardization/Modeling
3. Modeling Practice for Retired Generation
4. Modeling Practice for *Mothballed Units*
5. *Modeling Practice for Unit Granularity*
6. *EMS State Estimator Comparison*
7. *MDWG Charter Updates*
8. *Transformer Zero Sequence Data*



Adjourn Meeting

Nate Morris motioned to adjourn the meeting, Nathan McNeil seconded the motion. With no further business to discuss, the MDWG adjourned.

Respectfully submitted,
Anthony Cook
SPP Staff Secretary

	Action Item	Responsible Parties	Date Originated	Date Updated	Progress	Notes
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	5/16/2013	In Progress	Further review with the new NERC MOD standards being developed.
50	Reformat the MDWG procedure manual and add hyperlinks for referenced documents	Anthony Cook	8/6/2010	5/16/2013	In Progress	Currently working on updates from the MMWG manual.
57	Determine the standards for stability load data	Scott Jordan	8/6/2010	5/16/2013	In Progress	Scott to give update of TSTF discussion at May 8, 2012 meeting. Being discussed at the MMWG.
71	Staff to review previous meeting minutes for resolution of any language discrepancies in the SPP Tariff about Uniform Generation Modeling	Anthony Cook	11/8/2011		In Progress	
72	Staff to provide background information on reasons for choosing 20 MVA for machines and aggregate plant capacity for Uniform Generation Modeling when modeling auxiliary load	Staff	11/8/2011	5/8/2012	In Progress	This has been pushed back to the MITF for justification per the 12/6 meeting.
76	Look for ways to shorten the Dynamic Build.	Scott Jordan	2/8/2012	5/16/2013	In Progress	Internal Build? When could that take effect? Scott Jordan is attending training.
83	Ask TWG to review Attachment AQ for special circumstances.	SPP Staff	5/8/2012	5/16/2013	In Progress	Adding load to new substation due to load growth because existing substation is at capacity. An AQ task force was created.
84	RTO/RE staff and MDWG to address data reporting requirements and enforceability for independently owned generation and transmission assets.	MDWG/Staff	8/29/2012	11/13/2012	In Progress	TWG action item: Who is responsible, When data exchange is required, How to enforce data exchange.
85	SPP Staff to compile a list of LSEs	SPP Staff	11/13/2012	5/16/2013	In Progress	Compile a list to determine how many LSEs don't supply data as a percentage base.