

Minutes Resources Subcommittee

April 29–30, 2009
Public Service Company of New Mexico Office
Albuquerque, New Mexico

A meeting of the North American Electric Reliability Corporation (NERC) Resources Subcommittee (RS) was held on April 28–29, 2009 at the Public Service Company of New Mexico Offices in Albuquerque, New Mexico. The meeting agenda and attendance list are attached as **Exhibits A and B**.

Resources Subcommittee Chair Terry Bilke presided and a quorum was present.

Resources Subcommittee Appreciation for Meeting Host Public Service Company of New Mexico

The RS acknowledges and appreciates the hospitality that Public Service Company of New Mexico and specifically Raylene Royston and Richard Krajewski provided to the subcommittee as it hosted the RS meeting at their facility.

Antitrust Compliance Guidelines

Secretary Vandervort acknowledged the NERC Antitrust Compliance Guidelines.

January 28–29, 2009 RS Meeting Minutes

The subcommittee approved the January 28–29, 2009 RS minutes.

Working Group Reports

Frequency Working Group — Chair Raymond Vice

The Frequency Working Group did not have a report for this meeting.

Inadvertent Interchange Working Group — Chair Don Badley

The Inadvertent Interchange Working Group did not have a report for this meeting.

Operating Reserves Working Group — Chair Larry Akens

The Operating Reserves Working Group did not have a report for this meeting.

Reliability Metrics Working Group

Jessica Bian, NERC Director of Reliability Metrics and Jerry Rust, RMWG – RS liaison, addressed the RS. Highlights include:

- Anyone can recommend a metric at any time to the RMWG.
- Anyone can criticize any metric at any time by submitting comments to the RMWG.
- Reliability Metrics High-level Criteria: 1) Attainable Data; 2) Relevant; 3) Tangible / Timely
- RMWG will strive to eliminate duplication of tools and data collection
- Mr. Rust and Ms. Bian request the RS to submit metrics to the RMWG for consideration.
- RMWG – RS liaisons are Jerry Rust, Don Badley, and Bill Herbsleb.

Reliability Fundamentals Working Group

Jerry Rust, RFWG – RS liaison, addressed the RS. Highlights include:

- The RFWG is proposing to create an OC Technical Reference Library.
- The NERC OC Operating Manual will be retired at some point in the future.
- The Operating Manual documents that are still relevant are proposed to be moved to the Library.
- Each group is asked to review their Operating Manual documents to determine if they are relevant and if so, then to revise them for the Library (to be located within a subject matter or group chapter).
- The RS Operating Manual documents are:
 - Performance Standards Reference Document (PSRD)
 - Area Interchange Error Survey Training Document
 - Frequency Response Training Document
 - Inadvertent Interchange Accounting Training Document
 - Time Monitoring Reference Document
- The RFWG welcomes OC, PC, and other NERC groups or sub-groups to submit technical chapters or concepts. Then the RFWG will request that the OC and PC assign the conceptual suggestions to the OC and PC sub-groups to develop or review for accuracy.
- Prior to being included into the Technical Reference Library, the documents will be vetted by the RFWG, reviewed by the OC or PC, and posted for industry comment.
- Each document will be reviewed on an annual basis for accuracy and to ensure it is technically accurate and up-to-date.

To support the RFWG effort, the RS committed to finishing the Reliability Concepts document “Balancing” Chapter by the July RS meeting.

ACE Diversity Interchange (ADI)

Doug Hils, Duke Energy, had previously presented his request to the NERC OC Chair for a definition of, clarification of, acceptable implementation of, and how to process “ACE Diversity Interchange (ADI).” Mr. Hils’ request to the OC Chair is in the RS meeting agenda.

NERC OC Chair Gayle Mayo directed the RS to evaluate Mr. Hils' ADI request. Chair Mayo request is in the RS meeting agenda.

The RS discussed the intent, purpose, and pros and cons of ADI. RS Chair Bilke requests additional comments (pros and cons to the ADI issue) from the subcommittee in preparation for an ADI response to the NERC OC Chair's request. At the conclusion of the RS meeting, a response was not formalized. RS members are requested to send their comments to Mr. Bilke as soon as possible in order to create a response for the OC meeting in June, 2009.

