

**Southwest Power Pool  
MODEL IMPROVEMENT TASK FORCE**

**September 13, 2011**

**2:30 P.M. – 4:00 P.M.**

**Teleconference**

**• M I N U T E S •**

The following Model Improvement Task Force (MITF) members were in attendance:

Travis Hyde – Oklahoma Gas & Electric (OGE)  
Don Taylor – Westar Energy (WR)  
John Fulton – Southwestern Public Service (SPS)  
Dustin Betz – Nebraska Public Power District (NPPD)

The following guests were also in attendance:

Jason Shook – GDS Associates (GDS)  
Nathan McNeil – Midwest Energy (MIDW)

Southwest Power Pool Staff in attendance included Kelsey Allen (Secretary), Anthony Cook, Scott Jordan, Mitch Jackson, Levi Lyons, and Lonnie Lindekugal.

**Agenda Item 1 - Administrative**

Travis Hyde called the meeting to order at 2:35 p.m.

**Agenda Item 2 - Generator Modeling (Net vs. Gross PMAX)**

Discussion continued from the 7/13 MITF meeting and subsequent MDWG/TWG meetings in August on modeling of generator PMAX in regards to methodology for accurate stability analysis. The poll on current member modeling methodology produced mixed results, not lending support to any one option. SPP would like to push for modeling of gross generator PMAX and auxiliary load with some rules and guidelines to be proposed by the MITF in order to be more prepared for rules and guidelines being developed by the multi-regional Model Validation Task Force. The group agreed with this solution and began discussing options utilizing the provided diagrams.

Don Taylor detailed some of the modeling in Westar. Wolf Creek power station is modeled as diagram 1. The problem with modeling versus real operation is that the station power load can be served from any one of the units. Generally, individual unit station power load is served off the generator terminal bus. This should be done unless there is a compelling reason not to, i.e. combined cycle plants. Diagram 2 would be more like combined cycle modeling.

Don Taylor brought up concern about much of the Tariff language being in terms of net generation, including operational and settlement situations. John Fulton suggested that a conversion process between net and gross be set up to mitigate those concerns. Following this, for combined cycle plants option 2 would still work and net would be equal to gross.

Some corrections were suggested to diagram 3. The load labeled as Gen Aux would be more accurately labeled as station power and the load labeled as Station Service would be more accurately labeled as startup load. Startup load is typically off when gen is on and on when gen is off.

Auxiliary loads typically scale with generator output. John Fulton was asked maximum auxiliary load should be shown in a report format and SPP determine appropriate load values of other output levels from the load flow models. Dustin Betz confirmed that NPPD models auxiliary load at maximum for all dispatch levels for a simplified and more conservative approach. Don Taylor stated that for certain plants change in auxiliary load levels could be significant, but was amenable to the NPPD method.

Kelsey Allen urged that rules and guidelines to filter out certain machines need to be developed to limit unnecessary modeling of generator auxiliary load. He suggested that guidelines similar to those used by WECC be adopted by SPP. After discussion, the group agreed that a 20MVA lower limit could be used in determining when to model auxiliary load and all auxiliary load should be modeled as maximum value.

*Action Item: Staff to edit the MITF Whitepaper to include a new procedure and rules for the Uniform Generation Modeling section and send out to members for review.*

### **Agenda Item 3 – Modeling Timeline**

Staff met internally to discuss issues with the current model building timeline and the reasons for recent complaints. Staff highlighted this discussion with the MITF and pinpointed what staff believes to be the major issues with the MDWG Build 1 models: incorrect/lacking data, load forecast timing, and missing NTC projects. These issues were confirmed by the group.

Staff proposed the option to move to a single build in order to encourage data submitting companies to provide accurate data with the major annual update; the issue of missing NTC's could be addressed by staff outside of Model On Demand and the timing of new load forecast data will be different with every company and could remain to be an issue. Don Taylor and John Fulton went on to detail that overall company load may not be a major issue with some companies not being able to provide data based new load forecasts during the annual model update, but that load distribution could significantly change and would become an issue when moving to a single model build. Lagging a year behind could get utilities into an operational curtailment issue.

The group discussed the need to provide models in a timelier manner, both power flow and dynamic. Upon approval of the new TPL-001, studies are going to require more

time. John Fulton focused on the need to get dynamic models sooner, stressing that the current timeline is unacceptable. Staff agrees. John suggested the concept of a “build 1.5” possibly in the March timeframe in order for companies to have a chance to update load forecasts. Staff stressed that there are some processes that cannot wait on a build 1.5, much less a build 2. John Fulton summed up the discussion on the power flow model development and said that if SPP is willing to apply NTC idevs to the MDWG B1 models, then the major issue with that set would be solved.

Discussion turned to stability model development. John Fulton asked why Powertech Labs is still involved in development. Don Taylor stated that stability model data should be clean and we should be building in house, echoing John’s concern. Scott Jordan explained that SPP is currently discussing building models in house but is not currently equipped to make the move due to staffing concerns.

The group overall was amenable to Staff’s proposal but requested that a new schedule be developed, demonstrating Staff’s ideas, for review and to facilitate future discussion.

#### **Agenda Item 4 – Closing Administrative Duties**

The group agreed to wait to schedule another meeting until the current action items are complete and each member has had time to review new materials.

With no further business to discuss, the meeting was adjourned at 3:45 p.m.

#### *Action Items*

1. Staff to edit the MITF Whitepaper to include a new procedure and rules for the Uniform Generation Modeling section and send out to members for review.
2. Staff to create a draft schedule based on their proposal of a new modeling timeline.

Respectfully Submitted,

Kelsey Allen  
MITF Secretary