

## **Interchange Subcommittee**

November 14–15, 2007

San Francisco, California

### **Meeting Minutes**

A regular meeting of the North American Electric Reliability Corporation's (NERC) Interchange Subcommittee (IS) was held on November 14–15, 2007 in San Francisco, California. 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.

Subcommittee Chair Don Lacen presided. The secretary announced that a quorum was present.

#### **Antitrust Compliance Guidelines**

Secretary Vandervort acknowledged the NERC Antitrust Compliance Guidelines.

#### **Minutes of the Previous Meeting**

The subcommittee approved the September 19–20, 2007 meeting minutes.

#### **Joint Interchange Scheduling Working Group**

Jim Hansen, Joint Interchange Scheduling Working Group (JISWG) Co-Chair, led a discussion of the current e-Tag Version 1.8 development, testing, and implementation plan.

#### **e-Tag Version 1.8, Termination Time Definition**

The JISWG made a relatively minor revision to the e-Tag Version 1.8 regarding "Termination" times, including a "Termination Time" state definition.

#### **e-Tag Version 1.8 Vendor Interoperability Test**

Four e-Tag Version 1.8 vendors, MCG, OATI, SoftSmiths, Sungard participated in Vendor Interoperability Tests on November 9, 2007. The test script had numerous scenarios. The vendors performed the tests successfully. The JISWG will conduct another Vendor Interoperability Test with a modified test script on November 26, 2007. Depending on the results of this test, additional minor testing may be scheduled during the week of November 26, 2007.

#### **e-Tag Version 1.8 Vendor Status**

The JISWG has received positive confirmation from e-Tag Version 1.8 vendors MCG, OATI, SoftSmith, and Sungard that they are ready to implement e-Tag Version 1.8 on December 4,

2007. The JISWG has not heard from any e-Tag Version 1.8 vendors that they are not ready for implementation.

**e-Tag Version 1.8 Implementation — Possible Delay**

The electric power industry was asked to identify any issues by November 14, 2007 that would cause the delay of the implementation of e-Tag version 1.8. The Ontario Independent Electricity System Operator (IESO) responded that due to ongoing energy management system and market interface upgrades they will not be prepared to implement e-Tag version 1.8 on December 4, 2007. IESO’s e-Tag Version 1.8 vendor is working with their technical staff to implement solutions and will be able to determine by November 16, 2007, if IESO will be able to implement e-Tag Version 1.8 on December 4, 2007.

As a result of this potential delay, the JISWG selected an optional implementation date of March 4, 2008, if IESO will not be able to solve their problems. The JISWG will coordinate with NERC, NAESB and the e-Tag vendors, to send either a December 4, 2007 implementation letter or a delay letter (to implement on March 4, 2007) to the electric power industry.

**Interchange Authority Registration**

The Interchange Authority registration is being driven by the NERC reliability standards requirements and the NERC Glossary of Terms for Interchange Authorities (IA), which include:

<b>NERC Functional Definition from the NERC Standards Glossary</b>	<b>Interchange Authority (IA):</b> The responsible entity that authorizes implementation of valid and balanced Interchange Schedules between Balancing Authority Areas, and ensures communication of Interchange information for reliability assessment purposes.
<b>INT-005, R1, R1.</b>	<b>R1:</b> Prior to the expiration of the time period defined in the Timing Table, Column A, the <b>Interchange Authority</b> shall distribute the Arranged Interchange information for reliability assessment to all reliability entities involved in the Interchange.
<b>INT-005, R1, R1.1.</b>	<b>R1.1.:</b> When a Balancing Authority or Reliability Coordinator initiates a Curtailment to Confirmed or Implemented Interchange for reliability, the <b>Interchange Authority</b> shall distribute the Arranged Interchange information for reliability assessment only to the Source Balancing Authority and the Sink Balancing Authority.

NERC filed the Interchange Authority registration criteria with FERC on November 12, 2007 and expects to receive a response within two weeks. With a positive response from FERC, NERC will send a letter to the regions authorizing them to start registering entities as Interchange Authorities. It will be up to the regions to determine who is considered to be the IAs.

The IS looks forward to reviewing the Interchange Authority registration criteria and to observe how the regions will register entities in their physical boundaries.

## **NERC Standards**

The Interchange Subcommittee will devote the necessary time between meetings to work on subcommittee-sponsored SARs and will schedule conference calls or face-to-face meetings for constructive SAR-development, to request assistance, to determine any obstacles or road blocks that are impacting the progress of the SARs, and to strategize action plans.

### **NERC “INT” Standards Review**

The Interchange Subcommittee, as custodians of the NERC Interchange “INT” standards, reviewed the Interchange “INT” standards, the FERC Order 693, the NERC 3 Year Standards Work Plan, to determine if there is significant ambiguity or if the FERC directive is significant to merit a SAR to revise any of the INT standards. By unanimous consent, the IS decided to defer any action to address NERC INT standards, including the FERC directives on the INT-001 and INT-006 standards, to the NERC Standards 3 Year Plan.

IS Chair Don Lacen recommends each IS member review the INT standards for functional applicability, accuracy of the purpose, applicability, requirements, and measures.

### **Timing Tables Standards Drafting Team**

Jim Hansen reported that a Timing Tables standard drafting team has been formed. The standard drafting team will have its initial meeting in December, 2007 or January, 2008.

### **Eastern Interconnection Interchange Tool Discussion**

The IS discussed the advantages of creating an Eastern Interconnection Interchange tool similar to the Western Interconnection’s WECC Interchange Tool (WIT). The IS proceeded to discuss the Western Interconnection Tool (WIT), the SERC Scheduling Checkout System (SCS), the FTC system used in the Eastern Interconnection Northeast regions, the Interchange Authority Function Task Force white paper on interconnection interchange checkout.

All aspects need to be analyzed including funding, central control, where such a tool will be hosted, who will contractually manage the interchange tool, is there interest in such a tool in the Eastern Interconnection, etc. If there is substantial interest in an Eastern Interconnection Interchange Tool, then the IS will share its conclusions and recommendations with NERC, the Eastern Interconnection Region Managers.

The IS formed an Eastern Interconnection Interchange Tool Task Force (EIITTF) to consider the advantages found in having a single Eastern Interconnection electronic interchange tool such as the Western Interconnection’s WIT. The EIITTF is made up of Jeremy West, Task Force Chair, Larry Goins, Shane Jensen, Pat Doran, Jim Hansen, and Tom Vandervort.

### **IS Scope**

The IS began revising its Scope during the September, 2007 meeting and completed the revision during this meeting. The IS approved the following Scope:

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### **SCOPE**

## **INTERCHANGE SUBCOMMITTEE**

### **Objective**

To promote the reliable and efficient interchange of energy between Balancing Authorities in all NERC Regions and Interconnections.

### **Scope**

The Interchange Subcommittee (IS) accomplishes this objective by:

- Reviewing standards and processes relating to interchange transactions and assist in the development of new standards. Develop any necessary reference documents.
- Developing and maintain programs and facilities associated with interchange transactions. This includes the development of business plans, including costs, and schedules for system projects and training.
- Developing training materials relating to interchange and coordinate with the Personnel Subcommittee as required.
- Providing oversight and guidance to Working Groups and Task Forces.
- Providing industry leadership and guidance on matters relating to interchange transactions.

### **Reliability Standard Expertise**

The IS is comprised of members with industry experience and knowledge relating to the NERC "INT" Interchange Reliability Standards and other applicable standards.

### **Reporting**

The IS reports to the NERC Operating Committee (OC) and shall maintain communications with the Planning Committee, and other groups as necessary on relevant issues.

### **Membership**

#### **General Requirements**

IS membership requirements are focused on *expertise* and allow the subcommittee the flexibility it needs to ensure it has this expertise.

#### **Expertise**

The IS must have sufficient expertise within its ranks to fully understand the INT and other applicable standards.

#### **Commitment and participation**

IS members must be *committed* to their service on the subcommittee. This means preparing for and actively *participating* in all subcommittee meetings in person or on conference calls. It also means writing and reviewing draft reports, serving on SAR and standards drafting teams if selected, and bringing issues to their Regional Councils, trade organizations, and utilities for further discussion and insight.

#### **Replacing members**

The subcommittee may request a replacement for its member that misses three consecutive meetings without sending a proxy.

#### **Required membership**

NERC OC Standing Committee require each subcommittee to include, as a minimum, the following voting representation:

#### **Voting Members — Required**

1. **Regional representatives.** Each regional reliability council will provide at least one member. The regions will select their representatives based on their expertise in the IS's subject matter.
2. **Interconnections and countries.** If the set of regional representatives does not provide for at least one representative from each Interconnection and two representatives from the U.S. and Canada, the subcommittee chairman, working with the NERC staff, will ask for *additional members* from the regional reliability councils or trade organizations as necessary to fulfill these requirements.

#### **Voting Members — Additional**

**3. Additional invited members.** The IS will request additional members as needed for their particular expertise. The subcommittee officers will seek recommendations from trade organizations, regional councils, and individual organizations.

**Non-voting members — Guests and observers**

IS meetings are open to others who wish to attend as a guest of the subcommittee. The chairman will provide guests and observers the opportunity to contribute to the subcommittee's discussions, provided the subcommittee's voting members have sufficient time to:

1. Complete the debate of their motions, and
2. Complete the meeting agenda.

**Officers**

The NERC OC chairman appoints the IS officers (the chair and vice chair) for a specific term (generally two years). The subcommittee officers may be reappointed for additional terms. The IS officers are considered members of the subcommittee and may vote.

**Meeting Procedures**

**General**

The IS follows the meeting procedures explained in the following two documents:

1. The latest edition of the Organization and Procedures Manual for NERC Standing Committees, and
2. *Robert's Rules of Order, Newly Revised.*

**Quorum**

A quorum for conducting business is 50 percent of the IS members listed on the current subcommittee roster. If a quorum is not present, then the subcommittee may not take any actions requiring a vote of the subcommittee. However, the chair may, with the consent of the members present, allow discussion of agenda items.

**Minority Opinions and Personal Comments**

The minutes of every IS meeting will include exhibits for minority opinions and personal comments. The chair shall communicate both the majority and any minority views when presenting subcommittee discussion results with the OC.

**Subgroups**

The IS may, from time to time, form task forces and working groups as necessary, without OC approval. The subcommittee must review the progress of its subgroups at least annually and decide to either continue or disband these groups as needed.

Typically task forces are usually ad-hoc and are not expected to exist after completing their assignments. Conversely, working groups may be on-going.

Task force and working group chairs (or delegates) are expected to attend the regular subcommittee meetings to report on assignments.

**Joint Interchange Scheduling Working Group (JISWG)**

Interchange transactions span both the commercial and reliability aspects of the wholesale electric industry. As such, this working group was formed to address those issues that span the scope of both the NAESB Wholesale Electric Quadrant (WEQ) Information Technology Subcommittee (ITS) and Electronic Scheduling Subcommittee (ESS) and the NERC Interchange Subcommittee (IS).

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## ***Dynamic Schedule Information in the IDC***

The IS Action Items List contain a number of action items associated with the Dynamic Schedules. During the May 2–3, 2007 IS-ORS Joint Meeting, the ORS requested the Interchange Distribution Calculator Working Group (IDCWG) evaluate the possible inclusion of dynamic schedules into the IDC.

Cheryl Mendrala (proxy for John Simonelli) reported that the IDCWG sent a letter to the ORS (Cheryl is a member of the IDCWG), see the letter immediately below. Ms. Mendrala stated that the IDCWG considered the concept to be feasible but the IDCWG does not see value in the incorporating dynamic schedule information into the IDC. The IDCWG will not take further action on this issue unless there is an additional issue or concern related to the dynamic schedules in the IDC that need to be brought up or that the IS can identify. The IS accepted the IDCWG explanation and at this time and will not pursue the possible inclusion of dynamic schedule information into the IDC.

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## **IDCWG Review of Real Time Dynamic Schedule Data Submission to the Interchange Distribution Calculator (IDC)**

### **Background**

Dynamic schedules are a special case of energy transfer which seek to follow a given load on a moment-to-moment basis. These schedules are generally arranged between a Balancing Authority (BA / host BA) and a unique load electrically located outside of the BA's normal service territory. They are implemented such that the unique load appears to be electrically located within the BA's service territory. The dynamic schedule is different from a regular e-Tag transaction in that the dynamic schedule is normally "hard wired" into the host BA's energy management system (EMS), as opposed to having its e-Tag read and subsequent scheduling implemented. Aggregated metering points associated with the unique load typically feed their collective signal directly to the host BA's EMS for processing in the EMS' next dispatch cycle.

### **Dynamic Schedules in the IDC**

The IDC processes all e-Tags utilized in the Eastern Interconnection. This includes e-Tags associated with dynamic schedules. All e-Tags, whether they are normally scheduled transactions or dynamic schedules, are handled the same within the IDC with the exception of the Hold procedure within the Reallocation procedure. The exception for dynamic schedules is processed within the IDC as prescribed in NERC Reliability Standard IRO-006-3, Section 1.6.6 — Reallocation, as follows:

*“... Note Reallocations for Dynamic Schedules are as follows: If an Interchange Transaction is identified as a Dynamic Schedule and the transmission service is considered firm according to the constrained path method, then it will not be held by the IDC during TLR level 4 or lower. Adjustments to Dynamic Schedules in accordance with INT-004 R5 will not be held under TLR level 4 or lower.”*

Outside of the IDC, adjustments made to a dynamic schedule by the Purchasing Selling Entity (PSE) are performed in accordance with NERC Reliability Standard INT-004-1, Requirement 2.

While normally tagged transactions can be curtailed and re-loaded by way of the BA's scheduling function, the curtailment/re-load of a dynamic schedule is more of a manual process to be performed by the relative BA's.

**ORS Request for Review by the IDC Working Group (IDCWG)**

In its May 2-3, 2007 meeting, the Interchange Subcommittee (IS) requested the Operating Reliability Subcommittee (ORS) to investigate the use of "live" dynamic data submissions to the IDC by use of the Inter-control Center Communication Protocol (ICCP). The ORS then requested the IDC Working Group (IDCWG) to review and report its findings at the next ORS meeting.