NERC Reliability Standards

Numerous RS members are on the listed standard drafting teams. These standards began as RS-sponsored standard authorization requests (SARs). Each standard drafting team is developing new or revising existing standard(s), and will post all the documents for industry comment through the NERC Standards Program. The goal for each standard drafting team is to make significant progress towards the next comment posting or standard ballot.

Frequency Response SDT — Chair Bill Herbsleb

The FRSDT is evaluating its SAR and standards drafting team scope. The FRSDT is considering how to incorporate clarification into the standards regarding frequency response versus Bias. The FRSDT is consulting with the Standards Committee to ensure the Bias calculation falls within the FRSDT scope. A change of scope may be required to address additional BAL-003, *Frequency Response and Bias Standard*, "Bias," "Variable Bias," and "Frequency Response-related-to-Bias" work.

Reliability-based Control SDT — Chair Doug Hils

Doug Hils, Reliability-based Control Standard Drafting Team (RBCSDT) chair, gave a status report on the RBCSDT field trials and progress being made on the draft standards. Mr. Hils reported that the RBCSDT field trials have not identified any problems from the participants relating to the implementation of the "Balancing Authorities ACE Limits (BAAL)" since the start of the field trials. The RBCSDT is working with WECC to bring the Western Interconnection balancing authorities into the field trials.

RBC monthly field trial summaries, documents and tools can be found on the RBCSDT Web site, at: http://www.nerc.com/filez/standards/Reliability_Based_Control_FieldTrial_Tools_2007-18-RF.html

Balancing Authority Control SDT (BAL-002, 004, 005, 006 Revisions) — Chair Larry Akens

As a reference the standards under development and their applicable subject matter are:

BAL-002	Disturbance Control Standard (DCS)
BAL-004	Time Error Correction (TEC)
BAL-005	Automatic Generator Control (AGC)
BAL-006	Inadvertent Interchange

Sydney Niemeyer and Raymond Vice reported that the BACSDDT met in Washington, DC in March, 2009. Part of their SDT meeting included a meeting with FERC staff to discuss the parameters, issues, and concerns regarding the scope of the SDT's SAR. The BACSDDT drafted three whitepapers: 1) Reserves; 2) Time Error Correction; and 3) Inadvertent Interchange; to support and clarify the drafting team's position on these

subjects. The BACSDT is developing time error correction field trials for the Eastern, Hydro Quebec, and Western Interconnections.

Performance Standard Reference Document — Chair (Vacant)

John Swez volunteered to review the PSRD for “shall” statements and to revise the document into a draft NERC Operating Manual “guide.”

NAESB Time and Inadvertent Interchange Management Business Practice Standards

RS Chair Bilke reported that the NAESB WEQ T&IIM team is creating a table to identify all FERC Order 693 directives related to time error correction (TEC) and inadvertent interchange that are within the NERC BAL reliability standards and the NAESB WEQ business practice standards. The NAESB WEQ T&IIM team and the NERC Balancing Authority Control SDT will coordinate their efforts.

BAL Standards Reliability Standards Audit Worksheets (BAL RSAWs)

RS Secretary Vandervort reported that the Compliance Program revised and issued the complete set of RSAWs on May 1, 2009. The old set of RSAWs will be used for audit notifications prior to May 1, 2009. The new revised set of RSAWs will be used for audit notifications sent on May 1, 2009 or later. The old and new RSAWs are on the NERC Compliance Web site, at: <http://www.nerc.com/page.php?cid=3|22>

The RS will evaluate the revised BAL standards’ RSAWs for accuracy and relevance. The RS may make recommendations to further improve the RSAWs if deemed necessary.

NERC Active Resources Subcommittee Applications

Consortium for Electric Reliability Technology Solutions (CERTS) project manager Carlos Martinez presented a status of the NERC RS applications.

