



Resources Subcommittee Meeting

June 26, 2007

Meeting Minutes

A meeting of the North American Electric Reliability Corporation's (NERC) Resources Subcommittee (RS) was held on June 26, 2007 in Indianapolis, Indiana. The meeting announcement, agenda, and attendance list are attached as **Exhibits A, B, and C**, respectively. Individual statements and minority opinions are affixed as **Exhibits D and E**. There were none.

The RS acknowledges and thanks Chairman Bilke for making the RS meeting arrangements and hosting the meeting in the Midwest ISO facilities. A tour of the Midwest ISO reliability coordinator facilities was given after the meeting adjourned.

Subcommittee Chairman Terry Bilke presided. The secretary announced that a quorum was present.

Antitrust Compliance Guidelines

Secretary Vandervort acknowledged the NERC Antitrust Compliance Guidelines.

Projects

The subcommittee agreed to devote the necessary time between meetings to work on subcommittee- sponsored projects and to schedule monthly conference calls or face-to-face meetings to status the progress, request assistance, and determine any obstacles or road blocks that are impacting the progress of the projects.

The project discussions were led by Consortium for Electric Reliability Technology Solutions projects manager Carlos Martinez. The projects' objectives for the RS and Mr. Martinez are in the agenda.

Intelligent Alarms

The NERC Intelligent Alarms new 2 page version was put into production along with the Resource Adequacy application, release 4.0. Mr. Martinez reviewed the modifications and gave a demonstration of the new Intelligent Alarms, the Help screens for Reliability Coordinators, and the Intelligent Alarms in-depth data bank and analysis capabilities found in the Resource Adequacy application, release 4.0.

Mike Potishnak critiqued the Intelligent Alarms and made recommendations to the RS. Mr. Martinez complimented Mr. Potishnak on his analysis and five recommendations.

Three of the recommendations are being considered and the other two are considered to be related to subject matter and not necessarily to the application.

Action Required: Reliability coordinators, balancing authorities, and transmission operators that are signatories to the NERC confidentiality agreement can subscribe to the Intelligent Alarms by contacting Tom Vandervort at tom.vandervort@nerc.net or Carlos Martinez at martinez@electricpowergroup.org.

Inadvertent Interchange Application, Project 2001-37

This Inadvertent Interchange Application is the NERC replacement for the SPP Inadvertent Interchange tool. The tentative date to discontinue using the SPP Inadvertent Interchange tool is July 30, 2007.

Most of the Western Interconnection balancing authorities have subscribed to the NERC Inadvertent Interchange application registry. Approximately 25% of the Eastern Interconnection balancing authorities have subscribed to the application.

Action Required: NERC is the global administrator for the Inadvertent Interchange application and Tom Vandervort will work with Mr. Martinez to register the Eastern Interconnection Balancing Authorities in an expeditious manner. This is a critical component to the success of the NERC Inadvertent Interchange application. In addition, Mr. Vandervort will correspond with the Eastern Interconnection's balancing authorities and the regional managers to solicit additional participation in the new NERC Inadvertent Interchange application.

AIE Monitoring Application, Project 2000-04

The AIE monitoring application will initially be a balancing authority manual entry collection tool to identify balancing authorities that cause large or long-term frequency deviations, and help reliability coordinators and balancing authorities to assess the situation and recommend alternative actions. The application is ready to be field tested to allow AIE surveys to be electronically completed upon demand in a timely manner. When an AIE survey is requested by the RS Chair, the BAs will submit the specified hourly data into an electronic Web-based data entry form.

Action Required: NERC is the global administrator for the AIE Monitoring application and Tom Vandervort will work with Mr. Martinez to register the Eastern Interconnection Balancing Authorities in an expeditious manner for: 1) temporary AIE Survey registration for the field test; and 2) NERC formal registration for the NERC AIE Monitoring application production version. This is a critical component to the success of the NERC AIE Monitoring application. In addition, Mr. Vandervort will correspond with the Eastern Interconnection's balancing authorities and the regional managers to solicit additional participation in the new NERC AIE Monitoring application.

NERC Frequency Monitoring and Analysis (FMA) Project

Mr. Martinez reviewed the Frequency Monitoring and Analysis specifications and attained consensus from the RS that the preferred design will call for a server to be placed

at NERC for the purpose of storing 10 second frequency data as the back-up frequency data for the primary phasor frequency data. Mr. Vandervort will discuss the proposal with the NERC senior management and Projects Manager to determine funding availability for such a proposal and to discuss the alternatives. The subcommittee expressed a concern to satisfy the OC charge for the RS to monitor each interconnection's frequency it must have the reliability tools in place. The referenced tool for frequency analysis is the NERC Frequency Monitoring and Analysis application, including the proposed NERC 10 second frequency data server.

