

**DRAFT MEETING MINUTES  
MIDWEST RELIABILITY ORGANIZATION  
Model Building Subcommittee**

Holiday Inn Select, Bloomington, MN  
November 9th, 2010 – 8:00 AM – 4:00 PM

**1. Call to Order**

Chairman Burbach called the meeting to order at 8:10am

**2. Determination of Quorum**

The following members and guests were in attendance:

Alan Burbach – LES (Chair)  
Wayne Haidle – BEPC (Vice-Chair)  
Adam Flink – MRO (Secretary)  
Laura Couillard – MRO (Alt. Secretary)  
Gerry Lane – MH  
Holli Krizek – WAPA  
Luke Erichsen – MEC  
Jason Espeseth – XEL  
Kerry Marinan – ATC  
Kristian Samoila – SPC  
Justin Jorgensen – ITC  
Steve Porter – DPC  
Srinivas Vemuri – XEL (Guest)  
Denise Keys – OTP (Guest)  
Dan Rathe – MEC (Guest)  
Omar Elabbady – MAPPCOR (Guest)

Dustin Betz – NPPD (Phone)

**3. Standards of Conduct and Anti-Trust Guidelines**

Chairman Burbach reviewed the Standards of Conduct and Anti-Trust Guidelines

**4. Consent Agenda**

- a. *Changes to the Agenda*
- b. *Approve Meeting Minutes from September 9, 2010 [Attachment]*  
Upon motion by Gerry Lane, seconded by Kerry Marinan, the MBS approved the minutes, as amended.

**5. Chairman's Report**

Gerry Lane's last meeting with MBS before retirement is today

**6. Review of Past Action Items [Attachment]**

- The MBS decided to end the discussion on collecting network/energy data for generation. The MBS had been requested to document resource status of generation in the MRO

models. Although Energy Resource (ER) and Network Resource (NR) information is necessary in evaluating NERC TPL standards, the MBS contends such evidence should be vetted through sanctioned tariff administrators rather than rely on second or third hand references from the MBS.

- The MMWG will allow exceptions, allowing wind farms to regulate two busses away
- All nuclear governor models have been reviewed and removed or disabled if appropriate

## 7. 2010 Series Development

### a. *Wrap Up*

#### 1. *Dynamics Documentation & Benchmarking [Attachment]*

There are still problems with the 2010 series dynamics models. Gerry Lane reported the following:

- The MRO 2009 series runs in PSS/E versions 30.3.2 and 30.3.3 whether using a dongle or network license. No issues are reported. This is relevant background for the following remarks.
- MRO 2010 series 2011 winter peak benchmark results posted by MRO show apparent numerical instability visible in the vicinity of Maple River for some faults. Also PSS/E aborts during the simulation for other faults. While the cases generally have good no-fault performance, these problems must be resolved before the package is considered complete.
- Based on the handful of companies who have locally tested the current MRO 2010 Series package it was found it only runs if you are using a dongle. PSS/E dynamic performance (in terms of whether it runs) is inconsistent at different sites comparing PSS/E versions (30.3.2 or 30.3.3) and license (dongle or network). Few have been able to run the package in PSS/E version 30.3.3. PSS/E aborts immediately after the STRT command when using a network license.

PTI staff has done simple testing confirming the license issues reported by MH and asked that the package be updated to PSS/E version 31 or 32 before they could do any debugging. Gerry did not feel this was adequate customer support and may request MBS support with any PTI follow-up. He suggested that one or more new object files may be causing the problem. Gerry also suggested that Powertech may be able to figure out what the problem is considering the debugging capability of their software.

**Action item:** MRO staff will notify Powertech of the MRO 2010 series dynamics issues. Powertech is working with this data in the 2010 MMWG series and may come across the same issues. Gerry Lane offered to help with this communication.

**Action item:** MRO staff to perform a cross-check of object files from the 2009 series to the 2010 series.

**Action item:** MBS members to check on faults from their areas. MRO staff will determine which MBS member needs to check on each of the following faults: AG1, I7S, MTS, N4S-2, NAP, OAS (MH, Gerry Lane)

**Action item:** MBS members will provide comments to the dynamics documentation by November 30, 2010.

**Action item:** MRO staff will follow up on XEL's wind (R2) idev and make sure that it is run on the final dynamics compatible power flow models.

## **8. 2011 Series Development**

### *a. 2011 Load Flow Scope of Work*

#### *1. Midwest ISO Process Outline for the MRO 2011 Series Models [Attachment]*

Feedback from MBS to Loren:

- In solution documentation, indicate a reason for disconnecting equipment.
- Contact MRO staff for help with solution issues.

### *b. Approval of PSS/E Version 32*

#### *1. PSS/E Version 32 Quirks*

Kerry Marinan sent this information to the data reps.

#### *2. DC Conversion Issue (31 - 32) [Attachment]*

Alan Burbach will follow up with Loren Mayer regarding his email about PSSE version DC issues.

## **9. Wind**

### *a. Wind Data Spreadsheet – Semi-Annual Update*

MRO staff proposed that the wind data be collected semi-annually rather than annually as has been done in the past. Gerry Lane commented that a mid-term wind data collection would not be tied to a model series. The final mid-term wind data sheet would be labeled as being separate from any model series, representing the latest planning information. The MBS members did not see a need for a mid-term wind data collection and no motion was made to start collecting mid-term wind data.

### *b. Tatanka Wind Modeling [Attachment]*

The MBS decided that the Tatanka Wind Farm could be modeled off-line if MDU could not realistically mitigate MBS-recommended dispatch for wind generation. Such mitigation could include offsetting transactions with other data representatives.

The MBS added a sentence to the Model Building Manual encouraging data reps to use economy transactions rather than fictitious generation.

## **10. MISO MOD Administrator Report on MOD status and MODFilebuilder**

Midwest ISO staff was not present at the meeting.

## **11. 2011 MRO Models Data Request Package [Attachments]**

### *a. Schedule*

Upon motion by Gerry Lane, seconded by Jason Espeseth, the MBS approved the schedule, as amended.

b. *Cover Letter*

The MBS made a number of changes to the Cover Letter.

c. *Package Details*

The MBS made a number of changes to the Package.

d. *Model Building Manual*

The MBS made a number of changes to the Manual.

Upon motion by Gerry Lane seconded by Wayne Haidle, the MBS approved the Manual, Data Request Package and Cover Letter, as amended.

**Action item:** MRO staff will compile list of PSSE zones including columns for company, zone number, zone name (PSSE), description and comment. Description and comment fields will be collected from the Data Reps.

**Action item:** MRO staff to determine idv naming convention for 2011 series power flow updates (pass2 and beyond)

e. *Company Workbooks*

Adam Flink reviewed a number of changes to the Company Workbook.

The MBS decided that all transactions should be entered in both company's workbooks. To/from, from/to transaction pairs in a single workbook for representing remote generation will not be allowed in the 2011 series.

f. *MOD Data Submitter Document [Attachment]*

Gerry Lane reviewed a number of changes made to the document with the MBS.

## 12. Other Business

a. *IDV or Python update files*

MRO will accept either IDV or Python. Data reps will be warned that Python scripts do not produce PSSE output like IDVs do. This will limit the ability of MRO staff and the data rep to review the execution of the Python script.

b. *MRO Model Practices for External Area Generation [Attachment]*

See 11e.

c. *Ratings Methodology*

The MRO currently associates ratings as follows:

<b>Rating Type</b>	<b>PSS/E</b>	<b>MISO MOD</b>
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Continuous	Rate A	NORM
Emergency	Rate B	STE
Conductor	Rate C	LTE

Since the MRO has limited control over how end users may utilize these ratings, some MRO entities have deviated from this practice and have instead assigned LTE = NORM or LTE = STE. The MBS does not formally endorse either practice, but recognizes the potential for misuse by end users of ratings submitted by MRO data representatives. The MBS will therefore notify all MRO data representatives they are not bound by previous practices in deference to risk management of their facility ratings.

*d. Normally Open Facilities*

*Kerry Marinan shared with the group the suggestion that Normally Open Facilities have their circuit IDs change to NO to indicate their normally open status. Identification of normally open facilities in a power flow was a request during an audit of one MMWG members.*

### 13. Reports

*a. Variable Generation Modeling – Srinivas Vemuri*

- Conference covered types of generators, groups working on models.
- NERC may be producing standards for wind farms and solar
- Comparison of generic models and user models shows that they are very close. Performance of generic models is acceptable for model building.

*b. Workshop on Large-Scale Integration of Wind Power into Power Systems –Gerry Lane*

- Difficulty in obtaining parameters for generic models
- Specific case studies of wind modeling issues
- Useful materials from meeting, available to MRO

*c. ERAG MMWG – Kerry Marinan*

1. *GSU Phase Shift Angle*
2. *Interchange Definition*

Kerry provided a report to the MRO PC on the October 2010 MMWG meeting. He shared this report with the MBS.

**Action item:** MRO staff to request specific changes to Dynamics Models with Dynamic Model Documentation in the Data Request Package.

**Action item:** MRO staff to collect information about which combined cycle generators have governor models.

*d. MRO Modeling Contractor Report – Loren Mayer*

Midwest ISO staff was not present at the meeting.

#### **14. Administrative Duties**

- a. *MBS –Schedule 4 meetings for 2011 (March 8, June 7, September 8, November 15)*  
MBS agreed to discuss meeting schedules after the PC meeting November 17<sup>th</sup>. MRO staff will send tentative schedule dates close to 2011 PC meetings and an e-mail discussion/vote will be initiated.
- b. *PC –November17th*
- c. *Review of Action Items*

#### **15. Adjourn**

Upon motion by Jason Espeseth, seconded by Gerry Lane, the MBS adjourned at 4:17pm.