Resource Adequacy Application

The Resource Adequacy application Release 6.0 has not received any comments since the last RS meeting in January, 2009. The development of a central Web-site for all NERC applications, documentation, and installation processes will begin in May, 2009.

Inadvertent Interchange Application

Bill Herbsleb and Mr. Martinez have been resolving inadvertent interchange mismatches in the Eastern Interconnection.

The Inadvertent Interchange application Release 3.0 will include two WECC Change of Scope enhancements for functional improvements and for computer-to-computer data transfers.

Area Interchange Error Application

The Area Interchange Error (AIE) application Release 1.0 will include a WECC Change of Scope to allow computer-to-computer data transfers that is being incorporated with the Inadvertent Interchange application Change of Scope enhancements. WECC has most of its AIE survey data validated and is testing the computer-to-computer data transfer options.

The Eastern Interconnection AIE Survey data validation is in progress. Balancing authorities currently have mismatched data that needs to be resolved before conclusions and recommendations can be made.

Eastern Interconnection: RS Chair Bilke authorized the balancing authorities in the Eastern Interconnection to enter its AIE survey data into an automated electronic AIE Data Entry Web site for the following hours:

Date	Hour Ending (CDT)	Frequency Error
5/12/2007	0200	+0.030 Hz
5/12/2007	0600	+0.033 Hz
6/17/2007	0600	+0.030 Hz

CERTS is assisting the balancing authorities to address the mismatched data and when necessary to re-enter their survey data.

Western Interconnection: NERC authorized the balancing authorities in the Western Interconnection to submit its AIE survey data to WECC staff which entered the data into the automated electronic AIE Data Entry Web site.

Date	Hour Ending (CDT)	Frequency Error
5/18/2008	0300	-0.0253 Hz
5/18/2008	0400	-0.0236 Hz
6/18/2008	0500	-0.0264 Hz

Intelligent Alarms Application

The Intelligent Alarms application Release 6.0 approved Change of Scope for the new Frequency Response intelligent alarm was presented to the RS.

Frequency Monitoring and Analysis (FMA) Application

The Frequency Monitoring and Analysis (FMA) application Release 1.0 production version was delivered to all RS members on March 12, 2009. The integration of Virginia Tech phasor data is in progress and is anticipated to be ready to roll out during the fourth quarter of 2009.

The Change of Scope involves expanding NERC Alarm Processor software and database to collect and archive online for three years interconnections frequency and BAs ACE 1-minute and /or 10-second data for 5 minutes before and 25-minutes after each frequency excursion equal to or greater than +/- 35 mHz for eastern and western interconnections and +/- 70 mHz for the ERCOT interconnection.

Automated Reliability Report Application

Mahmood Mirheydar, FERC Reliability Engineer and Mr. Martinez, made a presentation to the RS on the Automated Reliability Report (ARR) application which are high level interconnection statistical reports. The presentation is in the RS meeting agenda. The ARR portfolio consists of daily, monthly, seasonal, and annual reports that will be distributed electronically to a subscriber list. Mr. Mirheydar stated that the subscriber list will be opened to FERC, DOE, NERC, and reliability-related technical groups that are signatories to the

NERC Confidentiality Agreement. The ARR application research was funded by DOE, and the application development was funded by FERC. With the NERC Technology Committee approval, the ARR application is anticipated to be maintained and funded under a three year contract by NERC starting January 1, 2010.

Raymond Vice made a motion for the Resources Subcommittee to endorse the Automatic Reliability Report Application including the NERC funding of the ARR application. The motion was approved by the RS.

DOE North American SynchroPhasor Initiative (NASPI)

Chair Bilke reported the following:

- NERC NASPI Leadership will send letters to utilities CEOs requesting they install additional PMUs.
- A PMU Help Page is in development to be located on the NASPI Web site
- There are opportunities in the Stimulus Bill for SynchroPhasor investments
- A RTDMS Users Group has been formed and will meet in Sacramento, CA on June 3–4, 2009

Additional information can be found on the following Web sites:

- <http://www.naspi.org/>
- <http://www.powerit.vt.edu/Fnet.htm>

Pump Coincidence Study

Mr. Potishnak presented his independent Pump Coincidence Study. Due to the sensitive nature of the data, the study will not be disclosed or discussed in these minutes. Anyone that wishes to continue the study or to find out more details regarding the study should contact Mr. Potishnak.

