



# NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

## Resources Subcommittee Meeting

May 1–2, 2002  
Baltimore, Maryland

### Minutes

A regular meeting of the North American Electric Reliability Council, Resources Subcommittee (RS) was held on May 1–2, 2002 in Baltimore, Maryland. The meeting announcement, agenda and attendance list are attached as **Exhibits A, B, and C**, respectively. Individual statements and minority opinions are affixed as **Exhibit D and E**. (There were no comments.)

Resources Subcommittee Chairman Carl Monroe presided. Subcommittee Secretary Tom Vandervort announced that a quorum was present.

#### Minutes of the Previous Meeting

The Subcommittee revised three items in the February 6–8, 2002 Resources Subcommittee meeting minutes to make the detailed descriptive language accurate. The amended minutes were approved.

#### Resources Subcommittee – Interconnected Operations Services Subcommittee Joint Meeting

The Resources Subcommittee (RS) and the Interconnected Operations Services Subcommittee (IOSS) Joint Meeting was held on Wednesday, May 1.

Subcommittee chairmen Carl Monroe and Scott Henry reviewed the scopes of their respective groups.

#### *Policy 10, “Interconnected Operations Services”*

Policy 10 is a reference document to be used by the SAR development teams. The effort performed for the prospective Policy 10 has been summarized in a reference document. It will serve as an input into the SAR development process.

#### *JITF Activities*

The Joint Inadvertent Interchange Task Force (JITF), composed of the RS, Market Interface Practices Subcommittee, Compliance Subcommittee and electrical industry participants, broke down the current NERC definition of Inadvertent Interchange into three “unscheduled energy” components: Frequency, Line Loading, and Energy. The rationale, background, and technical arguments are found in a white paper discussed at the Standing Committees’ March 19–21, 2002 meetings. (See the OC Agenda for a copy of the white paper.)

The IOSS is interested in the status of the Joint Inadvertent Interchange Task Force and its suggested three components of Inadvertent Interchange. RS Chair Monroe stated the JITF has prepared a letter to

## Resources Subcommittee Meeting Minutes May 1–2, 2002

the OC Chairman that addresses the three components of unscheduled energy. The JIITF “recommendations” are as follows:

### *Frequency Component*

The frequency component of unscheduled energy interacts with the “Balancing Resources and Demand” SAR. The JIITF will contribute its White Paper, “Recommendations for the Wholesale Electric Industry of North America: *Inadvertent Interchange*” to the Resources Subcommittee. The Resources Subcommittee can then provide the white paper as a reference document to aid the SAR drafting team and future standard drafting team efforts.

### *Line Loading Component*

The Transmission Loading Component of unscheduled energy interacts with the “Monitor and Assess Short-term Transmission Reliability – Operate Within Limits” SAR. The JIITF believes any congestion management standard developed under this SAR must apply to both scheduled and unscheduled energy into or out of Balancing Authorities.

### *Energy Component*

The settlement of the “energy component” of unscheduled energy is considered a business practice and should be addressed by an organization developing business practice standards.

### *Frequency Response Standard*

The two Subcommittees discussed the Frequency Response Standard (FRS) that the RS included in the proposed version 2 of Policy 1, “Generation Control and Performance.” The discussion focused on whether governors should be required on all generators to meet reliability standards. RS Frequency Task Force Chairman Don McInnis will work with IOSS Chairman Henry and a Planning Committee representative to discuss generator control requirements.

### *ERCOT CPS2 Waiver*

The IOSS has interest in the ERCOT CPS2 waiver since frequency is a core reliability issue.

IOSS member John Adams presented the “ERCOT CPS2 Waiver Status Report” that was presented at the March 19–21, 2002 OC Meeting. ERCOT has hired an independent consultant to perform a comprehensive study of ERCOT’s frequency control and to determine if the CPS metric is correct or needs to be changed. ERCOT is also working with their energy management control system vendor to optimize the control system tuning.

The Resources Subcommittee asked ERCOT to provide additional information by June 14, 2002, regarding the following questions:

1. What is ERCOT’s CPS2 Waiver action schedule to provide resolution (when)?
2. What are ERCOT’s answers to the CPS Waiver (what, how)?
3. What does ERCOT want the RS to do about the waiver (plan of action – short term)?