**IDCWG Review**

The IDCWG has reviewed the issue of directly submitting "live" dynamic schedule data to the IDC. The vendor has indicated that direct entry of "live" (real-time) dynamic schedule data to the IDC via ICCP, or another data vehicle, is technically feasible, although that implementation would not be a trivial effort. We would like to provide some examples of how this change would impact the IDC and demonstrate why we do not believe that this suggestion will result in an improvement to reliability.

The IDC is not a real-time tool; it is a "near real-time" tool. It essentially utilizes a slice of time to evaluate transmission loading relief and prescribe its subsequent curtailments and re-loads. The IDC's evaluation of transmission loading relief is performed for next hour in the case of TLR levels 3A, 4 and 5A, and for current and next hour in the case of TLR levels 3B and 5B.

The table below shows what data is used today for the dynamic schedules and the various means by which the ICCP data could be incorporated into the TLR process. Under no condition would the ICCP data be used to update the actual e-Tag for the dynamic schedule. The Purchasing Selling Entity has the responsibility to update the e-Tag for the next-hour to reflect the expected flow, and the use of ICCP data within the IDC for TLR processing would not negate that responsibility.

TLR Processing	Current Schedule	Next Hour Schedule
Today	Submitted e-Tag	Submitted e-Tag
Option 1	Submitted e-Tag	Current ICCP value
Option 2	Current ICCP value	Current ICCP value
Option 3	Current ICCP value	Submitted e-Tag

With respect to Options 1 and 2, the IDCWG believes the current approach of using the estimated schedule on the e-Tag for both the current and next hour schedule in

the TLR process is more reliable than these variations. The e-Tag should always be considered the most accurate information for the next hour.

However, we recognize that Option 3 could provide additional and more accurate information in some instances. However, the ICCP value will be changing throughout the hour, and the data point taken for a dynamic schedule at the time a TLR is issued would be no more or less accurate than the estimate projected on the e-Tag prior to the start of the hour.

### **Conclusion**

While the use of the ICCP data point as the 'current' schedule can have a small impact the TLR results, the accuracy of the estimated flow on the dynamic schedule can have more of an impact on the TLR processing than the use of ICCP data. If the in-hour ICCP data for dynamic schedules shows significant variation from the PSE estimated flow, the process for establishing that estimate should be reviewed to determine if a more accurate estimation can be provided. Encouraging the PSE to enter the e-Tag in smaller increments to more accurately reflect conditions when the change in expected flow is significant over an hour would produce more accurate results than using the ICCP data without any changes required to the IDC.

The IDCWG has also reviewed the dynamic schedules that have been part of the TLR processing and concluded that the total amount of MWs involved in dynamic schedules is typically a small percentage of the overall set of eTags involved in flowgates on which TLRs have been issued. Subsequently, the IDCWG believes that, at this time, the use of ICCP data will not have a noticeable impact on the output of the IDC application and would not result in any improvement to reliability.

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### **Electronic Tag Registry**

NERC will transfer the Electronic Tagging Registry to NAESB by autumn, 2008. To support transition of the Electronic Tagging Registry from NERC to NAESB a request for proposals (RFP) will be developed and issued by NAESB for outside entities to recommend how to effectively and efficiently implement such a tool for NAESB. The JISWG will perform a technical review and revise the electric industry Electronic Tagging Registry Requirements Document. JISWG Co-Chairs Bob Harshbarger and Jim Hansen will coordinate the JISWG technical review of the requirements in accordance with the NAESB timeline.

### **Interchange Subcommittee Action Item List**

Each subcommittee member is to review, take action for their items, and update the action item list, which is affixed as **Exhibit F**.

### **Dates and Locations of Future Meetings**

1. February 12–13, 2008                      San Diego, CA \*

- |                          |                  |
|--------------------------|------------------|
| 2. May 7–8, 2008         | Charleston, SC * |
| 3. September 17–18, 2008 | Vancouver, BC *  |
| 4. November 19–20, 2008  | Austin, TX *     |

\* Dates and Locations are to be coordinated with the Operating Reliability Subcommittee's 2008 meeting schedule.

Respectfully submitted,

*Tom Vandervort*

Thomas J. Vandervort  
Interchange Subcommittee Secretary

**TO: INTERCHANGE SUBCOMMITTEE**

Ladies and Gentlemen:

I have listed the Interchange Subcommittee November 14–15, 2007 meeting logistics and registration link in the table below.

**EVERYONE must register online by clicking below or at the following Web site: <http://www.nerc.net/meetings/>**

**Meeting Group and Dates**

Group Acronym	IS
Dates	11/14/2007 8:00:00 AM 5:00:00 PM 11/15/2007 8:00:00 AM 12:00:00 PM

**Cut Off Date | 10/23/2007**

**Hotel**

Hotel	Doubletree Hotel San Francisco Airport
Address	835 Airport Blvd.
City	San Francisco
State	CA
Phone	650-344-5500



NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

**Interchange Subcommittee Meeting**  
Wednesday, November 14, 2007 — 8 a.m.–5 p.m.  
Thursday, November 15, 2007 — 8 a.m.–noon

Doubletree Hotel San Francisco Airport  
835 Airport Blvd.  
San Francisco, California  
Phone: (650) 344-5500

## Agenda

- 1. Administrative**
  - a. Membership and guests — Chair
  - b. Arrangements — Secretary
  - c. Approval of meeting minutes:
    - i) September 19–20, 2007, IS Meeting Minutes — Chair
  - d. Approval of IS Meeting Agenda — Chair
  - e. Procedures
    - i) Parliamentary Procedures — Chair
    - ii) Antitrust Compliance Guidelines — Chair
  - f. Interchange Subcommittee Action Items List (Review prior to the meeting) — Chair
- 2. Interchange Subcommittee Scope — Chair**
- 3. Joint Interchange Scheduling Working Group**

Working group meetings, conference calls, or action since the last IS Meeting

  - a. e-Tag 1.8 — Jim Hansen, Bob Harshbarger
- 4. Interchange Authority Registration — Chair**
- 5. NERC Reliability Standards**
  - a. NERC Interchange “INT” Standards — Chair
  - b. Timing Tables Standard Drafting Team — Bob Harshbarger
- 6. Eastern Interconnection Interchange Tool — Tom Vandervort**
- 7. 2008 Interchange Subcommittee Goals — Chair**
- 8. Dynamic Schedule Information in the IDC — Chair**
- 9. Future Meetings**
  - a. February 12–13, 2008                      San Diego, CA
  - b. May 7–8, 2008                                Charleston, SC
  - c. September 17–18, 2008                    Vancouver, BC
  - d. November 19–20, 2008                    Austin, TX

***Item 1.a*      **Membership and Guests — Chair****

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Chair Don Lacen will welcome the IS members and guests. The chair will ask members and guests to introduce themselves.

Each member is asked to check and review the current IS roster for accuracy.

Attachments

1. IS Organization Roster

***Item 1.b*      **Arrangements — Secretary****

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The IS Meeting will begin on Wednesday, November 14 at 8 a.m. and adjourn by noon on Thursday, November 15, 2007. Lunch will be served on Wednesday.

***Item 1.c*      **Approval of September 19–20, 2007 IS Meeting Minutes — Chair****

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The chair will ask for approval of the IS September 19–20, 2007 Meeting Minutes.

Attachment

September 19–20, 2007 IS Meeting Minutes

***Item 1.d*      **Approval of IS Meeting Agenda — Chair****

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The chair will ask for approval of the IS Meeting Agenda.

***Item 1.e*      **Procedures — Chair****

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**Item 1.e.i.      **Parliamentary Procedures****

A summary of Parliamentary Procedures is attached for reference. The chair and secretary will answer questions regarding these procedures.

**Item 1.e.ii.      **Antitrust Compliance Guidelines****

On June 14, 2002, the NERC Board of Trustees adopted Antitrust Compliance Guidelines for NERC. In adopting the guidelines, the board passed the following resolution:

RESOLVED, that the Board of Trustees (1) adopts the draft Antitrust Compliance Guidelines attached hereto as Exhibit A and (2) instructs that these Antitrust Compliance Guidelines be included in the agenda package for each meeting of every NERC committee, subcommittee, task force, working group, and other NERC-sponsored activity.

The resolution also applies to workshops, training sessions, and any other NERC-sponsored event. A copy of the NERC Antitrust Compliance Guidelines will be included in the agenda package for each meeting of each group or event.

Attachments

1. Parliamentary Procedures
2. Antitrust Compliance Guidelines

## ***Item 1.f* Interchange Subcommittee Action Items List — Chair**

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### **Discussion**

The action items list is attached for the subcommittee to review prior to the meeting. The action item list will not be reviewed during the meeting. However, the chair or any member can discuss specific items or request assistance to close them.

### **Action**

Between meetings, the subcommittee is to review the action item list on a periodic basis and perform necessary tasks to close the items. The subcommittee secretary will schedule meetings, conference calls, and webcasts to support efforts to address the action items. It is the responsibility of the action figures to address and close their items.

### **Attachment**

IS Action Items List

## **Item 2. Interchange Subcommittee Scope — Chair**

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During the September 2007 IS Meeting, the IS made recommendations to change its scope document and to incorporate the changes into the NERC Operating Committee (OC) Subcommittee Policy. Attached for the IS to review and enhance are the two documents. Upon approval, the IS Scope document will be revised on the NERC IS web page and the changes to the NERC OC Subcommittee Policy will be submitted to the OC for their review and approval.

### **Action Item**

The IS will review, enhance, and approve the IS Scope and the NERC OC Subcommittee Policy.

### **Attachments**

1. IS Scope (redline)
2. NERC OC Subcommittee Policy (redline)

### **Item 3. Joint Interchange Scheduling Working Group**

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<b>Work Group</b>	<b>Work Group Chairs</b>
Joint Interchange Scheduling Work Group	Jim Hansen and Bob Harshbarger

#### ***Items 3.a e-Tag 1.8 — Jim Hansen and Bob Harshbarger***

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The Joint Interchange Scheduling Working Group (JISWG) has been very active in its planning, testing, and preparation for e-Tag 1.8 implementation on December 4, 2007.

Co-chairs Hansen and Harshbarger will report on the ongoing activities and upcoming dates for key milestones for the e-Tag 1.8 implementation process.

Activities have included or will include the following:

- Development of the e-Tag 1.8 Implementation Plan (ongoing)
- e-Tag 1.8 Specification development (ongoing)
- e-Tag 1.8 Schema development (ongoing)
- e-Tag 1.8 Vendor Interoperability Testing (complete)
- e-Tag 1.8 Tutorial/Question and Answer Session (complete)
- e-Tag 1.8 “Conditional Firm” Specification development (complete)
- e-Tag 1.8 Vendor-BA-RC and Vendor-to-Vendor Testing (every Tuesday as requested)
- e-Tag 1.8 Specification and Schema Implementation (scheduled December 4, 2007)

#### **Discussion**

The JISWG and e-Tag 1.8 vendors have been very active and diligent in its preparations for the implementation of e-Tag 1.8. The development, testing, and implementation preparation for e-Tag 1.8 has been very productive. However, there are numerous issues and concerns for the JISWG, the IS, and the NERC/NAESB community to participate in and to voice their opinions. The intent of the JISWG is to “get it right” during the implementation plan and this requires all parties to continue to participate in the process.

#### **Action**

The IS needs to determine if there are any show-stoppers that will prevent the scheduled e-Tag 1.8 implementation on December 4, 2007.

## **Item 4. Interchange Authority Registration — Chair**

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The NERC Rules of Procedure has a pending revision that will require registration of Interchange Authorities. Craig Lawrence, manager — Compliance Registration, Jim Cyrulewski, Al DeCaprio, and Roman Carter, Functional Model Working Group (FMWG) members made a presentation during the September 2007 IS meeting addressing the Functional Model Interchange Authority and the upcoming NERC Interchange Authority registration.

The FMWG members stated that the group is preparing to change the functional name from “Interchange Authority” to the “Interchange Coordinator.” There is no date set for the revision.

As of the posting of the meeting agenda, NERC has not issued the formal NERC Interchange Authority registration process notification letter. Mr. Lawrence did state that the Interchange Authority registration would be conducted by the Regional Reliability Organizations.

### **Discussion**

The chair and secretary will update the subcommittee on the latest developments regarding the registration of the Interchange Authority entities.

## **Item 5. NERC Reliability Standards**

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### **Item 5.a NERC Interchange “INT” Standards — Chair**

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#### Discussion

The Federal Energy Regulatory Commission (FERC) has specific instructions on how to enhance the “INT” standards (see the Mandatory Reliability Standards for the Bulk-Power System (issued March 16, 2007) Docket No. RM06-16-000; Order No. 693). These instructions are captured and included in the attachment. As examples:

FERC Order 693, paragraph 821: Accordingly, the Commission approves Reliability Standard INT-001-2 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to INT-001-2 through its Reliability Standards development process that includes a Requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area, including all grandfathered and “non-Order No. 888” transfers.

FERC Order 693, paragraph 866: Accordingly, the Commission approves Reliability Standard INT-006-1 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to INT-006-1 through the Reliability Standards development process that: (1) makes it applicable to reliability coordinators and transmission operators and (2) requires reliability coordinators and transmission operators to review energy interchange transactions from the wide-area and local area reliability viewpoints respectively and, where their review indicates a potential detrimental reliability impact, communicate to the sink balancing authorities necessary transaction modifications before implementation.

During the September 2007 IS meeting, the IS, as custodians of the NERC “INT” standards, reviewed the FERC Order 693, the NERC Three Year Standards Work Plan, and the INT-001 and INT-003 through INT-010 standards. The standards and documents were too much to review during the meeting. The IS members had an action item to review the documents that were included in the September IS Meeting Agenda and determine if SARs need to be generated in the near-term or if the NERC Three Year Standards Work Plan schedule to review and enhance the standards in 2009 is adequate.

#### Action

The NERC Three Year Standards Work Plan has the NERC INT Standards scheduled to be reviewed, enhanced, and revised as necessary in 2009. After the IS reviews the standards for accuracy and completeness, it may need to determine if there is urgency to initiate a SAR to revise the standards. However, if the current INT standards are adequate, the subcommittee can wait until the scheduled 2009 work plan revision.