April 6, 2009 Frequency Event

Messrs Bilke, Niemeyer, Rhodes led a discussion on the April 6, 2009 Frequency Event. The Resources Adequacy Intelligent Alarm for this frequency event is in the RS meeting agenda. The highlights of the discussion follow:

- At the time of this event, Eastern Interconnection (EI) scheduled frequency was 60.00 Hz (TEC was not in effect)
- On April 6, 2009, at 07:01 EDT, an EI 650 MW generation unit tripped
- The Reserve Sharing Group was called upon to supply 400 MW contingency reserves
- The Reserve Sharing Group appeared to be slow to respond with the requested contingency reserves. The RS recommends the Reserve Sharing Group perform a detailed evaluation of each BA's performance in the Reserve Sharing Group during this event to determine each BA's level of performance.
- The slow delivery of the contingency reserves delayed the recovery of frequency to schedule.

- Other non-contingent BAs, not within this Reserve Sharing Group also had negative ACE that contributed to the delayed recovery in frequency. This has been typical for the 0600 ramp of off peak to on peak. This event occurred during this ramp window for BAs in the Central Time Zone. Data from the Reliability-based Control standard drafting team supports this, especially the minutes just after the top of the hour.
- At approximately 07:03 frequency fell below the 59.95 Hz Frequency Trigger Limit (FTL-low)
- At approximately 07:06 frequency hit the low point of 59.941 Hz
- At approximately 07:08 frequency rose above the 59.95 Hz FTL-low
- Intelligent Alarm was generated since the Eastern Interconnection was below the 59.95 FTL low set point for five minutes
- The Eastern Interconnection frequency recovered to 60.00 Hz in approximately 13 minutes

Frequency Models

Mr. Vice presented a Frequency Models whitepaper, see the RS meeting agenda. The Reliability-based Control standard drafting team has the lead to complete this whitepaper. The latest version with enhancements from the latest RBCSDT meeting will be shared with the RS with a request for comments.

Time Error Monitoring

The subcommittee reported the following time error monitoring statistics:

Interconnection Time Error Totals – Through March, 2009			
	Fast Time Error Corrections	Slow Time Error Corrections	Total Time Error Corrections
Eastern Interconnection	2	0	2
Western Interconnection	9	11	20
ERCOT	13	0	13
Hydro Québec *	-----	-----	-----

* Hydro Quebec has a frequency based time error monitoring process that does not fit this table.

Performance Monitoring

- **CPS1 Review**
- **CPS2 Review**
- **DCS Review**

The NERC compliance program determines control performance standards CPS1, CPS2, and disturbance control standard (DCS) violations, penalties, and monitors corrective actions. The Resources Subcommittee members are required to sign a NERC Confidentiality Agreement prior to reviewing and discussing the CPS1, CPS2, and DCS reports.

The RS discussed and reviewed the CPS1, CPS2, and DCS report for performance analysis purposes and to identify generic problems, inform subcommittee regional representatives when balancing authorities' scores

are close to violation, and to assess negative trends. Due to the confidential nature of the data, details of the discussion and review cannot be disclosed.

Resources Subcommittee Action Item List

Tom Vandervort reviewed and updated the action item list, which is affixed as **Exhibit C**.

Dates and Locations of Future Meetings

Additional meetings or conference calls may be scheduled as necessary for RS business-related purposes.