## **Task Force Reports**

### *Frequency Task Force – Chairman Don McInnis*

#### **Review Control Area Experience with FRS**

A number of Frequency Task Force members reported on their analysis of sample data against the proposed Frequency Response Standard. ~~Overall, the results were favorable with acceptable results. The preliminary results seem to be acceptable.~~

**Dual Unit Trip on April 23, 2002, at 13:50 (Rockport Units)**

The Eastern Interconnection recovered within 10 minutes after this generation loss caused a significant frequency excursion. Frequency Task Force Chairman Don McInnis will ask Chairman Monroe to call a Frequency Response Survey for the event.

**Policy 1, Section C, and Appendix 1C**

Comments on Policy 1, Section C and Appendix 1C, are due May 15, 2002. The RS Frequency Task Force will conduct a conference call on Tuesday, May 28, 2002, at 2:00 pm EDT to discuss the comments and prepare its responses.

**Generator Governor Reference Data**

A Frequency Task Force member raised a concern regarding the retrieval of “governor” manufacture / vendor information, hardware-specific reference data and installation specific reference documentation. Task Force Chairman McInnis led a discussion on the issues and the need for information. The first resource for data is likely to be the governor manufacturer or vendor. A discussion on governor workshops was brought up. If the subcommittee finds a significant number of public comments on generator governors, the Frequency Task Force will consider holding a governor workshop.

*Operating Reserves Task Force – Chairman Mike Potishnak*

**Automated NWPP Reserve Sharing Group**

Don Badley reported NWPP has implemented an automated “Reserve Sharing Group” program in place that is activated when an unanticipated event occurs on May 1. The program was used to successfully recover from a DCS event within the first hour of service.

*Inadvertent Task Force – Chairman Don Badley*

**“Scheduling Agent” and “Inadvertent Payback” Waivers**

Inadvertent Task Force Chairman Don Badley discussed a draft Policy 1, Section F, revision-incorporating language to address the OC-approved “Scheduling Agent” and “Inadvertent Payback” waivers. Chairman Badley will incorporate responses to verbal comments made by the Inadvertent Task Force and will send the proposed draft to the Task Force for their review. Both waivers address Inadvertent Interchange issues.

*Joint Inadvertent Interchange Task Force – Chairman Paul Spicer*

**Future of JIITF**

Chairman Monroe reviewed the draft JIITF letter to the OC Chairman. Within the letter, the JIITF recommends disbanding the JIITF. The Task Force suggests future JIITF Inadvertent Interchange issues be addressed by the Resource Subcommittee’s Inadvertent Task Force. After checking with Inadvertent Task Force Chairman Badley, RS Chairman Monroe agreed to assign these issues to the Inadvertent Task Force if the OC agrees to disband the JIITF.

## **Compliance Issues**

### *CPS and DCS Data*

The Subcommittee reviewed the Control Performance Standards (CPS) and Disturbance Control Standards (DCS) data for the Eastern, Western, and ERCOT Interconnections for January, February and March 2002.

### *Load-Only Control Area*

Duke Energy North America (DENA) has applied for control area status as a load-only control area located in North Little Rock, AR. The SERC Compliance Subcommittee (including RS members Raymond Vice and Gary Rudder) met with DENA technical staff on April 16, 2002. Messrs. Vice and Rudder reported that the meeting was quite successful and that DENA was well prepared.

### *ACE and CPS Calculations in Regions*

RS Chairman Monroe will contact NERC staff to identify the 10 highest and 10 lowest Control Area ACE Scores. Upon review, Chairman Monroe may request these Control Areas provide a month's worth of data and a statement that the Control Area has checked its ACE and CPS calculation to be compliant with NERC Policy 1 or is implementing corrective action to attain compliance.

### *Annex B Proposed Revisions*

RS Chairman Monroe requested the Resources Subcommittee review the proposed Annex B revisions in the Agreement for Regional Compliance and Enforcement Programs and send comments to him.

### *Waiver (i.e. DCS Waiver) Request Procedure*

The Performance Standard Training Document (PSTD), Section D., Survey Procedures, Requirement 4.3.3, Exemptions, states: "A control area or reserve sharing group shall request such exemptions through its Performance Subcommittee (Resources Subcommittee) representative. The Chair of the Performance Subcommittee will rule on the request."