#### Attachment

1. FERC Order 693, Extract for INT Standards
2. NERC Standards Three Year Plan — Extract for INT Standards

***Item 5.b*      **Timing Tables Standard Drafting Team — Bob Harshbarger****

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The Urgent Action SAR (INT-005-2, INT-006-2, INT-008-2) were approved for urgent action and are currently implemented. Bob Harshbarger submitted a SAR to develop permanent standards' revisions to incorporate the urgent action revisions. Mr. Harshbarger will update the IS on the latest developments and status of the SAR.

As of the posting of this agenda, the Timing Tables SAR drafting team was not formed.

Bob Harshbarger and Tom Vandervort will update the IS on the latest developments on this SAR and the respective SAR drafting team.

## **Item 6. Eastern Interconnection Interchange Tool — Tom Vandervort**

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The Western Interchange Tool (WIT) went into effect on May 1, 2007.

WIT has three phases:

Phase I: Electronic tagging

Phase II: Metering, scheduling, inadvertent, check-out hourly and at the end of the day

Phase III: Real-time calculation of ACE Scheduling, one minute real-time validation of net scheduled interchange, one minute net scheduled interchange profiles for AGC utilization (instantaneous and average values of net scheduled interchange)

WIT provides two primary benefits:

1. WIT provides a single source for the net schedules
2. WIT eliminates net schedule interchange that may be incorrect — allowing two Balancing Authorities (BAs) to agree to disagree. In the future, WIT will be the authoritative source for net schedule interchange.

### **Discussion**

The WECC Interchange Tool (WIT) is making significant progress in the Western Interconnection. Don Lacen and other WECC members will give a WIT update on the milestones and progress of the WIT tool.

The IS needs to discuss the possibility of implementing a similar interchange tool in the Eastern Interconnection. The WIT is experiencing the multi-Balancing Authority interconnection benefits from the WIT which may be duplicated in the Eastern Interconnection. The IS needs to determine if the WIT is a realistic possibility for the Eastern Interconnection.

### **Action**

The IS needs to determine if an interchange tool similar to the WECC WIT is desirable for the Eastern Interconnection. The subcommittee may form an inquiry task force to determine the positive and negative aspects for an interchange tool for the Eastern Interconnection. All aspects need to be analyzed including funding, central control, where such a tool will be hosted, who will contractually manage the interchange tool, is there interest in such a tool in the Eastern Interconnection, etc.

## **Item 7. 2008 Interchange Subcommittee Goals — Chair**

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During the September 2007 meeting the IS was asked to contemplate issues, concerns, and action items to be placed on the 2008 IS Work Plan. During this meeting, the IS will continue compiling its 2008 goals.

Don Lacen will lead the discussion.

## Item 8. Dynamic Schedule Information in the IDC — Chair

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The IS believes that including actual flow data for dynamic schedules in the IDC would be a better solution than utilizing average energy forecasts. This information is readily available by participating BAs Area Control Error (ACE) equations. In addition, the practice of using average energy forecasts for dynamic schedules is very difficult to monitor for compliance purposes. If metered data can be used in the IDC, then the IS will consider changing the standard to require maximum energy values in the e-Tag. This will provide a better reliability solution in forecast hours. The IS requested that the Operating Reliability Subcommittee (ORS) conducts the necessary investigations, utilizing the IDC Working Group if necessary, to determine the feasibility of this approach.

Currently reliability standard INT-004-1 (Dynamic Interchange Transaction Modifications) requires e-Tags for dynamic schedules to have an energy profile that reflects a forecast of the average energy expected for the hour. Requirement 2 of INT-004-1 states:

**R2.** The Purchasing-Selling Entity responsible for tagging a Dynamic Interchange Schedule shall ensure the tag is updated for the next available scheduling hour and future hours when any one of the following occurs:

**R2.1.** The Average energy profile in an hour is greater than 250 MW and in that hour the actual hourly integrated energy deviates from the hourly average energy profile indicated on the tag by more than +10%.

**R2.2.** The average energy profile in an hour is less than or equal to 250 MW and in that hour the actual hourly integrated energy deviates from the hourly average in that hour the actual hourly integrated energy deviates from the hourly average energy profile indicated on the tag by more than +25 megawatt-hours.

**R2.3.** A Reliability Coordinator or Transmission Operator determines the deviation, regardless of magnitude, to be a reliability concern and notifies the Purchasing-Selling Entity of that determination and the reasons.

During the May 2007 Joint IS-ORS meeting, the ORS Chairman referred the IS proposal to the IDC Working Group for technical evaluation.

### Reference:

IS Action Item: 2008 IS Goals

- Dynamic schedule pro-rata curtailments
  - Changing the tag does not affect dynamic schedule
    - Currently need to get two BAs to agree to a change on the meter value
    - What needs to be done to fix this situation?  
No longer an issue for the IS
  - Items in the Dynamic Schedule Reference Document may need to be transferred into a standard
    - Tag adjust may not be sufficient
  - Maintaining the dynamic transfer survey
    - Review results and send data to Resources Subcommittee (RS)
  - Updating dynamic schedule catalog
    - What to do with future planned dynamic schedules
    - What to do with registry
  - Dynamic schedule action items

- Complete review of the catalog
  - West — Lonnie and Don
  - East — Mike, Pat and Melinda
- Develop action plan

### Action

The subcommittee needs to: 1) receive the Interchange Distribution Calculator Working Group (IDCWG) technical evaluation for the above issue; and 2) address and close the respective dynamic schedule action items that are open, see reference, above.

Cheryl Mendrala (IS Proxy for John Simonelli), a member of the IDCWG, will update the IS on the IDCWG discussion and conclusions the working group reached during its October 2007 meeting. Specifically, what did the IDCWG decide to do regarding the incorporation of dynamic schedule information into the IDC.

The IDCWG discussion and conclusion will close out the IS action item or expand the action item(s).

## Item 9. Future Meetings

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Wednesday, February 24, 2008 Thursday, February 25, 2008	8 a.m.–5 p.m. 8 a.m.–noon	San Diego, CA
Wednesday, May 24, 2008 Thursday, May 25, 2008	8 a.m.–5 p.m. 8 a.m.–noon	Charleston, SC
Wednesday, September 24, 2008 Thursday, September 25, 2008	8 a.m.–5 p.m. 8 a.m.–noon	Vancouver, BC
Wednesday, November 24, 2008 Thursday, November 25, 2008	8 a.m.–5 p.m. 8 a.m.–noon	Austin, TX

### Notes:

1. Schedule meetings before the OC and Planning Committee (PC) meetings, whenever possible.
2. Avoid scheduling meetings 30 days before NERC Board of Trustees meetings.
3. Schedule additional meetings, conference calls, or webcasts as deemed necessary to address and accomplish subcommittee or task force business.
4. Conduct future IS 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 webcasts; and 3) to initiate consensus building or decision-making forums.
5. Determine if the IS will continue to schedule joint meetings with the NERC-NAESB Joint Interchange Schedule Working Group (JISWG), and with the NERC ORS.

## Interchange Subcommittee

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<b>Vice Chair &amp; RFC</b>	Christopher Pacella Analyst-Operations Development	PJM Interconnection, L.L.C 955 Jefferson Avenue Valley Forge Corporate Center Norristown, Pennsylvania 19403	(610) 666-4469 (610) 666-4282 Fx pacelc@pjm.com
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<b>NPCC</b>	Pat Doran Manager-Market Facilitation	Independent Electricity System Operator Station A Box 4474 Toronto, Ontario M5W 4E5	(905) 855-6233 (905) 855-6249 Fx pat.doran@ieso.ca
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<b>SERC</b>	Larry M. Goins Manager, Operations Support	Tennessee Valley Authority 1101 Market Street Chattanooga, Tennessee 37402	(423) 751-7627 (423) 751-3433 Fx lmgoin@tva.gov
<b>WECC</b>	James Michael Hansen Strategic Advisor	Seattle City Light 614 NW 46 <sup>th</sup> Street Seattle, Washington 98107	(206) 706-0165 (206) 706-0183 Fx James.hansen@seattle.gov
<b>MRO</b>	Shane T. Jenson Senior Energy Coordinator	Omaha Public Power District Mail Stop 10E – EP1 444 South 16 <sup>th</sup> Street Mall Omaha, NE 68102-2247	(402) 514-1002 (402) 514-1000 Fx sjenson@oppd.com
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<b>SPP</b>	Melinda K. Montgomery Transmission Business Manager, Operations	Entergy Services, Inc. 5201 West Barraque Pine Bluff, Arkansas 71602	(870) 541-4578 (870) 541-3964 Fx Mmontg3@entergy.com
<b>SERC</b>	Michael L. Oatts Manager, System Control	Southern Company Services Mail Bin PCC 600 18th Street North Birmingham, Alabama 35203	(205) 257-7743 (205) 257-6663 Fx mloatts@southernco.com
<b>WECC</b>	Lonnie Rush - resigned	WECC will nominate an individual to replace Mr. Rush	

<b>NPCC</b>	John M. Simonelli Manager Tariff, Schedules & OASIS	ISO New England, Inc. One Sullivan Road Holyoke, Massachusetts 01040-2841	(413) 535-4157 (413) 535-4343 Fx jsimonelli@iso-ne.com
<b>WECC</b>	Troy Simpson BPA Scheduler	Bonneville Power Administration 5411 NE Highway 99 Vancouver, Washington 98663	(360) 418-8659 (360) 418-8183 Fx tdsimpson@bpa.gov
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<b>Staff Coordinator</b>	Thomas J. Vandervort Reliability Assessment & Performance Analysis Coordinator	North American Electric Reliability Council 116-390 Village Boulevard Princeton, New Jersey 08540-5731	(609) 452-8060 (609) 452-9550 Fx tom.vandervort@ nerc.net

# Parliamentary Procedures

Based on Robert's Rules of Order, Newly Revised, 10th Edition, plus "Organization and Procedures Manual for the NERC Standing Committees"

## Motions

Unless noted otherwise, all procedures require a "second" to enable discussion.

When you want to...	Procedure	Debatable	Comments
Raise an issue for discussion	Move	Yes	The main action that begins a debate.
Revise a Motion currently under discussion	Amend	Yes	Takes precedence over discussion of main motion. Motions to amend an amendment are allowed, but not any further. The amendment must be germane to the main motion, and can not reverse the intent of the main motion.
Reconsider a Motion already approved	Reconsider	Yes	Allowed only by member who voted on the prevailing side of the original motion.
End debate	Call for the Question or End Debate	Yes	If the Chair senses that the committee is ready to vote, he may say "if there are no objections, we will now vote on the Motion." Otherwise, this motion is debatable and subject to 2/3 majority approval.
Record each member's vote on a Motion	Request a Roll Call Vote	No	Takes precedence over main motion. No debate allowed, but the members must approve by 2/3 majority.
Postpone discussion until later in the meeting	Lay on the Table	Yes	Takes precedence over main motion. Used only to postpone discussion until later in the meeting.
Postpone discussion until a future date	Postpone until	Yes	Takes precedence over main motion. Debatable only regarding the date (and time) at which to bring the Motion back for further discussion.
Remove the motion for any further consideration	Postpone indefinitely	Yes	Takes precedence over main motion. Debate can extend to the discussion of the main motion. If approved, it effectively "kills" the motion. Useful for disposing of a badly chosen motion that can not be adopted or rejected without undesirable consequences.
Request a review of procedure	Point of order	No	Second not required. The Chair or secretary shall review the parliamentary procedure used during the discussion of the Motion.

## Notes on Motions

**Seconds.** A Motion must have a second to ensure that at least two members wish to discuss the issue. The "second" is not recorded in the minutes. Neither are motions that do not receive a second.

**Announcement by the Chair.** The Chair should announce the Motion before debate begins. This ensures that the wording is understood by the membership. Once the Motion is announced and seconded, the Committee "owns" the motion, and must deal with it according to parliamentary procedure.

## Voting

Voting Method	When Used	How Recorded in Minutes
Unanimous Consent	When the Chair senses that the Committee is substantially in agreement, and the Motion needed little or no debate. No actual vote is taken.	The minutes show "by unanimous consent."
Vote by Voice	The standard practice.	The minutes show Approved or Not Approved (or Failed).
Vote by Show of Hands (tally)	To record the number of votes on each side when an issue has engendered substantial debate or appears to be divisive. Also used when a Voice Vote is inconclusive. (The Chair should ask for a Vote by Show of Hands when requested by a member).	The minutes show both vote totals, and then Approved or Not Approved (or Failed).
Vote by Roll Call	To record each member's vote. Each member is called upon by the Secretary,, and the member indicates either "Yes," "No," or "Present" if abstaining.	The minutes will include the list of members, how each voted or abstained, and the vote totals. Those members for which a "Yes," "No," or "Present" is not shown are considered absent for the vote.

### Notes on Voting

(Recommendations from DMB, not necessarily Mr. Robert)

**Abstentions.** When a member abstains, he is not voting on the Motion, and his abstention is not counted in determining the results of the vote. The Chair should not ask for a tally of those who abstained.

**Determining the results.** The results of the vote (other than Unanimous Consent) are determined by dividing the votes in favor by the total votes cast. Abstentions are not counted in the vote and shall not be assumed to be on either side.

**"Unanimous Approval."** Can only be determined by a Roll Call vote because the other methods do not determine whether every member attending the meeting was actually present when the vote was taken, or whether there were abstentions.

**Majorities.** Robert's Rules use a simple majority (one more than half) as the default for most motions. NERC uses 2/3 majority for all motions.

## **NERC ANTITRUST COMPLIANCE GUIDELINES**

### **I. GENERAL**

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

### **II. PROHIBITED ACTIVITIES**

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

Approved by NERC Board of Trustees, June 14, 2002  
Technical revisions, May 13, 2005

### III. ACTIVITIES THAT ARE PERMITTED

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation and Bylaws are followed in conducting NERC business. Other NERC procedures that may be applicable to a particular NERC activity include the following:

- Reliability Standards Process Manual
- Organization and Procedures Manual for the NERC Standing Committees
- System Operator Certification Program

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.



NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

**Interchange Subcommittee  
November 14-15, 2007 Meeting  
Open Action Item List**

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
Don Lacen	Interchange Authority Definition	<p>050207, The subcommittee will seek clarification from the Functional Model Working Group and request the FMWG to post a clear and unambiguous “Interchange Authority” description, specific responsibilities, and a determination whether the interchange authority is an entity or a function</p> <p>090407, TV sent e-mail requesting FMWG to address the above action item during their conference call on Wednesday, Sep 5.</p> <p>091007, NERC will begin registering entities as Interchange Authorities. Look for a formal letter from Craig Lawrence, NERC Manager of Registration and Certification.</p> <p>111407, When registration begins, this action item will be closed.</p>	111407	
Don Lacen	2007 IS Goals	<p>010107, Don Lacen reviewed the IS goals for the remainder of 2007 and asked that this be a posted, and updated as necessary, on the IS website. The goals for 2007 are:</p> <p>a. Changes to IDC to use dynamic data rather than the tag</p> <ul style="list-style-type: none"> <li>• Submit a letter to the IDCWG to make the appropriate changes               <ul style="list-style-type: none"> <li>• ICCP or SDX</li> <li>• Letter sent to the ORS in May, 2007</li> <li>• IDCWG meeting in Oct, 2007 will generate a response</li> </ul> </li> </ul> <p>b. JISWG to issue a SAR to relax approval times for ATF issues for INT and Coordinate</p> <p>c. Interchange standards. Need timing table for both standards.</p>	<p>a. 123107</p> <p>b. 033007</p> <p>c. 033007</p> <p>d. 123107</p>	<p>a.</p> <p>b. 033007</p> <p>c. 033007</p> <p>d.</p>

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<p>d. Dynamic Schedule pro-rata curtailments</p> <ul style="list-style-type: none"> <li>• Changing the tag does not affect dynamic schedule <ul style="list-style-type: none"> <li>• Currently need to get two BAs to agree to a change on the meter value</li> <li>• What needs to be done to fix this situation? <ul style="list-style-type: none"> <li>a. No longer an issue for the IS</li> </ul> </li> </ul> </li> <li>• Items in the Dynamic Schedule Reference Document may need to be transferred into a standard <ul style="list-style-type: none"> <li>• Tag adjust may not be sufficient</li> </ul> </li> <li>• Maintaining the dynamic transfer survey <ul style="list-style-type: none"> <li>• Review results and send data to Resources Subcommittee</li> </ul> </li> <li>• Updating dynamic schedule catalog <ul style="list-style-type: none"> <li>• What to do with future planned dynamic schedules</li> <li>• What to do with registry</li> </ul> </li> <li>• Dynamic schedule action items <ul style="list-style-type: none"> <li>• Complete review of the catalog <ul style="list-style-type: none"> <li>a. West – Lonnie and Don</li> <li>b. East – Mike, Pat and Melinda</li> </ul> </li> <li>• Develop action plan</li> </ul> </li> </ul> <p>e. Continue work on E-tag 1.8 implementation plan (December 5<sup>th</sup>)</p> <ul style="list-style-type: none"> <li>• Vendor Interoperability Testing <ul style="list-style-type: none"> <li>• Aug 7 &amp; 9, 2007 - complete</li> <li>• Aug 13 &amp; 15, 2007 - complete</li> </ul> </li> <li>• User training <ul style="list-style-type: none"> <li>• Sep 7, 2007</li> <li>• Sep 11, 2007</li> <li>• Sep 25, 2007</li> </ul> </li> </ul> <p>f. Getting more market participants to attend IS meetings</p> <p>g. Draft site acceptance test plan for e-Tag 1.8</p>	<p>e. 120507</p> <p>f. 123107</p> <p>g. 091907</p>	<p>e.</p> <p>f.</p> <p>g. 090107</p>
Jim Hansen and Bob Harshbarger	E-Tag version 1.8	032307, The Interchange Subcommittee will implement the E-Tag, version 1.8 implementation plan:  Notes:	120507	

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<p>1) The dates are tentative and subject to change, depending on obstacles encountered during the implementation of the project plan.</p> <p>2) Additional meetings, conference calls/webcasts, workshops may be scheduled to support the project plan.</p> <p>092007, Implementation plan is complete and posted on NERC and NAESB websites. This item will continue to be shown until e-Tag 1.8 is implemented, tentatively on Dec 5, 2007</p>		
		<p>E-Tag, version 1.8 implementation plan:</p> <p>E-Tag 1.8 Project Implementation Plan posted for 30 day comment period (March 20 – April 20, 2007)</p>	032007	032007
		<p>E-Tag, version 1.8 implementation plan:</p> <p>Develop and Post Responses to Industry Comments on NERC and NAESB web sites (IS and JISWG Generate Responses and Incorporate Changes to the Final Plan)</p>	050307	051007
		<p>E-Tag, version 1.8 implementation plan:</p> <p>E-Tag, version 1.8 Vendor Development (May 3 – August 5, 2007)</p> <p>081507, Vendor Interoperability Testing complete</p>	080507	081507
		<p>E-Tag, version 1.8 implementation plan:</p> <p>IS and JISWG to Create Industry Tutorial / Q&amp;A / Information Sharing Coordinated Webcasts</p> <p>083007, JISWG prepared Tutorial presentation for upcoming webcast/conf call</p>	082507	083007
		<p>E-Tag, version 1.8 implementation plan:</p> <p>Interoperability Vendor Testing, August 5 – September 5, 2007</p> <ul style="list-style-type: none"> <li>• NERC / NAESB Facilitation</li> <li>• Set-up Interoperability Examples</li> <li>• Draft site acceptance test plan</li> <li>• Etc.</li> </ul>	090507	081507

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		Details to be worked out 081507, Vendor Interoperability Testing complete on Aug 7 & 9; and Aug 13 & 15.		
		E-Tag, version 1.8 implementation plan:  Industry Training / User testing / Workshops (tentatively schedule 4 workshops) / (September 5 – November 2, 2007)  080707, e-Tag 1.8 Tutorial webcasts / conference calls schedule: <ul style="list-style-type: none"> <li>• Friday, Sep 7, 2007</li> <li>• Tuesday, Sep 11, 2007</li> <li>• Tuesday, Sep 25, 2007</li> </ul>	092507	092507
Mike Oatts	IDC Real-time Data Updates	021507, Mike Oatts to discuss with someone on the IDCWG regarding what can IDC (IDCWG) do related to real-time data updates.  092007, Cheryl Mendrala (proxy for John Simonelli) reported that a letter from the IDCWG (Cheryl is a member of the IDCWG) to the ORS and IS regarding incorporation of tdynamic schedule information into the IDC will be finalized during the Oct, 2007 IDCWG meeting.	111507	
Interchange Subcommittee	INT-006 Revision	050307, Tom V to contact NERC Standards Group to determine if the standards group or the Interchange Subcommittee will take the initiative to revise INT-006 (Reliability Coordinator and Transmisison Operator to review energy interchange transactions from wide-area viewpoints) to satisfy FERC Order 693.  092007, IS to determine if NERC Standards Work Plan is adequate to revise INT-006 in 2009; or if a revision is needed sooner. Evaluation and decision to be made during the Nov, 2007 IS meeting.	111507	
Interchange Subcommittee	INT-001 Revision	050307, Tom V to contact NERC Standards Group to determine if the standards group or the Interchange Subcommittee will take the initiative to revise INT-001 (e-tag revision that is associated with the Order) to satisfy FERC Order 693.  092007, IS to determine if NERC Standards Work Plan is adequate to revise INT-001 in 2009; or if a revision is needed sooner. Evaluation and decision to be made during the Nov, 2007 IS meeting.	111507	
Interchange Subcommittee	INT Standards Revisions	050307, Tom V to check with the Standards Group to see who will revise the “INT” standards to address the FERC Order 693 for INT standards, address the NERC 3 Year Work Plan, bring the standards up to the NERC Standards Process criteria, and to work with NAESB to ensure the requirements are complementary to each other.	111507	

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		092007, IS will review INT standards and determine if they are adequate to wait for the NERC Standards 3 Year Work Plan (INT Standards are scheduled to be reviewed, and revised as necessary in 2009).		
Tom Vandervort	Create a link to IS work plan on NERC IS website	050207, Tom V to create a link on the NERC IS website to display the IS 2008 Work Plan. 091907, When 2008 IS Scope and/or Work Plan is developed, NERC IT will post on the NERC IS website.	113007	

## SCOPE

### INTERCHANGE SUBCOMMITTEE

#### Purpose

The Interchange Subcommittee ~~develops, maintains, and oversees the implementation of reliability standards that provide for the movement~~facilitates for the interchange of Balancing Authorities' of energy across the transmission network in a reliable and efficient manner.

#### Scope

The Interchange Subcommittee ~~develops, maintains and oversees the implementation of the reliability standards and compliance requirements~~facilitates issues specifically related to:

- Market requests to implement and/or modify ~~physical~~ transactions that modify interchange reliability.
- Reliability requests to modify physical transactions.
- ~~Implementation of requests as scheduled by operational entities.~~

The Interchange Subcommittee will also:

- Assist in developing programs and facilities associated with ~~the transfer of energy~~interchange transactions. This includes development of the business plan, including costs, and schedules for developing system projects and training.
- ~~Develop metrics and compliance templates for performance measurement.~~
- Assist ~~the Personnel Subcommittee~~ in developing training materials ~~for system operators~~.

#### Reliability Standard Responsibility

- ~~1. INT-001-0 — "Interchange Transaction Tagging"~~
- ~~2. INT-002-0 — "IT Tag Communication and Assessment"~~
- ~~3. INT-003-0 — "Interchange Transaction Implementation"~~
- ~~4.1. INT-004-0 — "Interchange Transaction Modification~~ NERC "INT" Interchange Reliability Standards

#### Reporting

The Interchange Subcommittee reports to the NERC Operating Committee and shall maintain communications with ~~the Planning Committee, and~~ other groups as necessary on relevant issues.

#### Membership

##### General Requirements

Interchange Subcommittee membership requirements are focused on expertise and allow the subcommittee the flexibility it needs to ensure it has this expertise.

Expertise. The Interchange Subcommittee must have sufficient expertise within its ranks to fully understand the standards for which the subcommittee is assigned custodianship.

**Commitment and participation.** Interchange Subcommittee members must be *committed to their service on the subcommittee. This means preparing for and actively participating in all subcommittee meetings in person or on conference calls. It also means writing and reviewing draft reports, serving on SAR and standards drafting teams if selected, and bringing issues to their Regional Councils, trade organizations, and utilities for further discussion and insight.*

**Replacing members.** The subcommittee may request a replacement for its member that misses three consecutive meetings without sending a proxy.

**Required membership.** Each subcommittee will include, as a minimum, the following members who may vote:

#### **Voting Members — Required**

- 1. Regional representatives.** Each regional reliability council will provide at least one member. The regions will select their representatives based on their expertise in the Interchange Subcommittee's subject matter.
- 2. Interconnections and countries.** If the set of regional representatives does not provide for at least one representative from each Interconnection and two representatives from the U.S. and Canada, the subcommittee chairman, working with the NERC staff, will ask for *additional members* from the regional reliability councils or trade organizations as necessary to fulfill these requirements.

#### **Voting Members — Additional**

- 3. Additional invited members.** The Interchange Subcommittee will tap additional members as needed for their expertise. The subcommittee officers will seek recommendations from trade organizations, regional councils, and individual organizations.

#### **Non-voting members — Guests and observers**

Interchange Subcommittee meetings are open to others who wish to attend as a guest of the subcommittee. The chairman will provide guests and observers the opportunity to contribute to the subcommittee's discussions, provided the subcommittee's voting members have sufficient time to:

- 1. Complete the debate of their motions, and**
- 2. Complete the meeting agenda.**

- ~~▪Eighteen members plus chairman.~~
- ~~▪Membership is divided between transmission operators/system operators and transmission customers.~~

## Officers

The Operating Committee chairman appoints the Interchange Subcommittee officers (the chair and vice chair) for a specific term (generally two years). The subcommittee officers may be reappointed for additional terms.

~~The Interchange Subcommittee officers are considered members of the subcommittee and may vote. Chairman and vice chairman, selected by the Operating Committee chairman and vice chairman. The chairman does not represent an industry sector. Both officers may vote.~~

## Meeting Procedures

### General

The Interchange Subcommittee follows the meeting procedures explained in these two documents:

1. The latest edition of the Organization and Procedures Manual For NERC Standing Committees, and
2. *Robert's Rules of Order, Newly Revised.*

**Quorum.** A quorum for conducting business is 50% of the Interchange Subcommittee members listed on the current subcommittee roster. If a quorum is not present, then the subcommittee may not take any actions requiring a vote of the subcommittee. However, the chair may, with the consent of the members present, allow discussion of agenda items.

**Minority Opinions and Personal Comments.** The minutes of every Interchange Subcommittee meeting will include exhibits for minority opinions and personal comments. The chair shall communicate both the majority and any minority views when presenting subcommittee discussion results with the Operating Committee.

- ~~▪ Quorum: 50% of subcommittee members eligible to vote~~
- ~~▪ All other procedures follow those of the "Organization and Procedures Manual for the NERC Standing Committees."~~

## Subgroups

The Interchange Subcommittee may form task forces and working groups as necessary, and Operating Committee approval is not necessary. The subcommittee must review the progress of its subgroups at least annually and agree to either continue or disband these groups as needed.

Task forces are usually ad-hoc and are not expected to exist after completing their assignments. Working groups are on-going.

~~The Interchange Subcommittee may form working groups, task groups, and task forces as needed to assist the subcommittee in carrying out standing or ad hoc assignments. Task force and working group chairmen (or delegates) are expected to attend the regular subcommittee meetings to report on assignments.~~

- The [Joint Interchange Scheduling Working Group \(JISWG\)](#) will address joint issues within the scope of the NAESB Wholesale Electric Quadrant (WEQ) Information

Technology Subcommittee (ITS) and the NERC Interchange Subcommittee (IS) due to the interdependency of commercial and reliability activities between NAESB and NERC.