Wednesday, July 29, 2009 Thursday, July 30, 2009	8 a.m. – 5 p.m. 8 a.m. – noon	Minneapolis Host: MRO Office * Coordinator: Terry Bilke
Wednesday, October 28, 2009 Thursday, October 28, 2009	8 a.m. – 5 p.m. 8 a.m. – noon	Phoenix, AZ Host: Arizona Pub Service Co. * Coordinator: John Tolo
Wednesday, January 27, 2010 Thursday, January 28, 2010	8 a.m. – 5 p.m. 8 a.m. – noon	Tucson, AZ, Tentative: Host: Tucson Electric Co. * Coordinator: John Tolo
Wednesday, April , 2010 Thursday, April , 2010	8 a.m. – 5 p.m. 8 a.m. – noon	St. Louis, MO Tentative: Host: Ameren Co. * Coordinator: Gerry Beckerle
Wednesday, July , 2010 Thursday, July , 2010	8 a.m. – 5 p.m. 8 a.m. – noon	Birmingham, Pensacola, Gulfport, Tentative: Host: Southern Co Office * Coordinator: Raymond Vice
Wednesday, October, 2010 Thursday, October , 2010	8 a.m. – 5 p.m. 8 a.m. – noon	Valley Forge, PA, Tentative: Host: PJM Office * Coordinator: Bill Herbsleb

* Future RS meetings will be hosted at RS member, Region, utility, or volunteer facilities.

Respectfully submitted,

Tom Vandervort

Thomas J. Vandervort
 Resources Subcommittee Secretary

Agenda Resources Subcommittee

April 29, 2009 | 8 a.m.–5 p.m.
April 30, 2009 | 8 a.m.–noon
Public Service Company of New Mexico Office
414 Silver SW
Albuquerque, New Mexico
Phone: 505–241–2122

RS Conference Bridge (Phone in Participation)
Wednesday, April 29

Telephone Number: 732–694–2061

Access Code: 1123042909#

Thursday, April 30

Telephone Number: 732–694–2061

Access Code: 1123043009#

1. Administrative

- a. Membership and Guests — Terry Bilke
- b. Arrangements — Tom Vandervort
- c. Procedures
 - i. Parliamentary Procedures — Terry Bilke
 - ii. Antitrust Compliance Guidelines — Tom Vandervort
- d. Approval of Meeting Minutes, January 28–29, 2009 — Terry Bilke
- e. Approval of the Meeting Agenda
- f. Resources Subcommittee Action Items List (review prior to the meeting) — Terry Bilke
- g. NERC-RS Confidentiality Agreement — Terry Bilke

2. Working Group Reports

Working Group Meetings, Conference Calls, or Action since the last RS Meeting

- a. Frequency Work Group — Raymond Vice
- b. Inadvertent Interchange Work Group — Don Badley
- c. Operating Reserves Work Group — Larry Akens

3. NERC Operating Committee Directives/Actions — Resources Subcommittee

- a. Reliability Metrics Working Group — Jerry Rust, Jessica Bian

- b. Reliability Fundamentals Working Group — Jerry Rust
 - c. ACE Diversity Interchange – Terry Bilke
 - d. Upcoming OC Meeting — Terry Bilke
 - i. Frequency Bias vs. Natural Frequency Response — Terry Bilke
 - ii. BAAL Field Trial — Where does it Stand — Terry Bilke, Doug Hils
- 4. NERC Reliability Standards**
- a. Frequency Response SDT — Bill Herbsleb
 - b. Reliability-based Control SDT — Doug Hils, Raymond Vice
 - c. Balancing Authority Control SDT — Larry Akens
 - d. Performance Standards Reference Document — John Swez
 - e. NAESB WEQ Time and Inadvertent Management — Terry Bilke
 - f. BAL Standards — Reliability Standards Audit Work Sheets — Tom Vandervort
- 5. Active RS NERC-CERTS Applications**
- a. Resources Adequacy (ACE-Frequency) Application System — Carlos Martinez, Terry Bilke
 - b. Intelligent Alarms — Carlos Martinez, Terry Bilke
 - c. AIE Monitoring Application (Project 2000–4) — Carlos Martinez, Don Badley
 - d. CPS1 & BAAL Monitoring Application (Project 2001–38) — Carlos Martinez, Doug Hils, and Raymond Vice
 - e. Frequency Monitoring and Analysis Application (Project 2005–6) — Carlos Martinez, Raymond Vice, and Terry Bilke
 - f. Inadvertent Interchange Application — Carlos Martinez, Don Badley
 - g. Automated Reliability Reports Application — Carlos Martinez, Mahmood Mirheydar
 - h. DOE North American SynchroPhasor Initiative (NASPI) — Terry Bilke, Carlos Martinez
- 6. Frequency and Control Performance**
- a. Trends and Events
 - i. Western Interconnection Frequency — Don Badley
 - ii. Eastern Interconnection Frequency — Raymond Vice
 - iii. ERCOT Interconnection Frequency — Sydney Neimeyer
 - iv. Hydro Quebec Interconnection Frequency — Mike Potishnak
 - b. CPS1, CPS2, and BAAL Data Trends — Terry Bilke
 - c. DCS Data Trends — Terry Bilke
 - d. Inadvertent Interchange Balances / Mismatches — Don Badley, Bill Herbsleb
 - e. AIE Surveys — Terry Bilke, Don Badley, Raymond Vice, and Carlos Martinez
 - f. Review of Pump Coincidence Study — Mike Potishnak
 - g. Governor Response Time Study — Mike Potishnak
 - h. 2009 Frequency Bias and Estimated Peak Demand — Terry Bilke
 - i. Events Analysis — Request to Analyze Frequency Response, September 18, 2007 — Terry Bilke