This requirement is no longer applicable because it has been superseded by the Compliance Program requirements. Compliance Subcommittee Members (and RS Members) Gary Rudder and Joe Willson will report to the RS with the correct procedure for regions, control areas, reserve sharing groups, etc., to address waiver requests within the relatively new Compliance Program requirements.

## **Frequency Excursions**

The Subcommittee reviewed recent frequency excursions that occur predominantly at or near the hour ending 2200. The RS will analyze data to determine root causes for the events. The dates and times to be analyzed are:

- March 31, 2002, from 1950 to 2010 CST
- April 8, 2002, from 2150 to 2210 CDT
- April 11, 2002, from 2150 to 2210 CDT
- April 12, 2002, from 2150 to 2210 CDT

## **Determination of Off-Peak Holidays**

The Subcommittee discussed future off-peak holidays. Presently there are 6 off-peak holidays per year.

Raymond Vice moved to revise Appendix 1F, to read as follows:

## Resources Subcommittee Meeting Minutes May 1–2, 2002

There are 6 identified holidays each year (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day). If any of these holidays fall on a Sunday, the following Monday will be considered an off-peak day. Otherwise, the off-peak day will fall on the holiday itself.

Don Badley moved to postpone this motion until the next meeting. The motion was postponed by unanimous consent.

### **NERC CPS Training Overview**

RS Member Terry Bilke is also a member of the Training Resources Working Group (TRWG). He presented to the RS his latest CPS Training Overview draft. At this time, the Overview is considered a reference document. It was well received by the Subcommittee. The Subcommittee offered several constructive comments to enhance the Overview.

### **Dynamic Scheduling vs. Pseudo Ties**

RS Member Alan Oneal led the discussion on using Dynamic Scheduling vs. Pseudo Ties for transferring generation or load from one Control Area to another. The challenge is to define the differences between the two terms. In the past, Dynamic Schedules and Pseudo Ties were treated in a similar manner. Today, we must consider issues such as losses calculation, aggregation on flow and counter flow in congestion situations, tagging, inclusion (or not) into the IDC, and accurate definitions.

RS Member Raymond Vice discussed draft Appendix 1X, "Dynamic Transfer." He will send it to the Subcommittee for comments. The RS will discuss this proposed appendix and what to do with it at the next RS Meeting.

### **NERC Active Resources Subcommittee Projects**

- *Area Control Error (ACE) Project* – Collect and display ACE data from all Control Areas
- *Area Interchange Error (AIE) Project* – Collect AIE information from Control Areas

NERC Projects Director, Bob Cummings reported on the ACE and AIE Projects. Carlos Martinez, a representative from the Consortium for Electricity Reliability Technology Solutions (CERTS), assisted in the presentations. Ongoing testing of both projects identified flaws (i.e. periods of real-time data unavailability, time synchronization problems, missing frequency data, duo-monitor display problems, etc.). These flaws have been or are in the process of being fixed.

- *Inadvertent Checkout Web Site* – Create an Inadvertent Checkout site based on SPP's System

Bob Cummings reported that NERC is willing to administer the SPP Inadvertent Program. However, it is a matter of allocating NERC personnel to accomplish the project. NERC has the funding in place.

- *CPS1 and CPS2 Displays* – Create real-time displays of CPS1 and CPS2 for use by Control Areas and Security Coordinators.

Bob Cummings reported that recalculating CPS1 and CPS2 will not be seriously pursued until the data quality is satisfactory and the periodicity is standardized.

Resources Subcommittee Meeting Minutes  
May 1–2, 2002

He will provide the Subcommittee with a status report at the next RS Meeting.

**Dates and Locations of Future Meetings**

July 31 (8 a.m.)–August 2 (noon), 2002  
Halifax, NS

October 16 (8 a.m.)–October 18 (noon), 2002  
Santa Fe, NM\*

\* Santa Fe, NM is the tentative (primary) location  
San Antonio, TX is the alternate (back-up) location

Respectfully submitted,

Tom Vandervort

Tom Vandervort  
Resources Subcommittee Secretary

**Barbara Bogenrief**

---

**From:** Mary Joann Hartsfield  
**Sent:** Friday, March 15, 2002 10:39 AM  
**To:** Resources Subcommittee  
**Subject:** Resources Subcommittee Meeting Information - May 1-3, 2002

To: Resources Subcommittee

PLEASE REPLY TO THIS E-MAIL IF YOU PLAN TO ATTEND THIS MEETING!