# **Operating Committee Subcommittee Organization and Procedures**

## ***Introduction***

This document includes the following sections:

1. Purpose of the Operating Committee subcommittees
2. Meeting procedures
3. Officers
4. Subgroups
5. Membership
6. Scopes
7. Standards Assignments
8. Approving changes to this document

## ***Purpose of the Operating Committee Subcommittees***

The subcommittees' principal role is to provide the Operating Committee with the technical expertise that the committee needs to make informed system operations policy decisions. In addition, the subcommittees:

1. Perform studies for the Operating Committee,
2. Serve as "custodians" for those reliability standards that pertain to system operation,
3. Help the NERC staff respond to government inquiries,
4. Work with NAESB groups,
5. Explain operating concepts, issues, and solutions to the NERC board,
6. Evaluate the performance of the Interconnections against NERC's reliability standards,
7. Recommend changes to those standards to ensure they remain effective, and
8. Work with NAESB as it develops business practices that effectively complement the reliability standards.

Some subcommittees have additional responsibilities, and those are listed in their individual scopes.

## **Relationship with NAESB**

Coordination between NERC and NAESB is essential because of the close tie between reliability standards and complementary business practices. Therefore, NERC and NAESB form joint subgroups when it's necessary to develop standards and business practices that are closely related. In those cases, the joint subgroup will report to both the NERC Operating Committee or one of its designated subcommittees, and the NAESB Executive Committee.

## ***Meeting Procedures***

### **General**

Other than the procedures listed below, the subcommittees follow the meeting procedures explained in these two documents:

1. The latest edition of the Organization and Procedures Manual For NERC Standing Committees, and

2. *Robert's Rules of Order, Newly Revised.*

**Quorum.** A quorum for conducting business is 50% of the members listed on the current Subcommittee roster. If a quorum is not present, then the subcommittee may not take any actions requiring a vote of the subcommittee. However, the chair may, with the consent of the members present, allow discussion of agenda items.

**Minority Opinions and Personal Comments.** The minutes of every subcommittee meeting will include exhibits for minority opinions and personal comments, respectively. The chairman shall communicate both the majority and any minority views in presenting results to the Operating Committee.

**Minutes**

A guide for subcommittee minutes is found in Appendix A.

**Officers**

The Operating Committee chairman appoints the subcommittee officers (typically a chairman and vice chairman) for a specific term (generally two years). The subcommittee officers may be reappointed for additional terms.

Subcommittee officers are considered members of the subcommittee and may vote.

**Subgroups**

The Subcommittee may form task forces and working groups as necessary, and Operating Committee approval is not necessary. The Subcommittee must review the progress of its subgroups at least annually and agree to either continue or disband these groups as needed.

Task forces are usually ad-hoc and are not expected to exist after completing their assignments. Working groups are on-going.

**Membership**

**General Requirements**

Membership requirements are focused on *expertise* and allow the subcommittees the flexibility they need to ensure they have this expertise.

**Expertise.** Each subcommittee must have sufficient expertise within its ranks to fully understand the standards for which the subcommittee is assigned custodianship. This means that NERC expects utilities, Regional Councils, and trade organizations to provide their best experts.

The expertise that subcommittees need will often include people involved in market operations and business practices, as well as those in system operations. Or will involve people from various geographic areas of North America. Subcommittees who find that their ranks do not include sufficient expertise to deal with the subjects at hand should seek additional members with that knowledge and experience.

**Commitment and participation.** Subcommittee members must be *committed* to their service on the subcommittees. This means preparing for and actively *participating* in all subcommittee meetings in person or on conference calls. It also means writing and reviewing draft reports, serving on SAR and standards drafting teams if selected, and bringing issues to their Regional Councils, trade organizations, and utilities for further discussion and insight.

**Replacing members.** The subcommittee may request a region, an ISO/RTO, or other industry organization to nominate an individual that meets the above criteria as a replacement for its member that misses three consecutive meetings without sending a proxy.

**Required membership.** Each subcommittee will include, as a minimum, the following members who may vote:

**Voting Members — Required**

1. **Regional representatives.** Each regional reliability council will provide one member. The regions will select their representatives based on their expertise in the subcommittee's subject matter.
2. **Interconnections and countries.** If the set of regional representatives does not provide for at least one representative from each Interconnection and two representatives from the U.S. and Canada, the subcommittee chairman, working with the NERC staff, will ask for *additional members* from the regional reliability councils or trade organizations as necessary to fulfill these requirements.

**Voting Members — Additional**

3. **Additional invited members.** The subcommittee will tap additional members as needed for their expertise. The subcommittee officers will seek recommendations from trade organizations, regional councils, and individual organizations. For example, the Operating Reliability Subcommittee will most likely want several Reliability Coordinators as members. The Resources Subcommittee may need Generator Operators and Market Operators. The Interchange Subcommittee may need Purchasing-Selling Entities

**Non-voting members — Guests and observers**

Subcommittee meetings are open to others who wish to attend as a guest of the subcommittee. The chairman will provide guests and observers the opportunity to contribute to the subcommittee's discussions, provided the subcommittee's voting members have sufficient time to:

1. Complete the debate of their motions, and
2. Complete the meeting agenda.

## Subcommittee Scopes

Resources Subcommittee	
Last Scope Revision Date	9/15/05
Web page	<a href="http://www.nerc.com/~oc/rs.html">http://www.nerc.com/~oc/rs.html</a>
Scope	<p>The NERC Operating Committee delegates to the Resources Subcommittee the responsibility to be the initial interface with the balancing authority function, the generator operator function, and the generator owner function, to initiate resolution of balancing authority-related operations issues and the technical interpretation of the balancing authority-related operating reliability standards.</p> <ol style="list-style-type: none"> <li>1. Load-generation balancing</li> <li>2. Interchange deployment</li> <li>3. Inadvertent interchange accounting and payback</li> <li>4. Control performance</li> <li>5. Automatic Generation Control</li> <li>6. Time Error Correction</li> <li>7. Operating Reserve</li> <li>8. Frequency Response</li> </ol>
Specific Responsibilities	<ol style="list-style-type: none"> <li>1. Support the Operating Committee by addressing technical issues primarily related to the balancing authority, generator operator, generator owner, and reliability coordinator functions.</li> <li>2. Assess the effectiveness and impacts of balancing authority-related operations reliability standards.</li> <li>3. Identify the need for new balancing authority reliability standards or revisions to standards and initiate standards action by submitting SARs.</li> <li>4. Assist the standards process by providing expert resources in support of the development of balancing authority reliability SARs and standards.</li> <li>5. Assist the standards process by providing a forum for balancing authority reliability standards discussion, sharing of views, and informed debate.</li> <li>6. Review balancing authority standards to facilitate developing reference documents and performing other activities.</li> <li>7. Provide input and recommendations on the training issues concerning the balancing authority, generator operator, and generator owner.</li> <li>8. Provide technical assistance to monitor, evaluate, and process frequency and generation-load balancing data.</li> <li>9. Assist in the development of real-time and post-analysis tools to enhance and measure the reliability of the bulk power system.</li> <li>10. Independently evaluate proposed and existing NAESB business practices for impacts on frequency or load-generation balance control performance.</li> <li>11. Investigate compliance issues as requested by NERC compliance group(s).</li> <li>12. Define analytical methodologies and data retention to be used by the interconnections for data analyses provided to</li> </ol>

**Operating Committee Subcommittee Organization and Procedures**

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	<p>the RS.</p> <p>13. Investigate incidents as requested by the operating committee.</p>
Additional Tasks	<ol style="list-style-type: none"> <li>1. Evaluate frequency performance and characteristics independently across and within, in conjunction with, the interconnections of NERC.</li> <li>2. Evaluate balancing area control performance and characteristics independently across and within, in conjunction with, the interconnections of NERC.</li> <li>3. Define analytical methodologies and data retention to be used by the Interconnections for data analysis provided to the RS.</li> </ol>
Expertise	<ol style="list-style-type: none"> <li>1. Load-generation balancing</li> <li>2. Market operations</li> </ol>
Functional Model	<ol style="list-style-type: none"> <li>1. Balancing Authority</li> <li>2. Generator Operator</li> <li>3. Load-Serving Entity</li> <li>4. Purchasing Selling Entity</li> <li>5. Reliability Coordinator</li> <li>6. Reliability Authority</li> <li>7. Transmission Operator</li> <li>8. Interchange Authority</li> </ol>
Surveys and Reports	<ol style="list-style-type: none"> <li>1. Area Interchange Error</li> <li>2. Control Performance Standard</li> <li>3. Disturbance Control Standard</li> <li>4. Inadvertent Interchange</li> <li>5. Time Error</li> <li>6. Frequency Bias Settings</li> <li>7. Eastern Interconnection Average Frequency Error</li> </ol>
Additional Responsibilities	<ol style="list-style-type: none"> <li>1. Evaluate frequency performance and characteristics independently across and within, in conjunction with, the interconnections of NERC.</li> <li>2. Evaluate balancing area control performance and characteristics independently across and within, in conjunction with, the interconnections of NERC.</li> <li>3. Define analytical methodologies and data retention to be used by the Interconnections for data analyses provided to the RS.</li> </ol>
Subgroups	<ol style="list-style-type: none"> <li>1. Frequency Task Force — Deals with Interconnection frequency issues and brings recommendations to the subcommittee</li> <li>2. Reserves Task Force — Discusses operating reserve issues and brings recommendations to the subcommittee</li> </ol>

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Additional Directives	<p>Operating Committee Directive Ref: Operating Committee Meeting Minutes, November 10-11, 2004</p> <p>The following motions were approved by the Operating Committee on November 10–11, 2004:</p> <ol style="list-style-type: none"><li>1. The OC expects the Interconnections (Eastern, Western, ERCOT, and Hydro-Québec) to analyze their frequency to determine if NERC’s balancing standards are “safe and reliable.”</li><li>2. The OC understands that the Interconnections’ frequency profiles may be different.</li><li>3. The OC expects that these analyses be conducted according to a consistent set of analytical methodologies that the Resources Subcommittee establishes.</li><li>4. The OC expects the Interconnections to maintain this data and cooperate with the Resources Subcommittee’s needs to perform its analyses. The RS members will agree upon a data retention requirement.</li></ol> <p>After further discussion, the Operating Committee approved the following motion:</p> <p>“The Operating Committee’s regional representatives, regional managers, and the Resources Subcommittee are directed to ensure that this resolution is implemented with consideration given to other wide-area data collection initiatives already underway.”</p>
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Interchange Subcommittee	
Last Scope Revision Date	9/15/05
Web page	<a href="http://www.nerc.com/~oc/is.html">http://www.nerc.com/~oc/is.html</a>
Scope	<ol style="list-style-type: none"> <li>1. <u>Standards related to i</u>nterchange schedule implementation.</li> <li>2. <u>Standards related to i</u>nterchange schedule modifications</li> <li>3. Programs and systems associated with <del>the</del> <u>interchange transfers-of-energy</u>. This includes development of the business plan, including costs, and schedules for developing system projects and training.</li> </ol>
Expertise	<ol style="list-style-type: none"> <li>1. Interchange coordination and implementation</li> <li>2. Scheduling (including scheduling agents)</li> <li>3. Market operations</li> <li>4. Purchasing and selling</li> <li>5. Transmission service</li> </ol>
Functional Model	<ol style="list-style-type: none"> <li>1. Interchange Authority</li> <li>2. Purchasing-Selling Entity</li> <li>3. Balancing Authority</li> <li>4. <u>Transmission Providers</u></li> <li>5. <u>Transmission Service Providers</u></li> <li>6. <u>Transmission Operators</u></li> <li>7. <u>Reliability Coordinators</u></li> </ol>
Reports	None
Additional Responsibilities	Maintain <del>Dynamic Transfer Catalog</del> <u>Maintain</u> Interchange Reference Document, <del>Maintain Dynamic Transfer Reference Document, review</del> and assist in developing Reliability Standards for Interchange Scheduling.
Subgroups	Joint Interchange Scheduling Working Group (also reports to NAESB) – Develops protocols for OASIS- <del>1a</del> , e-tag, and TSIN Registry.