- j. Situation Awareness — Request to Analyze Frequency Event, April 6, 2009 — Terry Bilke
- k. Information Item — Frequency Response Webinar — Terry Bilke
- l. Frequency Models — Raymond Vice

7. Time Error

- i. Eastern Interconnection — Bill Herbsleb
- ii. Western Interconnection — John Tolo
- iii. ERCOT Interconnection — Sydney Niemeyer
- iv. Hydro Québec Interconnection — Mike Potishnak

8. Future Meetings

- a. July 29–30, 2009 St. Paul, MN, Midwest Reliability Organization*
- b. October 28–29, 2009 Phoenix, AZ, Arizona Public Service Co. *
- c. January 27–28, 2010 Tucson, AZ, Tucson Electric Power Co. (tentative)*
- d. April 28–29, 2010 St. Louis, MO, Ameren Corp. (tentative)*
- e. July 28–29, 2010 Birmingham, Gulfport, Pensacola, Southern Co. (tentative)*
- f. October 27–28, 2010 Valley Forge, PA, PJM Interconnection (tentative)*

* Future RS meetings need to be held at region, utility, or volunteer facilities

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Attendance List Resources Subcommittee

April 29, 2009 | 8 a.m. – 5 p.m.

April 30, 2009 | 8 a.m. – noon

Albuquerque, NM

Attendance

Name	Participation
Terry Bilke, Chair	Y
Don Badley	Y
Gerald Beckerle	Y
Bill Herbsleb	Y
James Murphy	Y
Sydney Niemeyer	Y
Neil Balu	Y
Mike Potishnak	Y
Robert Rhodes	Y
John Swez	
Jim Eckstein (proxy)	Y
John Tolo	Y
Raymond Vice	Y
Thomas Vandervort	Y
Jerry Rust	Y
William Kunkel	Y
Carlos Martinez	Y
Mahmood Mirheydar	Y
Doug Hils	Y
LeRoy Patterson	Y
Glenn Stephens	Y
Jessica Bian	Y
Steve Crutchfield	Y
Sherrie Brown	via phone
Ronnie Johnson	via phone