Dear RS Members:

The arrangements for the May 1-3, 2002 RS meeting follow:

Location:

Radisson Plaza Hotel Baltimore Inner Harbor  
20 West Baltimore Street  
Baltimore, Maryland 21201  
phone: 410-539-8400  
fax: 410-332-1229  
Reservations: 1-888-466-4644  
www.radisson.com

Meeting Schedule:

Wednesday, May 1, 2002: 8 a.m. to 5 p.m.  
Thursday, May 2, 2002: 8 a.m. to 5 p.m.  
Friday, May 3, 2002: 8 a.m. to noon

Sleeping rooms are being held for this event the nights of April 30 - May 2, 2002 at the rate of \$169 single/double, and \$189 triple/quad. The cut-off for sleeping rooms is Friday, March 29, 2002. Check-in time is 3 p.m., check-out is noon. Please call the hotel to make your reservation and mention NERC/North American Electric Reliability Council to receive the negotiated rate.

The Radisson is located about 20 minutes from BWI Airport. The Super Shuttle is available outside of baggage claim for \$11.50 per person. Taxis will cost about \$15-20.

When making your hotel reservations, please make sure to mention "North American Electric Reliability Council/NERC Meeting" so your reservation is credited to our room block. A penalty may be charged to NERC if the total rooms blocked for this event are not picked up. Please inform us immediately if you are unable to attend. Also, if you are using an agency for your travel plans, make sure they mention NERC.

Remember dress is business casual.

Sincerely,

Mary J. Hartsfield

Mary J. Hartsfield

Secretary, Operations Department

North American Electric Reliability Council

Princeton Forrestal Village

116-390 Village Boulevard, Princeton, NJ 08540

(609) 452-8060 x125, fax (609) 452-9550

email: Mary.Hartsfield@NERC.net <mailto:Mary.Hartsfield@NERC.net>



# NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

## Resources Subcommittee

Wednesday, May 1, 2002 — 8 a.m. – 5 p.m.

Thursday, May 2, 2002 — 8 a.m. – 5p.m.

Friday, May 3, 2002 — 8 a.m. – Noon

Radisson Baltimore Inner Harbor  
Baltimore, Maryland

## Agenda

### 1. Administrative

- a. Membership and Guests – Chair
- b. Introductions (Discussion: New Member Assignments) – Chair
- c. Organization, Roster, and Survey Contacts List – Secretary
- d. Arrangements – Secretary
- e. Approval of minutes of February 6 – 8, 2002 Meeting – Chair
- f. Approval of Agenda – Chair
- g. Parliamentary Procedures – Chair
- h. Resources Subcommittee Scope – Chair
- i. Process for Revising Existing NERC Operating Policies and Planning Standards

### 2. Resources Subcommittee (RS) – Interconnected Operations Services Subcommittee (IOSS) Joint Meeting

- a. General Overview of IOS and IOS Metrics
- b. General Overview of JIITF
- c. Discuss RS and IOSS Overlapping Interests and Opportunities

### 3. Task Force Reports

- a. Reserves Task Force – Mike Potishnak
- b. Frequency Task Force – Don McInnis
- c. Inadvertent Task Force – Don Badley
- d. Joint Inadvertent Interchange Task Force – Paul Spicer
- e. Automatic Generation Control Task Force – Raymond Vice

### 4. Compliance

- a. Control Performance Standard
- b. Disturbance Control Standard
- c. Compliance Subcommittee Liaison – Gary Rudder
- d. Load Only Control Area – Raymond Vice, Gary Rudder, Joe Wilson
- e. ACE Data Collection – Joe Emde
- f. Results of Letter to Review ACE and CPS Calculations in Regions

