

# Minutes

## Resource Subcommittee (RS)

### Administrative

A meeting of the RS was held on October 26–27, 2011 in Las Vegas, Nevada. The agenda and attendance list are attached as **Exhibits A and B**, respectively.

RS Chair Terry Bilke presided and Larry Kezele announced that a quorum was present. Larry Kezele read the applicable Notice of Public Meeting and acknowledged the NERC Antitrust Compliance Guidelines. The subcommittee reviewed and revised the RS Organization and Assignments, the RS Roster, and the RS Survey Contacts.

### July 27–28, 2011 Meeting Minutes

The subcommittee approved the July 27–28, 2011 meeting minutes, as amended.

### Resources Subcommittee Action Item List

Larry Kezele updated the action item list, which is affixed as **Exhibit C**, based on the subcommittee's discussion.

### Resources Subcommittee Confidentiality Agreement

Larry Kezele reviewed the listing of those individuals that have signed the RS confidentiality agreement. Chair Bilke tasked Mr. Kezele with sending the confidentiality agreement to those on the RS roster that have not yet signed the agreement.

### Election of Officers

Chair Bilke informed the subcommittee that his term as chair of the subcommittee ends on December 31, 2011 and that he is not seeking reelection. Mike Potishnak reported that Don Badley and Gerry Beckerle expressed a desire to serve as either chair or vice chair. By ballot the subcommittee elected Don Badley as chair and Gerry Beckerle as vice chair. Chair Bilke will inform Tom Bowe, chair of the Operating Committee (OC), of the subcommittee's decision.

### Working Group and Task Force Reports

1. **Frequency Working Group** — Chair Sydney Niemeyer reported that the Frequency Working Group met on October 26, 2011. He will develop the Form 1's for each Interconnection by November 1, 2011. The Frequency Working Group will also meet by conference call in mid-November to review each Interconnection's list of frequency events.
2. **Inadvertent Interchange Working Group** — Chair Don Badley reported that the working group will meet on October 28, 2011. He is continuing to address inadvertent interchange

accumulations in the Eastern Interconnection. The subcommittee discussed the benefits and value of pursuing the inadvertent interchange accumulation mismatches. Gil Tam reported that the accumulation goes back to December 31, 2008. Since the beginning of 2009, the Eastern Interconnection has balanced its inadvertent interchange accumulations. The subcommittee also discussed locking down the inadvertent interchange accumulations of each balancing authority and agreed that the final resolution of the Eastern Interconnection accumulated inadvertent interchange must be presented to the Operating Committee for approval.

3. **Operating Reserves Working Group** — Chair Larry Akens reported that the working group has not met since the subcommittee's last meeting. However, the Balancing Authority Reliability-based Controls (BARC) standard drafting team (SDT) and the Frequency Response SDT are developing BAL-012 (Operational Reserves Planning Standard).
4. **ACE Diversity Interchange Task Force** — Chair Don Badley stated that the draft white paper was sent to the OC and the Interchange, Resources, and Operating Reliability Subcommittees for comments. Comments are due by November 4, 2011.
5. **Working Group Meetings** — Chair Bilke  
The Frequency Working Group will meet on the morning of January 25, 2012 from 8:00 a.m. – 12:00 p.m. The subcommittee meeting will begin at 1:00 p.m. on January 25, 2012 and will meet from 8:00 a.m. – 5:00 p.m. on January 26, 2012.

## NERC Related Activity

1. **Time Error Correction Elimination Field Trial**  
Chair Bilke provided the subcommittee a Manual Time Error Correction Elimination Field Trial status report. The field trial implementation project team is developing a document entitled *TEC Field Test Options Discussion* for presentation to the OC at its December 2011 meeting. To enable the field trial implementation project team to better assess options available to implement the field trial, Chair Bilke developed a survey, which is available at <http://www.surveymonkey.com/s/5PG2KSG>. He encouraged the subcommittee and the field trial implementation project team to participate in the survey and to provide comments on the *TEC Field Test Options Discussion* document by October 28, 2011.
2. **Sharing ANI/SNI Data in Real Time to Improve Reliability**  
Mike Oatts reported that the OC requested further input from the Interchange Subcommittee (IS), the RS and the Operating Reliability Subcommittee (ORS) related to a project to share, within each Interconnection, actual and scheduled net interchange in real time. Actual net interchange information could be made available by ICCP and an application to be developed. However, it may be more problematic to receive scheduled net interchange by ICCP. Mr. Oatts is developing a survey for discussion by the IS and ORS to aid in the assessment determining how to move this project forward.

3. **Request for Comments on the ACE Diversity Interchange White Paper**  
See ACE Diversity Interchange Task Force report above.
4. **Support for Frequency Response Initiative and Frequency Response Standards**  
Refer to the Frequency Working Group's report above.
5. **ALR1-12 Frequency Response Metric Data Collection Process**  
Matthew Varghese provided a summary of a document entitled *ALR1-12 Frequency Response Metric Data Collection Process*, draft dated September 23, 2011 (**Presentation 1**). The frequency response data collection process is a 10-step process which begins with CERTS/EPG producing a monthly spreadsheet for the four Interconnections and ends with publication of quarterly frequency response metric data on NERC's reliability indicators webpage by the Performance Analysis Subcommittee. Chair Bilke stated that NERC staff and the Frequency Working Group will continue to use the *ALR1-12 Frequency Response Metric Data Collection Process* to gather data related to frequency events. Mr. Varghese has frequency data from the Eastern and ERCOT Interconnections; however, he needs frequency data from the WECC and HQT Interconnections.
6. **Housekeeping Tasks for New, Reconfigured, or Retiring Balancing Authorities**  
Mike Potishnak provided a summary of a document entitled *Housekeeping Tasks for New, Reconfigured, or Retiring Balancing Authorities* included in the agenda. The subcommittee proposed several revisions (**Exhibit D**).
7. **Frequency Response Initiative, Activity and RS Assignments**  
See Frequency Working Group discussion above.
8. **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 will be publicly posted. A non-public version of the spreadsheet will also be available to the subcommittee.
9. **Reliability Metrics Working Group**  
See discussion of *ALR1-12 Frequency Response Metric Data Collection Process* above.