**Resources Subcommittee
April 29–30, 2009 Meeting
Open Action Item List**

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
Terry Bilke and Resources Subcommittee	NERC OC RFWG Reliability Concepts Document - Balancing Chapter	<p>053108, NERC Operating Committee Chair, Gayle Mayo asked the RS to write a comprehensive Reliability Concepts Document chapter on load-generation balancing. The chapter must state what must be done to ensure balance.</p> <p>In conjunction with the OC request, Don Benjamin requests the RS to contribute chapters to the OC Reliability Concepts Document – Balance Resources and Demand, Frequency Trends, Frequency Profile, Time Error Correction, ACE, Bias, Inadvertent Interchange, AIE, etc.</p> <p>050109, The following individuals are to draft a technical paper on the following balancing subjects to submit to the Reliability Fundamentals Working Group (RFGW) by June 1.</p> <p>Terry broke out Balancing Chapter into the following sub-sections:</p> <ul style="list-style-type: none"> • Primary Control / Frequency Response – Sydney Neimeyer • Secondary and Tertiary Control and Reserves - Sydney Neimeyer • Time Error Control [blank slate] – Larry Akens • Inadvertent Interchange [blank slate] – Don Badley and Bill Herbsleb • Current Issues (Frequency Excursions) – Terry Bilke • RC Action Recommendations – Terry Bilke • Current Issues (Ramping) – Raymond Vice • Current Issues (Governor Observations & Tips)[blank slate] – Sydney 	060109	

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<ul style="list-style-type: none"> Operating Reserves – Larry Akens Frequency Models – Raymond Vice <p>RS committed to submit the Balancing Chapter to the RFWG on or before June 1, 2009.</p>		
Terry Bilke and Resources Subcommittee	Frequency Event Repository	<p>013108, The RS requests a frequency event repository be initiated. Possibly visit with CERTS, NASPI, VTech, Bill Herbsleb/PJM, Sydney mentioned the August 4 event appendix that may be relevant to this effort, etc., to determine what frequency retention is already taking place.</p> <p>050108, Mike Potishnak has developed an interim “Yugo” frequency repository. Carlos may have the solution to the frequency repository request with the FMA application. The RS needs to understand the FMA capabilities further.</p> <p>102908, Terry and Tom need to visit with NERC IT to determine if a public server / list server can be created to receive industry frequency data for a repository.</p> <p>120208, A NERC RS public folder was created that allows the industry to send questions and data to the RS. balancing@nerc.com</p> <p>012909, RS members that wish to join Terry and Tom on the receiving end should let Tom know and you will be added to the “balancing” list server.</p>	042909	041309
Resources Subcommittee	CPS and DCS data Accuracy Reserve Sharing DCS Lists	<p>102908, RS members check the Reserve Sharing DCS lists to identify any balancing authority in your region that is not in a listed reserve sharing group. Tom to send the list to each RS member that has signed the NERC RS Confidentiality Agreement.</p> <p>012909, Chris Scheetz to cross-check the Compliance Program list of BAs against the list of CPS1 BAs, CPS2 BAs, and DCS BAs or RSGs.</p> <p>041309, TV to check with Craig Lawrence to identify if all RSGs are registered and reporting DCS.</p>	072909	
Resources Subcommittee	NERC OC Operating Manual Docs	<p>073108, RS members on each open BAL-related standard drafting team to request that the SDT write or plan to write a module for each SDT specific requirement and how to achieve technical results for the PSRD.</p> <p>102908, Resources Subcommittee recommended to the OC that the RS documents that are found in the OC Operating Manual be kept in the manual. RS Working Groups and RBCSDT, BACSDT, and FRSDT are to revise the documents for accuracy. RS will then submit the revised documents to the RFWG to update the manual.</p> <p>RS and the SDTs needs to update and revise the reference documents into guidelines and ensure there are no requirements in these documents that should be</p>	072909	