<b>Transmission Subcommittee</b>	
Last Scope Revision Date	9/15/05
Web page	<a href="http://www.nerc.com/~oc/ts.html">http://www.nerc.com/~oc/ts.html</a>
Scope	<p>The NERC Operating Committee delegates to the Transmission Subcommittee the responsibility to be the initial interface with the <b>transmission operator</b> function, the <b>transmission owner</b> function, and the <b>distribution operator</b> function, to initiate resolution of transmission-related operations issues and the technical interpretation of the transmission-related operating reliability standards.</p> <ol style="list-style-type: none"> <li>1. Transmission security limits</li> <li>2. Operational limits, flow management, and their impact on ATC</li> <li>3. Voltage and reactive control</li> <li>4. Coordination with adjacent transmission systems (Including maintenance)</li> <li>5. Transmission system relief (using local line load relief procedures or seeking help from reliability coordinators)</li> <li>6. Isolated operations</li> <li>7. System restoration</li> <li>8. Automatic load shedding</li> <li>9. Operational input into transmission system monitoring</li> <li>10. Operational input into transmission system protection</li> <li>11. Transmission service provider reliability standards</li> <li>12. Transmission owner and operator reliability standards</li> </ol> <p>And</p> <ol style="list-style-type: none"> <li>13. Assist in developing programs associated with operating reliability coordination.</li> <li>14. Develop metrics and compliance templates for performance measurement.</li> <li>15. Develop a project management plan for reliability standard changes which takes into consideration training requirements</li> </ol>
Specific Responsibilities	<ol style="list-style-type: none"> <li>1. Support the Operating Committee by addressing technical issues related to the transmission operator, transmission owner, and the distribution provider functions.</li> <li>2. Assess the effectiveness and impacts of transmission-related operations reliability standards.</li> <li>3. Identify the need for new transmission operations reliability standards or revisions to standards and initiate standards action by submitting SARs.</li> <li>4. Assist the standards process by providing expert resources in support of the development of transmission operations reliability SARs and standards.</li> <li>5. Assist the standards process by providing a forum for transmission operations reliability standards discussion, sharing of views, and informed debate.</li> <li>6. Review transmission operations standards to facilitate developing reference documents and performing other activities.</li> <li>7. Provide input and <b>recommendations on the training</b></li> </ol>

## Operating Committee Subcommittee Organization and Procedures

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	<b>issues concerning the transmission operator, transmission owner, and distribution provider.</b> <b>8.</b> Assist in the development of real-time tools for transmission operators to improve and enhance the reliability of the bulk power system.
Expertise	<ol style="list-style-type: none"><li>1. Transmission operations</li><li>2. Transmission service</li></ol>
Functional Model	<ol style="list-style-type: none"><li>1. Transmission Operator</li><li>2. Distribution Provider</li></ol>
Reports	None
Additional Responsibilities	
Subgroups	

<b>Operating Reliability Subcommittee</b>	
Last Scope Revision Date	9/15/05
Web page	<a href="http://www.nerc.com/~oc/ors.html">http://www.nerc.com/~oc/ors.html</a>
Scope	<p>Reliability coordination functions and responsibilities, including, but not limited to:</p> <ol style="list-style-type: none"> <li>1. Reliability analyses</li> <li>2. System Operating Limit and Interconnected Reliability Operating Limit violation mitigating procedures</li> <li>3. Local and Interconnection line loading relief procedures</li> <li>4. Energy emergency alert notification and mitigation</li> <li>5. Reliability Coordinator criteria and certification process</li> </ol> <p>And:</p> <ol style="list-style-type: none"> <li>6. Develops programs and facilities associated with operating reliability coordination. This includes development of the business plan, including costs, and schedules for developing system projects and training.</li> <li>7. Develops metrics and compliance templates for performance measurement.</li> <li>8. Assists the Personnel Subcommittee in developing training materials for Reliability Coordinators.</li> <li>9. Review reliability plans, and</li> <li>10. Approves minor membership changes</li> <li>11. Reviews significant organizational changes and provides recommendations to the Operating Committee</li> </ol>
Expertise	<ol style="list-style-type: none"> <li>1. Reliability coordination</li> <li>2. Transmission operation</li> <li>3. Load-generation balancing</li> <li>4. Purchasing and selling</li> </ol>
Functional Model	Reliability Authority (Reliability Coordinator)
Reports	None
Additional Responsibilities	<p>Review regional reliability plans and provides recommendations to the Operating Committee</p> <p>Manage the Interchange Distribution Calculator</p>
Subgroups	<ol style="list-style-type: none"> <li>1. Reliability Coordinator Working Group — Reliability coordination</li> <li>2. IDC Working Group — Maintains IDC curtailment algorithms and reviews change orders for IDC software changes</li> <li>3. Distribution Factors Working Group — Maintains base case model for IDC and distribution factor calculation methods</li> <li>4. Data Exchange Working Group — Establishes telecommunications protocols</li> <li>5. Telecommunications Working Group — Maintains NERCnet</li> </ol>

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Personnel Subcommittee	
Last Scope Revision Date	9/15/05
Web page	<a href="http://www.nerc.com/~oc/ps.html">http://www.nerc.com/~oc/ps.html</a>
Scope	<ol style="list-style-type: none"><li>1. Provides industry input and feedback to the NERC Training Staff in the development of workshops, seminars, training materials, delivery methods, and procedures.</li><li>2. Promotes the sharing of knowledge and information gained.</li><li>3. Serves as the technical advisor to the Personnel Certification Governance Body.</li><li>4. Serves as the governing body of the NERC Continuing Education Program.</li></ol>
Functional Model	<ol style="list-style-type: none"><li>1. Reliability Coordinator</li><li>2. Transmission Operator</li><li>3. Balancing Authority</li></ol>
Reports	None
Additional Responsibilities	Maintain Continuing Education Program
Subgroups	Training Resources Working Group — develops training documents Continuing Education Review Panel — reviews Continuing Education programs

## Reliability Standards Assignments

This table lists the standards and the subcommittees that have primary custodianship of those standards. These assignments are not exclusive. As the table highlights, many of the reliability standards address more than one responsible entity, so we expect the subcommittees to work with each other, as they have been. X=direct involvement; P=partial involvement

Standard	Title	RS	TS	PS	IS	ORS
<b>Balancing</b>						
BAL-001-0	Real Power Balancing Control Performance	X				
BAL-002-0	Disturbance Control Performance	X				
BAL-003-0	Frequency Response and Bias	X				
BAL-004-0	Time Error Correction	X				
BAL-005-0	Automatic Generation Control	X				
BAL-006-0	Inadvertent Interchange	X				
<b>Transmission Operations</b>						
TOP-001-0	Reliability Responsibilities and Authorities	P	X			X
TOP-002-0	Normal Operations Planning		X			
TOP-003-0	Planned Outage Coordination					X
TOP-004-0	Transmission Security		X			
TOP-005-0	Operating Reliability Information	P				X
TOP-006-0	Monitoring System Conditions	P	X			X
TOP-007-0	Reporting SOL and IROL Violations		X			
TOP-008-0	Response to Transmission Limit Violations		X			
<b>Voltage and Reactive Control</b>						
VAR-001-0	Voltage and Reactive Control		X			
<b>Interchange</b>						
INT-001-0	Interchange Transaction Tagging	P			X	
INT-002-0	IT Tag Communication and Assessment				X	
INT-003-0	Interchange Transaction Implementation	P			X	
INT-004-0	Interchange Transaction Modification				X	
<b>Protection Coordination</b>						
PRC-001-0	System Protection Coordination		X			
<b>Communications</b>						

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Standard	Title	RS	TS	PS	IS	ORS
COM-001-0	Telecommunications	P	X			X
COM-002-0	Communications and Coordination					X
<b>Emergency Operations</b>						
EOP-001-0	Emergency Operations Planning	P	X			
EOP-002-0	Capacity and Energy Emergencies	P				X
EOP-003-0	Load Shedding Plans		X			
EOP-004-0	Disturbance Reporting					X
EOP-005-0	System Restoration Plans		X			
EOP-006-0	Reliability Coordination – System Restoration					X
EOP-007-0	Standard Does Not Exist					
EOP-008-0	Plans for Loss of Control Center Functionality	P	X			X
<b>Critical Infrastructure</b>						
CIP-001-0	Sabotage Reporting					X
<b>Personnel</b>						
PER-001-0	Operating Personnel Responsibility and Authority	P		X		
PER-002-0	Operating Personnel Training			X		
PER-003-0	Operating Personnel Credentials			X		
PER-004-0	Reliability Coordination – Staffing			X		X
<b>Reliability Coordination</b>						
IRO-001-0	Reliability Coordination – Responsibilities and Authorities					X
IRO-002-0	Reliability Coordination – Facilities					X
IRO-003-0	Reliability Coordination – Wide Area View					X
IRO-004-0	Reliability Coordination – Operations Planning					X
IRO-005-0	Reliability Coordination – Current Day Operations	P				X
IRO-006-0	Reliability Coordination – Transmission Loading Relief					X

**Reference Documents**

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<b>Reference Document</b>	<b>Primary Subcommittee</b>
Performance Standards	Resources
Area Interchange Error Survey Training Document	
Frequency Response Characteristic Survey	
Inadvertent Interchange Accounting Training Document	
Interchange	Interchange
Reliability Coordinator	Operating Reliability Subcommittee
System Data Exchange	
Backup Control Center	

## **Approving Changes to this Document**

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1. The Operating Committee approves all changes to this document.
2. The Operating Committee may change a subcommittee's scope, assignments, and standards custodianship.
3. A subcommittee may ask the OC for permission to change the subcommittee's scope, assignments, and standards custodianship.

## **6. INT: Interchange Scheduling and Coordination**

795. The Interchange Scheduling and Coordination (INT) group of Reliability Standards addresses interchange transactions,<sup>278</sup> which occur when electricity is transmitted from a seller to a buyer across the power grid. Specific information regarding

<sup>276</sup> See supra P 779.

<sup>277</sup> Order No. 890 at P 196.

<sup>278</sup> The NERC glossary defines “interchange” as “Energy transfers that cross Balancing Authority boundaries.” NERC Glossary at 9.

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each transaction must be identified in an accompanying electronic label, known as a

“Tag” or “e-Tag” which is used by affected reliability coordinators, transmission service

providers and balancing authorities to assess the transaction for reliability impacts. Communication, submission, assessment and approval of a Tag must be completed for

reliability consideration before implementation of the transaction.

### **a. Interchange Authority**

796. The Version 1 INT Reliability Standards submitted with NERC’s August 28, 2006

supplemental filing include a new entity, the interchange authority, which oversees interchange transactions and is included as an applicable entity or referenced in the Requirements sections of INT-005-1, INT-006-1, INT-007-1, INT-008-1, INT-009-1 and

INT-010-1.<sup>279</sup> The Commission requested in the NOPR that NERC provide additional

information regarding the role of the interchange authority so that the Commission could

determine whether the interchange authority is a user, owner or operator of the Bulk-

Power System required to comply with mandatory Reliability Standards.

### **i. Comments**

797. ISO-NE states that it is unclear who the interchange authority should be, how its

tasks could be performed operationally and how the interchange authority function relates

to other reliability and market functions. ISO-NE states that NERC has not yet fully

incorporated the concept of an interchange authority into its Functional Model and has

not provided a means for an entity to register as an interchange authority under the

Functional Model. Finally, ISO-NE states that NERC must still create a process to allow the appropriate entities to register as interchange authorities so that their status is clear to all applicable entities, and it urges that approval of the Reliability Standards that have the interchange authority as an applicable entity be withheld until these issues are resolved.

798. APPA agrees that applicability of the Reliability Standards to the interchange authority is confusing. However, APPA suggests the best approach to the problem is for NERC to identify the source and sink balancing authorities as the applicable entity in these Reliability Standards until the Functional Model is revised to better specify the status and responsibility of interchange authorities.

279 The NERC Glossary defines an “interchange authority” as “the responsible entity that authorizes implementation of valid and balanced Interchange Schedules between Balancing Authority Areas, and ensures communication of Interchange information for reliability assessment purposes.” Id.

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799. EEI observes that there is considerable confusion throughout the industry regarding the registration process and the relationship between registration and applicability of standards, with the interchange authority being an example of that confusion. However, EEI states it understands that the role of an interchange authority is currently being addressed and revisions to the Functional Model are currently moving through the approval process. If Version 3 of the Functional Model is approved by the NERC Board, EEI believes it will clarify that a sink balancing authority performing a Tag authority service could serve as an interchange authority and this modification would address the Commission’s concern.

800. The CAISO suggests that it is premature to place any INT Reliability Standards involving an interchange authority into effect until more information is provided concerning the interchange authority’s role.

## **ii. Commission Determination**

801. The NERC glossary definition of interchange authority indicates that it is intended

to provide essentially a quality control function in verifying and approving interchange schedules and communicating that information. Our understanding is that, in the interim, sink and source balancing authorities will serve as interchange authorities until the ERO has further clarified an interchange authority's role and responsibility in the modification of the Functional Model and in the registration process. The new interchange authority function allows an entity other than a balancing authority to perform this function in the future; the pre-existing INT-001-1 Reliability Standard identified the balancing authority as the responsible entity to perform this function. Any such entity should be registered by the ERO in the ERO compliance registry, so that the responsibility of an entity, other than a balancing authority, that takes on this role in the future would be clear. 802. In short, there is sufficient clarity concerning the nature and responsibilities of this function for it to be implemented at this time. Withholding approval of INT Reliability Standards pending further clarification on this matter would create an unnecessary gap in the coverage of the Reliability Standards that potentially could threaten the reliability of the Bulk-Power System.

**b. Interchange Information (INT-001-2)**

803. INT-001-1 seeks to ensure that interchange information is submitted to the reliability analysis service identified by NERC.<sup>280</sup> This Reliability Standard applies to

<sup>280</sup> Currently, the reliability analysis service used by NERC is the Interchange Distribution Calculator.

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purchasing-selling entities and balancing authorities. It specifies two Requirements that focus primarily on establishing who has responsibility in various situations for submitting the interchange information, previously known as transaction tag data, to the reliability analysis service identified by NERC. The Requirements apply to all dynamic schedules,

delivery from a jointly owned generator and bilateral inadvertent interchange payback.

804. The Commission proposed in the NOPR to approve Reliability Standard INT-001-

1 as mandatory and enforceable. In addition, pursuant to section 215(d)(5) of the FPA

and § 39.5(f) of its regulations, the Commission proposed to direct NERC to submit a

modification to INT-001-1 that: (1) includes Measures and Levels of Non-Compliance

and (2) includes a Requirement that interchange information must be submitted for all

point-to-point transfers entirely within a balancing authority area, including all grandfathered and “non-Order No. 888” transfers.<sup>281</sup>

805. The Commission also noted in the NOPR that certain Requirements of INT-001-0

that relate to the timing and content of e-Tags had been deleted in the Version 1 Reliability Standard. NERC indicated that these Requirements are business practices that

would be included in the next version of the NAESB Business Practices. The Commission stated in the NOPR that NERC’s explanation of this change was acceptable

and proposed to approve INT-001-1 with the deletion of Requirements R1.1, R3, R4 and

R5. However, the Commission also noted that NAESB had not yet filed the e-Tagging

requirements as part of its business practices, and that if no such business practice has

been submitted at the time of the Final Rule, the Commission may reinstate these Requirements in the Final Rule.

806. NERC submitted INT-001-2, which supersedes the Version 1 Reliability Standards, in its November 15, 2006 filing. INT-001-2 adds Measures and Levels of

Non-Compliance to the Version 0 Reliability Standard. In this Final Rule, the Commission addresses INT-001-2, as filed with the Commission on November 15, 2006.

#### **i. Comments**

807. APPA states that NERC’s submission of INT-001-2 on November 15, 2006 has

fulfilled the Commission’s proposed directive to include Measures and Levels of Non-

Compliance in this Reliability Standard. APPA also states that, while it does not oppose

NERC consideration of the Commission's proposed directive regarding the submission of interchange information for all point-to-point transfers entirely within a balancing authority area, it does not understand the Commission's reliability concerns in this connection.