## NERC Reliability Standards and Reliability Related Documents

### 1. Frequency Response Standard Drafting Team

Chair Bilke reported that the Frequency Response Standard Drafting Team posted BAL-003-1 (Frequency Response and Frequency Bias Setting) for comment on October 25, 2011. The comment period ends on December 8, 2011.

### 2. Balancing Authority Reliability-based Controls Standard Drafting Team

Larry Akens, chair of the BARC SDT, summarized drafting team activities (**Presentation 2**). The drafting team is developing four reliability standards for stakeholder consideration:

- a. Revisions to BAL-001 (Real Power Balance): CPS2 is retired and BAAL added
- b. Revisions to BAL-002 (Disturbance Control for Loss of Resource): Standard revised to provide more clarity
- c. BAL-012 (Operational Reserves Planning): Addresses Regulating, Contingency and Frequency Responsive Reserves
- d. BAL-013 (Disturbance Control for Loss of Load): Similar to BAL-002

Mr. Akens stated that the drafting team anticipates posting the above standards for public comment in mid-December 2011.

### 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 Characteristic Survey Training Document may be retired when the work of the Frequency Response Standard Drafting Team is completed.

#### 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 Manual TEC Elimination Field Trial project team will develop a Time Monitor Procedure that reflects the recommendation of the Manual Time Error Correction Elimination Field Trial implementation project team for use by the Interconnection Time Monitors.

## Resources Subcommittee Software Applications

1. Gil Tam, representing Electric Power Group (EPG), provided a summary of the following applications (**Presentation 3**).
  - 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 also noted that EPG implemented a sign convention change in the Frequency Monitoring and Analysis application and stated the following regarding the frequency event detection methodology:

Delta Frequency Detection Methodology – A frequency event is detected and captured if during a 15-second rolling window the frequency jumps beyond the frequencies shown in the table below for each Interconnection. The thresholds in the table are being monitored and tuned to ensure the appropriate significant events are captured. Currently EPG is investigating a more effective threshold for HQT.

2. **NERC-CERTS-RS Inadvertent Interchange Application Support of TEC Field Trial**  
The Inadvertent Interchange Working Group will develop metrics to support the Manual Time Error Correction Elimination Field Trial.
3. **North American SynchroPhasor Initiative (NASPI) and Real-Time Dynamic Measuring System (RTDMS)**  
Chair Bilke reported that reliability entities can request access to RTDMS. Robert Rhodes informed the subcommittee of a RTDMS training workshop in mid-November 2011.
4. **ARR Daily Reports**  
Sydney Niemeyer reported that the event timing ( $T_0$ ) is not consistent with other EPG application. Gil Tam will review.

## Time Error, Frequency Performance, and Control Performance

### 1. Time Error, Frequency and Control Performance

#### a. Western Interconnection Trends and Events

James Murphy reviewed the Western Interconnection frequency and control performance (**Presentation 4**) and John Tolo reviewed the Western Interconnection year-to-date time error reports (**Exhibit E**).

#### b. Eastern Interconnection Trends and Events

Chair Bilke reviewed the Eastern Interconnection frequency and control performance (**Exhibit F**). He also reviewed the Eastern Interconnection time error report (**Presentation 5**).

#### c. ERCOT Interconnection Trends and Events

Sydney Niemeyer reviewed the ERCOT Interconnection frequency and control performance and time error report (**Presentation 6**).

#### d. Hydro Quebec Interconnection Trends and Events

Chair Bilke reviewed the Hydro Quebec Interconnection frequency and control performance and time error report (**Exhibit G**).

### 2. CPS1 and CPS2 Data Trends

In closed session, the subcommittee discussed CPS1 and CPS2 data trends.

### 3. DCS Data Trends

In closed session, the subcommittee discussed DCS data trends.

### 4. 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 developed an Eastern Interconnection on-peak and off-peak inadvertent interchange monthly balances report.

### 5. TEC Field Trial Observations and Statistics

Since the Manual Time Error Correction Field Trial has not yet started, this agenda topic was not discussed.

**Dates and Locations of Future Meetings**

Wednesday, January 25, 2012 (FWG)	8:00 a.m. – noon	Miami Coordinator: Don McInnis
Wednesday, January 25, 2012 (RS)	1:00 p.m. – 5:00 p.m.	
Thursday, January 26, 2012 (RS)	8:00 a.m. – 5:00 p.m.	
Wednesday, April 25, 2012	8:00 a.m. – 5:00 p.m.	San Francisco Alternate: San Antonio Coordinator: WECC RS Members or ERCOT RS Members
Thursday, April 26, 2012	8:00 a.m. – noon	
Wednesday, July 25, 2012	8:00 a.m. – 5:00 p.m.	Montreal, QC Alternate: Portland, OR Coordinator: NPCC RS Members or WECC RS Members
Thursday, July 26, 2012	8:00 a.m. – noon	
Wednesday, October 24, 2012	8:00 a.m. – 5:00 p.m.	Atlanta Coordinator: NERC Staff
Thursday, October 25, 2012	8:00 a.m. – noon	

**Adjourn**

The subcommittee meeting adjourned at 3:05 p.m. PDT on October 27, 2011.

Respectfully submitted,

*Larry Kezele*

Larry Kezele  
Resources Subcommittee Secretary