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<p>in standards.</p> <p>012909, John Swez to review the Performance Standard Reference Document for accuracy. Ongoing action item.</p> <p>RS Operating Manual documents are:</p> <p>Performance Standard Reference Document (PSRD) – John Swez</p> <p>Area Interchange Error Survey Training Document – Inadvert Interchange WG</p> <p>Frequency Response Training Document – Frequency WG</p> <p>Inadvertent Interchange Accounting Training Document – Inadvert Interch WG</p> <p>Time Monitoring Reference Document – Inadvertent Interchange WG</p> <p>072909, RS needs to concur with revisions and then forward to the RFWG.</p>		
Resources Subcommittee Working Groups	Reliability Standards Audit Worksheets (RSAWs)	<p>073108, Each RS Working Group is to review the RSAWs that are in their respective area of expertise and recommend enhancements to the NERC Compliance Dept. to improve the RSAW Audits. Assignments are:</p> <ul style="list-style-type: none"> • BAL-001 FRSDT Bill Herbsleb • BAL-002 ORWG Larry Akens • BAL-003 FRSDT Bill Herbsleb • BAL-004 IIWG Don Badley • BAL-005 FWG Raymond Vice • BAL-006 IIWG Don Badley <p>012909, The Ongoing action item.</p> <p>041309, TV to check on Compliance Program effort to revise the RSAWs.</p> <p>041409, Compliance Program is completing the RSAW Update Effort. Close this Action Item as it is duplicative of Compliance effort</p> <p>050109, if the RS chooses to pursue enhancing the BAL RSAWs, then a new action item will be created.</p>	042909	041409
Raymond Vice and Frequency Working Group	European Frequency Research Group to Understand Frequency Patterns	<p>073108, Establish and keep the communications channels open; respond to the questions; and possibly establish a relationship between the RS and the European Research Effort. Questions asked by the European Research Effort Group (reference RS meeting agenda for July 30-31, 2008):</p>	042909	041309

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<ol style="list-style-type: none"> 1. Are there frequency patterns the same in the Eastern Interconnection, especially their correlation to the load gradients? 2. Do you have any results/observations regarding the causes for the power imbalances? 3. Have you already applied any measures against the power imbalances? <p>042909, Is this an action item or should it be addressed elsewhere?</p>		
Don Badley and Inadvertent Interchange Work Group	Inadvertent Interchange Balances	<p>073108, HIGH PRIORITY</p> <p>Coordinated effort is necessary to attain and incorporate the proper 2006 and 2007 carry-forward inadvertent interchange data.</p> <p>Don Badley to work with Bill Herbsleb, Carlos to aggressively bring all BAs up to date and balance their inadvertent interchange values through January 1, 2007 (the line in the sand – balances going forward). RS members and RS Survey Contacts may be called upon to resolve the mismatches and imbalances.</p> <p>102908, Don Badley and Bill Herbsleb are addressing the mismatched balances, in progress. Don and Bill may call upon RS members for assistance to resolve mismatches and balance the Eastern Interconnection inadvertent interchange accounts.</p> <p>072909, Need Update on this action item. Is the II application in production? Can this action item be closed?</p>	072909	
Don Badley and Inadvertent WG	AIE Field Test and initial AIE Survey	<p>101408, RS members to work with their region's BAs to wrap-up the Eastern Interconnection and Western Interconnection AIE Surveys.</p> <ol style="list-style-type: none"> 1. Help Address and resolve mismatches 2. Evaluate the AIE application 3. Make recommendations to improve or make application more user-friendly <p>Eastern Interconnection AIE Survey:</p> <p>5/12/07 HE 0200</p> <p>5/12/07 HE 0600</p> <p>5/17/07 HE 0600</p> <p>Western Interconnection AIE Survey</p>	072909	

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		5/18/08 HE 0300 5/18/08 HE 0400 5/18/08 HE 0500 012909, RS members to contact BAs that still have interchange mismatches and imbalances for the AIE Survey hours specified above. Due Date: ASAP 041309, Don B and John T to determine if the WECC AIE effort is complete.		
	NERC-CERTS Project Review			
Carlos Martinez	Application Web Tutorial and Q&A	073108, CERTS Carlos Martinez to develop a web tutorial and Q&A for the applications, especially the Resources Adequacy application. First priority will be to determine what is needed from NERC to develop the web-based tutorial and Q&A. 102908, Action Item in progress 041309, Carlos to include the tutorial and Q&A into the CoSs. Close this item.	042909	041309
Resources Subcommittee	Who is not submitting data to applications	102908, RS members and CERTS to identify and contact entities that are not submitting data to NERC ICCP to populate NERC Applications (e.g. Resources Adequacy, FMA, etc.) 010909, Request made to identify which BAs are not submitting data to NERC in order to resolve and populate black holes on the Resources Adequacy application. 012909, Need to identify who is not consistently submitting data to NERC. 072909, Terry to generate a report to identify who is not submitting data. The results will determine if this item stays open or closes.	072909	