



**MEETING MINUTES**  
**MIDWEST RELIABILITY ORGANIZATION**  
**Scenario Assessment Task Force**  
MRO Offices – Roseville, MN  
December 17, 2008 – 8:00am – 4:00pm

**1. Call to Order**

Chair Zhu called the meeting of the Scenario Assessment Task Force to order at 8:35am.

**2. Determination of Quorum**

Chair Zhu welcomed all those in attendance. Mr. Porter determined that a quorum was present. The following members, guests and MRO staff were present:

**Members Present**

Wenchun Zhu, ATC (call-in)	Keven Szarkowski, BEPC
Jay Porter, GRE	Jeff Mitchell, RFC
Matt Ellis, MISO	Hamish Wong, WPS
Rich Quest, XEL	Joe Berry, ITC (call-in)

**Members Absent**

Randy Oye, XEL

**Guests**

Hoa Nguyen, MDU	Paul Kure, <i>ReliabilityFirst</i>
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**Staff Present**

John Seidel	Dan Jesberg
Salva Andiappan	

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

Pursuant to Policy and Procedure 4, Chair Zhu reviewed the Standards of Conduct and Anti-Trust Guidelines.

**4. Consent Agenda**

Chair Zhu reviewed the meeting agenda and solicited the task force for any comments, additions, or changes.

***Item 8 was expanded to include a report on the draft narrative developed by Mr. Ellis.***

**5. Approve Minutes of October 13, 2008 Meeting**

Mr. Jesberg called for discussion on the meeting minutes of the October 13, 2008 meeting.

***Upon motion duly made by Mr. Wong and seconded by Mr. Ellis, the Scenario Assessment Task Force unanimously approved the minutes of the October 13, 2008 Scenario Assessment Task Force meeting as amended.***

**6. Wind Scenario Definition**

*a. E-mail communications with Mark Lauby*

During previous SATF meetings, there had been debate on the interpretation of the energy requirements laid out in the scenario assessment letter. John Seidel sent an email to Mark Lauby in October to requesting clarification.

The questions posed by Mr. Seidel related to the "addition alternative energy" requirements and the base year to be used for calculating that energy. Mr. Lauby confirmed in his response that 2017 should be used as the base year for energy and the additional energy percentage (15%) should be in addition to the percentage of energy (4.4%) that is generated by the existing wind resources as of 2008.

According to Mr. Ellis's calculations, the projected nameplate wind resource requirements predicted in the MRO-US portion of the JCSP are very close to those predicted from the Mr. Seidel's LTRA based calculations.

*b. Hoa Nguyen's discussion with Canadian entities*

Mr. Nguyen gave a recount of his discussions with representatives of the Canadian entities. He believes that a complete set of scenario assessment data on the Canadian entities should be available by March of 2009.

Discussion was held as to whether or not to poll the interconnection queues of the Canadian entities to gather data on proposed generation. MRO staff will continue to work with the Canadian entities for the purposes of gaining access to the queues and/or cooperating with them to form their own independence scenario assessment additions.

*c. Transaction issues related to wind resources*

Paul Kure lead a discussion on how the MRO, RFC, and possibly other neighboring regions will incorporate transactions into the energy requirements laid out in the scenario assessment letter.

RFC expects that MRO export increases dues to increased wind resources in the MRO region will be a major contributor to its ability to meet the requirements of the scenario assessment. Exactly how MRO exports, and the associated transmission and operational issues, will be affected in the scenario is not yet clear.

**7. MISO Presentation**

Mr. Ellis gave a short presentation on the 11 year historical average capacity factor of the MRO-US region. This data was used to calculate this average was taken from the DOE Mesoscale Wind data set.

Mr. Ellis also presented an updated version of the JCSP expansions spreadsheet. This update was a modification which only included the MRO-US region.

## 8. Draft of the 2008 MRO Scenario Assessment

### a. Draft MRO-SATF report

Mr. Ellis presented to the group a skeletal draft of portions of the scenario assessment narrative. The primary issues of discussion included on-peak transactions, transmission issues, operational issues, future fuel mix projections, and wind resource forecasting.

Operational issues were considered to be a major piece of the scenario assessment. Overall, nine issues have been identified for further discussion.

- Load management with the projected wind connected to the system
- Spinning reserve requirements needed to maintain reserve margins
- Baseload unit mothballing/retirements and its negative impacts
- Lower system inertia
- Wind turbine ambient temperature limitations
- Overall reduction in short circuit currents (backup MVA)
- Accuracy of short-term and long-term wind forecasting
- Out of phase ramping
- Congestion management issues

Determination of megawatt changes in fuel mix was considered too difficult to determine given the large number of variables in play and the limited resources available to the task force.

***The general consensus was that the potential effects on the non-wind proposed generation in the LTRA base case would not be considered and therefore those values would remain unchanged. However, the fuel mix as a series of percentages will change as the wind generation is injected into the LTRA scenario case.***

#### Action Item:

Mr. Ellis and Mr. Wong are to work together to further develop and expand on the operational issues section.

#### Action Item:

Mr. Seidel and Mr. Jesberg are to draft the full scenario assessment narrative. Discussions made during recent SATF meetings as well as the skeletal narrative developed by Mr. Ellis are to be built into the narrative. This narrative is to be completed and submitted for comment by January 9<sup>th</sup>, 2009. The commenting period will be for three weeks and be restricted to only members of the SATF.

MRO staff will compile the comments made during the commenting period and integrated them into narrative for discussion during the next scheduled meeting.

b. Transmission related NERC questions  
Not directly discussed. See Item 8a.

c. Generation, demand, resource adequacy related NERC questions

Not directly discussed. See Item 8a.

d. Operation related NERC questions  
Not directly discussed. See Item 8a.

e. Assessment Overview  
Not directly discussed. See Item 8a.

Wenchun Zhu

**9. Update LTRA Spreadsheet Modification**

Chair Zhu proposed that the base case LTRA spreadsheet be modified to include fuel type breakdown of the "proposed generation." This would allow for individual confidence factors to be developed for the various fuel types. Mr. Lauby has requested that the SATF provide some comment in the narrative as to how fuel mix might be affected in the scenario. These spreadsheet modifications should allow for a calculation of the resulting fuel mix.

**Action Item:**

Mr. Jesberg is to modify the LTRA spreadsheet to accommodate a breakdown of the "proposed generation" by fuel type and a breakdown of the "confidence factor" by fuel type. Mr. Jesberg and Mr. Seidel will work together to sort the MISO queue data to determine the "proposed generation" values. The SATF will populate the confidence factor fields during its next face-to-face meeting.

**10. Other Business**

No other business.

**11. Next Meetings**

*a. Scheduled 2009 meetings*

Following a commenting period, the next face-to-face meeting will center on discussion of the resulting scenarios assessment narrative draft. For 2009, it is expected that most of the SATF functions can be performed through conference call meetings and email exchanges.

2009 Schedule:

February 9<sup>th</sup>, 2009 8:30pm to 4:00pm CST

Conference calls and additional future meetings will be scheduled as needed.

All face-to-face meetings are tentatively to be held at the Holiday Inn Select in Bloomington, Minnesota.

**12. Adjourn**

Having no further business, Chair Zhu adjourned the meeting at 3:00pm.

Prepared by:

Dan Jesberg, Staff Engineer, Midwest Reliability Organization

Reviewed and Submitted by: