

Minutes Resources Subcommittee

July 27–28, 2011
Golden, Colorado

A meeting of the North American Electric Reliability Corporation (NERC) Resources Subcommittee (RS) was held on July 27–28, 2011 in Golden, Colorado. The agenda and attendance list are attached as **Exhibits A** and **B**, respectively.

Resources Subcommittee Chair Terry Bilke presided and Larry Kezele announced that a quorum was present. Larry Kezele read the applicable Notice of Public Meeting.

Antitrust Compliance Guidelines

Larry Kezele acknowledged the NERC Antitrust Compliance Guidelines.

April 20–21, 2011 Meeting Minutes

The subcommittee approved the April 20–21, 2011 meeting minutes.

Administrative

The RS reviewed and revised the RS Organization and Assignments, the RS Roster, and the RS Survey Contacts.

Working Group and Task Force Reports

1. **Frequency Working Group** — Chair Sydney Niemeyer reported that the Frequency Working Group met on July 27, 2011. The working group decided to develop a list of events, by Interconnection, by September 1, 2011, for Bob Cummings' review. Following his review, he will forward the final list to Chair Bilke, who will forward it on to the Reliability Metrics Working Group.
2. **Inadvertent Interchange Working Group** — Chair Don Badley reported that the working group has not met since the subcommittee's last meeting.
3. **Operating Reserves Working Group** — Chair Larry Akens reported that the working group has not met since the subcommittee's last meeting. There will begin to be some interaction between the BARC standard drafting team and the working group.
4. **ACE Diversity Interchange Task Force** — Chair Don Badley stated that the task force met on July 27, 2011 to finalize its whitepaper. He reviewed the latest

draft of the whitepaper, which the subcommittee modified during its discussion. Robert Rhodes moved to endorse the ACE Diversity Interchange White Paper dated July 28, 2011 (**Exhibit C**). The subcommittee briefly discussed the criteria it might use for approving new ACE Diversity Interchange programs. The subcommittee approved the motion. Larry Kezele was tasked to inform the Interchange Subcommittee and the Operating Reliability Subcommittee of the subcommittee's action and to seek additional comments and endorsement from the two subcommittees.

5. **Working Group Meetings** — The Frequency Working Group will meet on the morning of October 26, 2011 from 9 a.m. – 12 p.m. The subcommittee meeting will begin at 1 p.m. on October 26, 2011 and will meet from 8 a.m. – 5 p.m. on October 27, 2011. The Inadvertent Interchange Working Group will meet from 8 a.m. – 12 p.m. on October 28, 2011.
6. **Nominating Committee** — Chair Bilke would like to have the subcommittee more actively address open action items. To help with this, he suggested that subcommittee members reach out to their contacts for additional support, for example, by increasing the membership on its working groups. The new working group members could also serve as proxies and possible alternates as existing members leave the subcommittee.

Chair Bilke also reported that his term as chair is expiring at the end of 2011. He asked that the subcommittee consider forming a nominating committee to develop a slate of officers for consideration at its next meeting. Mike Potishnak volunteered to serve as chair of the nominating committee.

NERC Related Activity

1. **Time Error Correction Elimination Field Trial** — Chair Bilke will provide a Manual Time Error Correction Elimination Field Trial status report to the NERC Operating Committee at its September 2011 meeting.
2. **Sharing ANI/SNI Data in Real Time to Improve Reliability** — Mike Oatts reported that the Operating Committee requested further input from the Interchange Subcommittee, the Resources Subcommittee and the Operating Reliability Subcommittee related to a project to share, within each Interconnection, actual and scheduled net interchange in real time. Some of the requested information could be made available by ICCP and an application developed. Mr. Oatts will continue to discuss this potential project with the Operating Reliability Subcommittee. FRCC has a similar application being used by FRCC balancing authorities.

3. **Input to NERC Operating and Planning Committees Related to Frequency Response** — Chair Bilke reminded the subcommittee that the NERC Operating Committee approved its Frequency Response whitepaper and also reviewed the Transmission Issues Subcommittee’s (TIS) draft *Interconnection Criteria for Frequency Response Requirements* whitepaper. The whitepapers arrive at somewhat different conclusions, which Chair Bilke will bring to the Committee’s attention at its September 2011 meeting.
4. **Frequency Response Initiative and Frequency Response Standards** — Refer to the Frequency Working Group’s report above.
5. **Frequency Response Initiative, Activity and RS Assignments** — The subcommittee discussed this agenda topic when it discussed open action items. In addition, Bob Cummings discussed potential alternative scenarios to those identified in the TIS’ *Interconnection Criteria for Frequency Response Requirements* draft whitepaper.
6. **Frequency Event Repository: Short-term (NERC Situation Awareness) and Long-term (FMA Application)** — Chair Bilke reported that it is his expectation that once Bob Cummings has completed the frequency events spreadsheet that the spreadsheet be publicly posted. A non-public version of the spreadsheet will also be available to the subcommittee.
7. **Reliability Metrics Working Group** — Jerry Rust, the Reliability Metrics Working Group’s liaison to the RS, discussed reliability metric ALR1-12 (Interconnection Frequency Response). The subcommittee is working to finalize a listing of frequency events by September 1, 2011 for use by the RMWG.

Mr. Rust informed the subcommittee that the NERC Operating Committee’s Executive Committee endorsed the *2011 Risk Assessment of Reliability Performance* report. He noted that beginning with its 2012 annual report the RMWG is transitioning to a *State of Reliability* report and that the subcommittee may be asked to contribute to its development. He also summarized the RMWG’s efforts to develop an Integrated Reliability Index.

NERC Reliability Standards and Reliability Related Documents

1. **Frequency Response Standard Drafting Team** — Chair Bilke encouraged the Frequency Response Standard Drafting Team to draft a technical reference document to support implementation of the proposed standard.
2. **Balancing Authority Reliability-based Controls Standard Drafting Team** — Larry Akens, chair of the Balancing Authority Reliability-based Controls Standard Drafting Team, summarized drafting team activities. Recently, NERC moved this standard drafting project to a higher priority. The BARC SDT is coordinating its work with the Frequency Response Standard Drafting Team.

3. NERC Operating Manual

- a. **Area Interchange Error Survey Training Document** — Vice Chair Badley, chair of the Inadvertent Interchange Working Group, reported that the working group anticipates developing a revised AIE Survey Training Document for review by the subcommittee at its next meeting.
- b. **Frequency Response Characteristic Survey Training Document** — Chair Bilke reported that the Frequency Response Standard Drafting Team will be reviewing this training document.
- c. **Inadvertent Interchange Accounting Training Document** — Vice Chair Badley, chair of the Inadvertent Interchange Working Group, reported that the working group has not yet addressed updating this training document.
- d. **Time Monitor Reference Document** — Chair Bilke reported that the subcommittee will review and revise the Time Monitor Reference Document to accommodate the implementation of the manual time error correction elimination field trial.

Resources Subcommittee Software Applications

1. **Software Applications Status Report** — Gil Tam, representing Electric Power Group (EPG), provided a summary of the applications shown below (**Presentation 1**).
 - a. Resources Adequacy
 - b. Intelligent Alarms
 - c. Area Interchange Error Monitoring
 - d. CPS and BAAL Monitoring
 - e. Frequency Monitoring and Analysis
 - f. Inadvertent Interchange
 - g. Automated Reliability Reports

Mr. Tam reported that EPG implemented the new delta frequency detection methodology on July 15, 2011 in the Frequency Monitoring and Analysis application. Following the subcommittee's extensive discussion of the preliminary results shown by the detection methodology, Sydney Niemeyer, as chair of the Frequency Working Group, will document criteria for use within the FMA application to revise the current delta frequency detection methodology. EPG will develop a monthly summary of Interconnection events for use by the Frequency Working Group. The FMA data is being used 1) to benchmark

Interconnection frequency performance (e.g., to provide data for use by the RMWG) and 2) by the Frequency Response Standard Drafting Team.

In addition, Mr. Tam reported that surveys using the Area Interchange Error application are generally initiated by a subcommittee member. WECC staff and the WECC Performance Working Group would like to have the ability to initiate an AIE survey and have the WECC balancing authorities use the WIT tool to submit the required data. To fully implement this request, Mr. Tam stated that the application may have to be upgraded. Mr. Tam will further investigate the need for an application upgrade. The subcommittee agreed by consensus that the Interconnections could use the AIE application to conduct surveys for training and diagnostic purposes.

2. **Inadvertent Interchange Application Support of TEC Field Trial** — This agenda item was not discussed.

Time Error, Frequency Performance, and Control Performance

1. **Time Error and Frequency Performance**
 - a. **Western Interconnection Trends and Events** — James Murphy reviewed the Western Interconnection frequency performance (**Presentation 2**) and Vice Chair Badley reviewed the Western Interconnection year-to-date time error reports (**Presentation 3**).
 - b. **Eastern Interconnection Trends and Events** — Chair Bilke reviewed the Eastern Interconnection frequency performance (**Presentation 4**). He will contact PJM to find a replacement for Bill Herbsleb, who previously developed the Eastern Interconnection time error reports.
 - c. **ERCOT Interconnection Trends and Events** — Sydney Niemeyer reviewed the ERCOT Interconnection frequency performance and time error report (**Presentations 5 and 6**).
 - d. **Hydro Quebec Interconnection Trends and Events** — Chair Bilke reviewed the Hydro Quebec Interconnection frequency performance and time error report (**Presentation 7**).
2. **CPS1, CPS2, BAAL Data Trends** — In closed session, the subcommittee discussed CPS1, CPS2, and BAAL data trends.
3. **DCS Data Trends** — In closed session, the subcommittee discussed DCS data trends.
4. **Status of New/Reconfigured Balancing Authority Checklist** — Mike Potishnak and Chair Bilke will review the revised balancing authority checklist with Jim Hughes, NERC's manager of organization registration and certification.

5. **Inadvertent Interchange Accounting** — Vice Chair Badley reviewed Western Interconnection on-peak and off-peak inadvertent interchange monthly balances. Vice Chair Badley and the Inadvertent Interchange Working Group will work to develop an inadvertent interchange report for the Eastern Interconnection.
6. **TEC Field Trial Observations and Statistics** — Since the Manual Time Error Correction Field Trial has not yet started, this agenda topic was not discussed.

Resources Subcommittee Action Item List

The subcommittee reviewed and updated the action item list, which is affixed as **Exhibit D**.

Dates and Locations of Future Meetings

Wednesday, October 26, 2011 (FWG)	8 a.m. – 12 p.m.	Las Vegas, NV
Wednesday, October 26, 2011 (RS)	1 p.m. – 5 p.m.	Host: TBD, WECC RS members
Thursday, October 27, 2011 (RS)	8 a.m. – 5 p.m.	Coordinator: WECC RS Members
Friday, October 28, 2011 (IIWG)	8 a.m. – 12 p.m.	
Wednesday, January 25, 2012	8 a.m. – 5 p.m.	Ft. Lauderdale / Miami
Thursday, January 26, 2012	8 a.m. – noon	Alternate: Tampa Coordinator: Don McInnis
Wednesday, April 25, 2012	8 a.m. – 5 p.m.	San Francisco
Thursday, April 26, 2012	8 a.m. – noon	Alternate: San Antonio Coordinator: WECC RS Members or ERCOT RS Members
Wednesday, July 25, 2012	8 a.m. – 5 p.m.	Boston
Thursday, July 26, 2012	8 a.m. – noon	Alternate: Portland, Maine Coordinator: NPCC RS Members
Wednesday, October 24, 2012	8 a.m. – 5 p.m.	Atlanta
Thursday, October 25, 2012	8 a.m. – noon	Alternate: Albuquerque, NM Coordinator: NERC Staff

Adjourn

The subcommittee meeting adjourned at 2:23 p.m. MDT on July 28, 2011.

Respectfully submitted,

Larry Kezele

Larry Kezele
 Resources Subcommittee Secretary