Resources Subcommittee Meeting Agenda  
May 1–3, 2002

**5. Policy 1, “Generation Control and Performance” – Carl Monroe**

- a. Policy 1, Sections A, B, D, E, F, and G, Post for Ballot
- b. Policy 1, and Appendix 1C, Post for Comment
- c. Policy 1 Revision reflecting OC Approved Waivers
  - i. Waiver - RTO Scheduling Agent
  - ii. Waiver - Financial Inadvertent Settlement
  - iii. Waiver - ERCOT Request for CPS2 Exemption
- d. Waiver (i.e. DCS Waiver) Request Procedure – Joe Wilson / Gary Rudder
- e. Standards Transition Process
- f. Appendix 1D, Time Error Correction

**6. NERC Active Resources Subcommittee Projects – Status – Bob Cummings**

- a. Area Control Error (ACE) Project (Project 2000-03)
- b. Area Interchange Error (AIE) Project (Project 2000-4)
- c. Inadvertent Checkout Website (Project 2001-37)
- d. CPS1 & CPS2 Displays (Project 2001-38)

**7. Frequency Performance**

- a. Western Interconnection Frequency Trends
- b. Eastern Interconnection Frequency Trends
- c. ERCOT Frequency Trends
- d. Hourly CPS Data Collection

**8. Time Error**

- a. Eastern Interconnection – Doug Hils
- b. Western Interconnection – Don Badley
- c. ERCOT Interconnection – Wayne Kemper

**9. Roundtable Discussion**

**10. Future Meetings**

- a. July 31, August 1 – 2, 2002, Halifax, Nova Scotia
- b. October 16 – 18, 2002, Santa Fe, New Mexico

# Exhibit C

**Resources Subcommittee Meeting**  
**May 1–2, 2002**  
**Baltimore, Maryland**

---

<b>Name</b>	<b>E-mail</b>	<b>Affiliation</b>
Wayne Kemper	<a href="mailto:wayne-kemper@reliantenergy.com">wayne-kemper@reliantenergy.com</a>	Reliant Energy HLP
Don McInnis	<a href="mailto:don_mcinnis@fpl.com">don_mcinnis@fpl.com</a>	FP&L
Raymond Vice	<a href="mailto:rlvice@southernco.com">rlvice@southernco.com</a>	Southern Co. / SERC
Tom Vandervort	<a href="mailto:tom.vandervort@nerc.com">tom.vandervort@nerc.com</a>	NERC
Carl Monroe	<a href="mailto:cmonroe@spp.org">cmonroe@spp.org</a>	SPP
Terry Bilke	<a href="mailto:tbilke@midwestiso.org">tbilke@midwestiso.org</a>	RTO
Alan Oneal	<a href="mailto:aroneal@midamerican.com">aroneal@midamerican.com</a>	MEC / MAPP
Mike Potishnak	<a href="mailto:mpotishnak@iso-ne.com">mpotishnak@iso-ne.com</a>	ISO-NE / NPCC
Gary Rudder	<a href="mailto:gwrudder@tva.gov">gwrudder@tva.gov</a>	TVA / SERC
Bob Kissner	<a href="mailto:jkissner@allegHENYpower.com">jkissner@allegHENYpower.com</a>	Allegheny Power
John Adams	<a href="mailto:jadams@ercot.com">jadams@ercot.com</a>	ERCOT
Don Badley	<a href="mailto:don@nwpp.org">don@nwpp.org</a>	WECC (NWPP)
Carlos Martinez	<a href="mailto:martinez@electricpowergroup.com">martinez@electricpowergroup.com</a>	CERTS
Scott Henry	<a href="mailto:rshenry@duke-energy.com">rshenry@duke-energy.com</a>	Duke Power
Rudy Tolentino	<a href="mailto:rtolentino@duke-energy.com">rtolentino@duke-energy.com</a>	Duke Energy
Joseph D. Willson	<a href="mailto:willsojd@pjm.com">willsojd@pjm.com</a>	PJM – MAAC
Bob Cummings	<a href="mailto:bob.cummings@nerc.com">bob.cummings@nerc.com</a>	NERC
Larry Kezele	<a href="mailto:larry.kezele@nerc.com">larry.kezele@nerc.com</a>	NERC

# Exhibit D

**Individual Statements  
Resources Subcommittee Meeting  
May 1 - 2, 2002**

---

*None*

# Exhibit E

**Minority Opinions  
Resources Subcommittee Meeting  
May 1 - 2, 2002**

---

**No minority opinions were offered for the record.**