808. MidAmerican states that it favors the Commission's proposed directive to NERC for a modification of the Reliability Standard as a substantial improvement for reliability.

Constellation supports this proposal and states that the proposal, together with other initiatives, such as OATT reform, represent additional steps to achieving not only Bulk-Power System reliability, but also a reduction of undue discrimination in transmission services.

809. NERC disagrees with the Commission's proposal to direct the submission of interchange information on all point-to-point transfers within a balancing area. NERC

contends that this issue was discussed at great length in the Reliability Standards development process and the vast majority of commenters and voters agreed that such a

requirement would have no merit from a reliability perspective. It also states that such

data is not used today by the NERC interchange distribution calculator for reliability.<sup>282</sup>

Finally, NERC concludes that while it may be appropriate for this issue to be reconsidered in revisions to the Reliability Standards, a Commission directive to include

a requirement that the collective expertise and the consensus of the industry have determined to be unnecessary for reliability constitutes "setting the standard."

810. LPPC agrees with the Commission that Requirements R1.1, R3, R4 and R5 are

good business practices, and it states that for this reason they should not be included in

the Reliability Standards. These business practices should more appropriately be contained in NAESB standards, or perhaps the pro forma OATT.

811. ERCOT maintains that INT-001-1 is not appropriate for the ERCOT region. ERCOT states that it is a single balancing authority. To the extent that INT-001-1 requires tagging transfers within a single balancing authority, it cannot be applied to

ERCOT as written because all point-to-point transfers within ERCOT are financial transactions only. ERCOT notes that it tags transfers outside the ERCOT region. 812. Allegheny states that the requirement to tag point-to-point transactions cannot be

met in the PJM market where Tags are not used when a transaction's source and sink are

282 The NERC glossary defines the interchange distribution calculator as “[t]he mechanism used by Reliability Coordinators in the Eastern Interconnection to calculate

the distribution of Interchange Transactions over specific Flowgates. It includes a database of all Interchange Transactions and a matrix of the Distribution Factors for the

Eastern Interconnection.” NERC Glossary at 9.

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within the PJM footprint. Such transactions are reported through the PJM eSchedule

system, which already provides adequate information for the PJM region to conduct

reliability and curtailment analyses. Allegheny states that there is no reliability gap in the

PJM market arising from this issue.

813. Santa Clara submits that LSEs should be applicable entities under proposed revised INT-001-2 to ensure that they have adequate notice of the requirements of this

Reliability Standard. It states that the actions of LSEs are implicated in Requirement R1

of this proposed Reliability Standard.<sup>283</sup>

## **ii. Commission Determination**

814. The Commission approves INT-001-2 as a mandatory and enforceable Reliability

Standard. In addition, we direct the ERO to develop modifications to the Reliability

Standard through the Reliability Standards development process, as discussed below.

815. We agree with APPA that INT-001-2, submitted on November 15, 2006 includes

Measures and Levels of Compliance, and we will not direct any further action regarding

Measures and Levels of Compliance at this time.

816. MidAmerican and Constellation support the Commission's proposal that this Reliability Standard include a Requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area,

including all grandfathered and “non-Order No. 888” transfers. The Commission points out that unless these grandfathered and “non-Order No. 888” transfers are included in one of the INT Reliability Standards, they might not be subject to appropriate curtailment as necessary due to system conditions. Curtailments are determined using the interchange distribution calculator. Unless transactions internal to a balancing authority area are included in the calculator as we proposed, they are not recognized by the calculator and may never be curtailed. For instance, even if a transaction internal to a balancing authority area is non-firm and some inter-balancing authority trades are firm, the latter could be cut before the former, despite the curtailment priorities in the Order No. 888 tariff. While we recognize that most trades internal to a balancing authority area do not affect interchange, some do, since electricity flows do not necessarily follow the contract path.

<sup>283</sup> INT-001-2 Requirement R1 provides that the LSE and purchasing-selling entity shall ensure that arranged interchange is submitted to the interchange authority.

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817. In addition, e-Tagging of such transfers was previously included in INT-001-0 and

the Commission is aware that such transfers are included in the e-Tagging logs. In short,

the practice already exists, but if this Requirement is removed from INT-001-2, no Reliability Standard would require that such information be provided. We therefore will

adopt the directive we proposed in the NOPR and direct the ERO to include a modification to INT-001-2 that includes a Requirement that interchange information must

be submitted for all point-to-point transfers entirely within a balancing authority area,

including all grandfathered and “non-Order No. 888” transfers.

818. The Commission agrees with ERCOT’s conclusion that the Reliability Standard

does not apply to financial point-to-point transfers within the ERCOT region. This interpretation is consistent with the proposed INT Reliability Standards. Likewise,

Allegheny's views on tagging point-to-point transactions within the PJM market are

consistent with the proposed INT Reliability Standards.

819. With respect to Santa Clara's position that LSEs should be applicable entities under the Reliability Standard, the Commission notes that in situations where a LSE is

securing energy from outside the balancing authority to supply its end-use customers, it

would function as a purchasing-selling entity, as defined in the NERC glossary, and

would be included in the NERC registry on that basis. This interpretation flows from the

language of the Reliability Standards, and the Commission does not perceive any ambiguity in this connection. Nevertheless, the Commission directs the ERO to consider

Santa Clara's comments, and whether some more explicit language would be useful, in

the course of modifying INT-001-2 through the Reliability Standards development process.

820. The Commission accepts NERC's explanation that Requirements R1.1, R3, R4

and R5 of INT-001-0 that were deleted in INT-001-1 are business practices.

NAESB

voluntarily filed "Standards for Business Practices and Communication Protocols for

Public Utilities" in Docket No. RM05-5-000 on November 16, 2006. This filing contains

wholesales electric business practice standards that incorporate e-Tagging requirements

and is the subject of a separate rulemaking process that is expected to result in rules that

will become effective on or about the same time as the Reliability Standard becomes

mandatory.

821. Accordingly, the Commission approves Reliability Standard INT-001-2 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a

modification to INT-001-2 through its Reliability Standards development process that

includes a Requirement that interchange information must be submitted for all point-toDocket

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point transfers entirely within a balancing authority area, including all grandfathered and “non-Order No. 888” transfers.<sup>284</sup>

**c. Regional Difference to INT-001-2 and INT-004-1: WECC Tagging Dynamic Schedules and Inadvertent Payback**

822. NERC proposed a regional difference that would exempt WECC from requirements related to tagging dynamic schedules and inadvertent payback. The Commission noted in the NOPR that WECC is developing a tagging requirement for

dynamic schedules. The Commission requested information from NERC on the status of

the proposed tagging requirement, the time frame for its development, its consistency

with INT-001-1 and INT-004-1 and whether the need for an exemption would cease

when the tagging requirements become effective. The Commission stated that it would

not approve or remand an exemption until NERC submits this information.<sup>285</sup>

Rather, we

stated that we would consider any regional differences contained in a proposed WECC

tagging requirement for dynamic schedules when submitted by NERC for Commission

review.

**i. Comments**

823. APPA agrees with the Commission’s proposed course of action addressing this

regional difference.

824. Xcel requests that the Commission accept the proposed regional difference; tagging requirements for dynamic schedules do not apply now in WECC, and it would be

burdensome and would provide little reliability benefit to apply those requirements to

WECC by June 2007. The Commission therefore should approve the proposed variance

for an interim period until WECC’s tagging requirements for dynamic schedules are

developed and approved.

**ii. Commission Determination**

825. The Commission stressed in Order No. 672 that uniformity of Reliability Standards should be the goal and practice, “the rule rather than the exception.”<sup>286</sup>

The

Commission therefore stated in the NOPR that the absence of a tagging requirement for

284 The Requirement was included in INT-001-0 as Requirement R1.2.

285 To date, the Commission has not received the requested information.

286 Order No. 672 at P 290.

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dynamic schedules in WECC is a matter of concern, and that for this reason it could not

approve or remand this regional difference without the additional information it requested. To date the Commission has not received this information. Of particular importance in this compliance filing will be the ERO's demonstration that this practice is

due to a physical difference in the system or results in a more stringent Reliability Standard. Without this information, we are unable to address Xcel's comments further.

The Commission therefore directs the ERO to submit a filing within 90 days of the date

of this order either withdrawing this regional difference or providing additional information.

**d. Regional Difference to INT-001-2 and INT-003-2: MISO**

**Energy Flow Information**

826. NERC proposed a regional difference that would allow MISO to provide market

flow information in lieu of tagging intra-market flows among its member balancing

authorities; the MISO energy flow information waiver is needed to realize the benefits of

locational marginal pricing within MISO while increasing the level of granularity of

information provided to the NERC TLR Process. The waiver request text states that it is

understood that the level of granularity of information provided to reliability coordinators

must not be reduced or reliability will be negatively affected. The waiver request text

includes a condition specifying that the "Midwest ISO must provide equivalent information to Reliability Authorities as would be extracted from a transaction tag." The

Commission proposed in the NOPR to approve this regional difference. It explained

there that, based on the information provided by NERC, the proposed regional difference

is necessary to accommodate MISO's Commission-approved, multi-control area energy market. Thus, the Commission stated it believed that the regional difference is appropriate, because it is more stringent than the continent-wide Reliability Standard and otherwise satisfies the statutory standard for approval of a Reliability Standard.

**i. Comments**

827. APPA agrees with Commission's proposed course of action in approving this regional difference.

**ii. Commission Determination**

828. The information received by the Commission demonstrates that the proposed regional difference to INT-001-2 and INT-003-2, as filed on November 15, 2006, is

necessary to accommodate MISO's Commission-approved, multi-control area energy

market. The Commission concludes that the regional difference is appropriate, because it

is more stringent than the continent-wide Reliability Standard and otherwise satisfies the

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statutory standard for approval of a Reliability Standard, and therefore approves it as

mandatory and enforceable.

**e. Interchange Transaction Implementation (INT-003-2)**

829. The purpose of INT-003-1 is to ensure that balancing authorities confirm interchange schedules with adjacent balancing authorities before implementing the schedules in their area control error equations. INT-003-1 contains a Requirement that

focuses on ensuring that a sending balancing authority confirms interchange schedules

with its receiving balancing authority before implementing the schedules in its control

area. The proposed Reliability Standard also requires that, for the instances where a high

voltage direct current (HVDC) tie is on the scheduling path, both sending and receiving

balancing authorities have to coordinate with the operator of the HVDC tie.

830. The Commission proposed in the NOPR to approve Reliability Standard INT-003-1 as mandatory and enforceable. In addition the Commission proposed to direct

NERC to submit a modification to INT-003-1 that includes Measures and Levels of Non-

Compliance.

831. NERC filed INT-003-2 with the Commission on November 15, 2006. This Reliability Standard supersedes the Version 1 Reliability Standard INT-003-1 and adds

Measures and Levels of Non-Compliance.

**i. Comments**

832. APPA states that INT-003-2 fulfils the Commission's proposed directive to include Measures and Levels of Non-Compliance.

**ii. Commission Determination**

833. INT-003-1 serves an important purpose in requiring receiving and sending balancing authorities to confirm and agree on interchange schedules. With the addition

of Measures and Levels of Non-Compliance, INT-003-2 addresses the Commission's

only reservation regarding this Reliability Standard. Accordingly, the Commission approves Reliability Standard INT-003-2, as filed with the Commission on November 15,

2006, as mandatory and enforceable.

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**f. Regional Differences to INT-003-2: MISO/SPP Scheduling**

**Agent and MISO Enhanced Scheduling Agent**

834. NERC proposed a regional difference that would provide MISO and SPP with a

variance from INT-003-1 to permit a market participant to use a scheduling agent to

prepare a transaction Tag on its behalf.<sup>287</sup> In addition, NERC proposed the MISO Enhanced Scheduling Agent Waiver, which creates a variance from INT-003-1 for MISO

that permits an enhanced single point of contact scheduling agent.

835. The Commission proposed in the NOPR to approve these two additional regional

differences. The Commission explained that, based on the information provided by NERC, the proposed regional differences for this INT Reliability Standard would provide

administrative efficiency, and provide equal or greater amounts of information to the

appropriate entities as required in MISO's Commission-approved multi-control area

energy market. The NOPR stated that the regional difference is appropriate because it is

more stringent than the continent-wide Reliability Standard and otherwise satisfies the

statutory standard for approval of a Reliability Standard.

**i. Comments**

836. APPA agrees with the Commission's proposed approval of these regional differences.

837. FirstEnergy states that it would be helpful if NERC clarified the function and effect of these waivers. FirstEnergy states that, where a specific task will be performed

by another entity on behalf of the transferor, the transferor entity needs a delegation

agreement, whereas in transferring a responsibility, the transferor entity needs a waiver.

FirstEnergy states that currently balancing authorities are held accountable by regional

reliability organizations for those functions the waivers transfer to the regional reliability

organization. FirstEnergy suggests that NERC should clarify that, under these waivers,

responsibility for complying with these Reliability Standards should be transferred to the

RTOs that actually perform the tasks associated with these requirements.

287 NERC proposed three regional differences for INT-003-1 that would apply to MISO. One proposed regional difference was addressed in Reliability Standard INT-

001-1. The remaining two are discussed here.

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#### **ii. Commission Determination**

838. These two variances from INT-003-2, as filed with the Commission on November

15, 2006, permit a market participant to use a scheduling agent to prepare a transaction

tag on its behalf, providing administrative efficiency and providing equal or greater

amounts of information to the appropriate entities as required in MISO's Commissionapproved

multi-control area energy market. This regional difference is appropriate because it is more stringent than the continent-wide Reliability Standard and otherwise

satisfies the statutory standard for approval of a Reliability Standard. The Commission

therefore approves the MISO/SPP Scheduling Agent Waiver and the MISO Enhanced

Scheduling Agent Waiver as mandatory and enforceable regional differences to INT-003-

2.

839. FirstEnergy may raise its suggestions in the Reliability Standards development process. However, we find that FirstEnergy's suggestion does not affect our decision to approve these two regional differences.

**g. Dynamic Interchange Transaction Modifications (INT-004-1)**

840. INT-004-1 seeks to ensure that dynamic transfers are adequately tagged to be able to determine their reliability impact. It requires the sink balancing authority, i.e., the balancing authority responsible for the area where the load or end-user is located, to communicate any change in the transaction. It also requires the updating of Tags for dynamic schedules.