Action Required: CERTS will continue to develop the NERC Frequency Monitoring and Analysis project including the NERC 10 second frequency data server. Mr. Vandervort will visit with NERC senior management to determine funding and project requirements to proceed with the NERC 10 second frequency data server. A decision needs to be made by NERC to either house the server someplace (within NERC IT or outsource) or drop the server and use only the phasor frequency data (without the NERC 10 second frequency data as a back-up).

Real-Time Resource Adequacy (ACE-Frequency) Application, Project 2000-03

Real-time Resource Adequacy (ACE-Frequency) Application allow NERC Reliability Coordinators to immediately be alerted of electricity reliability threats originated by abnormal resource adequacy giving them time to work with out-of-compliance balancing authorities or other operational organizations to make operational corrections, thereby reducing the chances of unplanned blackouts.

ERCOT has agreed to submit data to be included in the ACE-Frequency application. Brian Nolan, NERC projects manager, will coordinate the necessary infrastructure, hardware, and software modifications to include ERCOT into the ACE-Frequency Monitoring application.

Mr. Martinez reviewed and demonstrated the Resource Adequacy application, release 4.0. The subcommittee was appreciative of all of the analytical and database capabilities that were incorporated into the application's release 4.0.

Action Required: NERC is the global administrator for the NERC Resource Adequacy application and Tom Vandervort will work with Mr. Martinez to register the Eastern Interconnection and Western Interconnection balancing authorities and transmission operators to the Resource Adequacy application. In addition, each RS member needs to familiarize himself/herself with the capabilities of the application. There are a lot of neat statistical analytical features in the new application.

Reliability coordinators, balancing authorities, and transmission operators that are signatories to the NERC confidentiality agreement can subscribe to the Resources Adequacy (ACE-Frequency) application by contacting Tom Vandervort at tom.vandervort@nerc.net or Carlos Martinez at martinez@electricpowergroup.org.

Reliability Research Projects Funded by DOE

This DOE-CERTS supported research is being used by NERC RS to analyze fundamental frequency response issues and basic concerns for a frequency response standard.

Mr. Martinez reported that the research for a frequency response standard has produced the following results:

- Confirmed primary governing Frequency Response has declined on the Eastern Interconnection from 2002 through 2006
- The largest frequency excursions on the Eastern Interconnection are not strongly correlated to disturbances
- Under-frequency load shedding relay limits will be exceeded in about 15 years if current Frequency Response trends continue
- The two adjacent 1-minute average data in the proposed methodology could provide adequate measurement for the calculation of primary governing Frequency Response for the Eastern Interconnection
- The proposed methodology and data for calculating Frequency Response was validated using Eastern Interconnection 2006 generation outage disturbances

Standard BAL-005 Interpretation

The NERC Standards Director requested an interpretation of the BAL-005, frequency response Bias. Mr. Bilke introduced and led a preliminary discussion on the requirements within the NERC reliability standards regarding a balancing authority's calculation of its Bias obligation. Sydney Niemeyer was asked to continue the review and inform the subcommittee of his results.

Dates and Locations of Future Meetings

Wednesday, July 18, 2007 Thursday, July 19, 2007	8 a.m.–5 p.m. 8 a.m.– noon	Calgary
Tuesday, October 23, 2007 Wednesday, October 24, 2007	8 a.m.–5 p.m. 8 a.m.– noon	Portland, OR
Wednesday, January 30, 2008 Thursday, January 31, 2008	8 a.m.–5 p.m. 8 a.m.– noon	Phoenix, AZ Alternate: Miami or Tampa
Wednesday, April 30, 2008 Thursday, May 1, 2008	8 a.m.–5 p.m. 8 a.m.– noon	Washington D.C. Alternate: Miami or Ft. Lauderdale
Wednesday, July 30, 2008 Thursday, July 31, 2008	8 a.m.–5 p.m. 8 a.m.– noon	To Be Determined (location and alternate)
Wednesday, October 29, 2008 Thursday, October 30, 2008	8 a.m.–5 p.m. 8 a.m.– noon	To Be Determined (location and alternate)

Notes:

1. Schedule meetings before the Operating Committee and Planning Committee meetings, whenever possible.

2. Avoid scheduling meetings 30 days before NERC Board of Trustees meetings.
3. Additional meetings, conference calls, or web casts will be scheduled as deemed necessary to address and accomplish subcommittee or task force business.
4. The subcommittee will conduct future meetings only as necessary: 1) to facilitate necessary face-to-face discussions; 2) to focus on deliverables that cannot be achieved by conference calls or web casts; and 3) to initiate consensus building or decision-making forums.

Respectfully submitted,

Tom Vandervort

Thomas J. Vandervort
Resources Subcommittee Secretary