841. In the NOPR, the Commission proposed to approve Reliability Standard INT-004-1 as mandatory and enforceable. The Commission also proposed to direct NERC to submit a modification to INT-004-1 that includes Levels of Non-Compliance.

**i. Comments**

842. APPA agrees with the Commission that INT-004-1 can be approved as a mandatory and enforceable Reliability Standard. However, it suggests that the missing Levels of Non-Compliance should be developed and submitted for Commission approval before penalties are levied for violations.

**ii. Commission Determination**

843. As explained in the NOPR, while the Commission has identified concerns with regard to INT-004-1, this proposed Reliability Standard serves an important purpose by setting thresholds on changes in dynamic schedules for which modified interchange data must be submitted. Further, the Requirements set forth in INT-004-1 are sufficiently clear and objective to provide guidance for compliance. Accordingly, the Commission approves Reliability Standard INT-004-1 as mandatory and enforceable. In addition, the

Commission directs the ERO to consider adding these Measures and Levels of Non-Compliance to the Reliability Standard.

**h. Interchange Authority Distributes Arranged Interchange (INT-005-1)**

844. INT-005-1 seeks to ensure the implementation of interchange between source and

sink balancing authorities and that interchange information is distributed by an interchange authority to the relevant entities for reliability assessments.

845. The Commission proposed in the NOPR to approve Reliability Standard INT-005-

1 as mandatory and enforceable. The Commission also proposed to direct NERC to

submit a modification to INT-005-1 that includes Levels of Non-Compliance.

Further,

the Commission noted that INT-005-1 is applicable to the “interchange authority” and

requested that NERC provide additional information regarding the role of the interchange

authority so that the Commission can determine whether it is a user, owner or operator of

the Bulk-Power System that is required to comply with mandatory Reliability Standards.

**i. Comments**

846. Comments on the interchange authority have been discussed above under the heading “INT Reliability Standards General Issues.” No other comments on INT-005-1

have been submitted.

**ii. Commission Determination**

847. The Commission has set forth above its analysis and conclusion on interchange

authorities. Our understanding is that, in the interim, source and sink balancing authorities will serve as interchange authorities until the ERO has clarified the role and

responsibility of an interchange authority in the modification of the Functional Model and

in the registration process.

848. The Commission is satisfied that the Requirements of INT-005-1 are appropriate

to ensure that interchange information is distributed timely and available for reliability

assessment. Accordingly, the Commission approves Reliability Standard INT-005-1 as

mandatory and enforceable. In addition, the Commission directs the ERO to consider adding additional Measures and Levels of Non-Compliance to the Reliability Standard.

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**i. Response to Interchange Authority (INT-006-1)**

849. INT-006-1 applies to balancing authorities and transmission service providers, and requires these entities to evaluate the energy profile and ramp rate of generation that supports interchange transactions in response to a request from an interchange authority to change the status of an interchange from an arranged interchange transaction to a confirmed interchange.

850. The Commission proposed in the NOPR to approve Reliability Standard INT-006-

1 as mandatory and enforceable. In addition, the Commission proposed to direct NERC

to submit a modification to INT-006-1 that: (1) makes it applicable to reliability coordinators and transmission operators and (2) requires reliability coordinators and

transmission operators to review composite transactions from the wide-area reliability

viewpoint and, where their review indicates a potential detrimental reliability impact,

communicate to the sink balancing authorities necessary transaction modifications before implementation.

**i. Comments**

851. APPA agrees that INT-006-1 is sufficient for approval as a mandatory and enforceable reliability standard. However, APPA states that the Commission should

merely instruct NERC to respond to the Commission's concerns and refrain from directing NERC to make specific changes to the Reliability Standard; APPA states that

while the changes the Commission proposes may be appropriate, it should be left to

NERC's expertise and the Reliability Standards development process to address the

Commission's concerns.

852. FirstEnergy agrees that it is appropriate for the reliability coordinator to be

included in the applicability section. However, it argues that it is impracticable in large organized markets, such as those of MISO and PJM, for a local entity, such as a transmission operator, to review wide-area transactions, and it does not improve reliability to do so. Transactions occurring totally within the market operation are provided as part of network service net scheduled interchange.

853. EEI states that the “wide-area reliability impact” review envisioned by the Commission, which involves review of the composite energy interchange transactions, probably already takes place under Reliability Standards INT-005 through INT-009 in a cost-effective manner. EEI explains that since most transactions submitted by wholesale markets to the transactions tagging process span multiple hours with varying sizes (in MW), and are often submitted days before transaction start times, the wide-area review consists of ensuring that sufficient generator ramping capability exists, as well as examining for limits on transfer capabilities. This review is generally considered Docket No. RM06-16-000 - 238 - sufficient to the extent that analyses are taking place on the basis of projected system conditions. EEI suggests that the Commission-proposed review and validation of composite energy interchange transactions by reliability coordinators might be more effectively addressed through “near real-time” system review. It explains that, at this time, the broad range of system condition parameters is better known, and the reliability coordinators can make use of the TLR process to maintain system reliability.

854. Entergy disagrees with the Commission’s proposed modifications. It contends that they will require substantial changes to the tagging specifications. Entergy believes that the Commission’s concerns may already be addressed by Reliability Standards INT-005 through INT-009.

855. MISO believes the Reliability Standards and e-Tag specifications already require reliability entities to evaluate and approve e-Tags. It questions the value of specifying reliability coordinators and transmission operators as applicable entities because their

responsibilities are already laid out in the Reliability Standards.

856. Northern Indiana contends that the NOPR's discussion of INT-006-1 is unclear and confusing. It states that it does not understand what the Commission means by "validate" when the Commission proposes that reliability coordinators and transmission operators review and validate composite arranged interchanges. Northern Indiana also questions whether both reliability coordinators and transmission operators would be required to validate and approve the Tags and what the basis for approval would be. It questions what falls within the term "potential detrimental reliability impact," what happens if a Tag is not validated within 20 minutes to the hour, and whether all schedules are canceled outright or passively approved.

857. TVA suggests that the term "composite Tag" should be defined as part of the proposed modifications. CAISO also questions the meaning of "composite Tag" and seeks clarification on that issue. TVA notes that depending on the type of reliability analysis required to validate a "composite Tag," it may prove impractical to conduct this evaluation for hourly transactions.

858. CAISO states that neither NERC nor the Commission has identified a deficiency in the current interchange reliability assessment process or a pressing reliability need for this Reliability Standard. CAISO also has concerns about meeting the Commission proposed directives regarding INT-006-1 since reliability coordinators and transmission operators within the Western Interconnection currently do not have a common database from which to draw the information needed to review composite transactions from a wide-area reliability viewpoint. CAISO requests the Commission to consider whether the Western Interconnection should comply with these proposed Requirements at all or whether a transition period is appropriate.

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**ii. Commission Determination**

859. The Commission approves INT-006-1 as mandatory and enforceable. In addition, we direct that NERC develop modifications to the Reliability Standard, as discussed below.

860. The Commission remains convinced that a proactive approach is superior to a reactive approach in maintaining system reliability. While EEI and Entergy claim that

reliability coordinators and transmission operators' involvement in reliability reviews of interchange transactions are covered in INT-005 through INT-010, and MISO claims that

such review is covered in other Reliability Standards, we note the following:

References

to reliability coordinator and transmission operator involvement are virtually absent from

the INT Reliability Standards. One finds such references only in Requirement R2 of

INT-010, which deals with interchange coordination exemptions, and there the involvement of reliability coordinators is restricted to situations that involve current or

imminent reliability-related reasons for action. We cannot find any Requirements in the

remaining INT Reliability Standards that require a wide-area reliability assessment,

regardless of the time periods, by a reliability coordinator; wide-area reliability assessment, moreover, can only be carried out by reliability coordinators.

861. With respect to MISO's comment on the value of applying the Reliability Standard to reliability coordinators and transmission operators given that the Reliability

Standards and the e-Tag specification already require evaluation and active approval of

reliability entities on e-Tags, we note that none of the INT Reliability Standards have

those requirements and that the e-Tag specification is not part of the mandatory Reliability Standards. Like reliability coordinators who are responsible for reliable operation of entire reliability coordinator areas, a transmission operator is the reliability

entity responsible for its local area operations. Interchange transactions would be likely

to reduce system reliability if those transactions are not reviewed and approved by the

appropriate reliability entities before implementation.

862. With respect to the question raised by TVA and CAISO on the definition of “composite Tags,” we expressed our reliability concerns in the NOPR and explained that reliability coordinators and transmission operators should review composite energy interchange transaction information (composite Tags) for wide-area reliability impact. In addition, we stated that when the review indicated a potential detrimental reliability impact, the reliability coordinator or transmission operator should communicate to the sink balancing authority the necessary transaction modifications before Docket No. RM06-16-000 - 240 - implementation.<sup>288</sup> While we did not require a specific notification time prior to actual transactions, this proactive approach should promote system reliability.

863. We agree with FirstEnergy that it is appropriate to include reliability coordinators as applicable entities for purposes of conducting wide-area reliability assessments; in large organized markets transmission operators may not be appropriate for this purpose because they do not have a wide-area view.

864. While we did not address review time frames in the NOPR, we are in general agreement with EEI’s suggestion that “near-real time” system review by reliability coordinators may be more practical, while still being efficient and effective in achieving reliability goals. A proactive approach, i.e. one that involves reliability coordinators in a way that permits them to make wide-area assessments of composite interchange transactions for purposes of evaluating reliability impact, including identifying potential IROL violations and mitigating them using TLR procedures before they become actual IROL violations, is far superior to a reactive approach, i.e., one that brings reliability coordinators in after the fact to invoke TLR procedures to avoid an IROL violation or other operating actions to extricate the system from reliability problems such as an actual IROL violation.

865. The Commission stated in Order No. 672 that it expected entities to use the

Reliability Standards development process to address their concerns about a Reliability Standard. With respect to CAISO's request that the Commission consider whether the Western Interconnection needs to comply with these Requirements at all or whether a transition period is appropriate, since CAISO did not raise either concern in the Reliability Standards development process, and others in the Western Interconnection have not raised a similar concern, CAISO should raise this issue in the Reliability Standards development process in the first instance. Reliability Standard INT-006-1 will apply to CAISO.

866. Accordingly, the Commission approves Reliability Standard INT-006-1 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to INT-006-1 through the Reliability Standards development process that:

- (1) makes it applicable to reliability coordinators and transmission operators and
- (2)

requires reliability coordinators and transmission operators to review energy interchange transactions from the wide-area and local area reliability viewpoints respectively and, where their review indicates a potential detrimental reliability impact, communicate to the sink balancing authorities necessary transaction modifications before implementation.

288 NOPR at P 219.

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We also direct that the ERO consider the suggestions made by EEI and TVA and address the questions raised by Entergy and Northern Indiana in the course of the Reliability Standards development process.

**j. Interchange Confirmation (INT-007-1)**

867. Reliability Standard INT-007-1 requires that before changing the status of submitted arranged interchanges to confirmed interchanges, the interchange authority must verify that the submitted arranged interchanges are valid and complete with relevant information and approvals from the balancing authorities and transmission service

providers. The Commission proposed in the NOPR to approve INT-007-1 as mandatory and enforceable.

**i. Comments**

868. APPA agrees with the Commission that INT-007-1 is sufficient for approval as a mandatory and enforceable Reliability Standard, subject to NERC's plans for the registration of entities as interchange authorities.

**ii. Commission Determination**

869. The Commission approves Reliability Standard INT-007-1 as mandatory and enforceable. The Commission has set forth above its analysis and conclusion on interchange authorities. Our understanding is that in the interim source and sink balancing authorities will serve as interchange authorities until the ERO has clarified the

role and responsibility of an interchange authority in the modification of Functional

Model and in the registration process.

**k. Interchange Authority Distribution of Information (INT-008-1)**

870. INT-008-1 requires the interchange authority to distribute information to all balancing authorities, transmission service providers and purchasing-selling entities

involved in the arranged interchange when the status of the transaction has changed from

arranged interchange to confirmed interchange. The Commission proposed in the NOPR

to approve INT-008-1 as mandatory and enforceable.

**i. Comments**

871. APPA agrees with the Commission that INT-008-1 is sufficient for approval as a mandatory and enforceable Reliability Standard, subject to NERC's plans for the registration of entities as interchange authorities. It suggests that NERC should clarify

which reliability entities have the responsibility for ensuring that interchange information

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is coordinated between the source and sink balancing authorities before implementing the

Reliability Standard. APPA also states that NERC should modify this Reliability Standard to make clear what entities it in fact would apply to.

**ii. Commission Determination**

872. The Commission approves Reliability Standard INT-008-1 as mandatory and enforceable. The Commission has set forth above its analysis and conclusion on

interchange authorities. Our understanding is that a source and sink balancing authority will serve as the interchange authority until the ERO has clarified the role and responsibility of an interchange authority in the modification of the Functional Model and in the registration process. Finally, we direct the ERO to consider APPA's suggestions in the Reliability Standards development process.

**l. Implementation of Interchange (INT-009-1)**

873. Reliability Standard INT-009-1 seeks to ensure that the implementation of an interchange between source and sink balancing authorities is coordinated by an interchange authority. The Commission proposed in the NOPR to approve INT-009-1 as mandatory and enforceable.

**i. Comments**

874. APPA agrees with the Commission that INT-009-1 is sufficient for approval as a mandatory and enforceable Reliability Standard, subject to NERC's plans for the registration of entities as interchange authorities. It suggests that NERC modify its Functional Model to clarify which reliability entities have the responsibility for ensuring proper implementation of interchange transactions that have received reliability assessments. APPA also suggests that NERC modify this Reliability Standard to make clear what entities it in fact would apply to.

**ii. Commission Determination**

875. The Commission approves Reliability Standard INT-009-1 as mandatory and enforceable. The Commission has set forth above its analysis and conclusion on interchange authorities. Our understanding is that a source and sink balancing authority will serve as the interchange authority until the ERO has clarified the role and responsibility of an interchange authority in the modification of the Functional Model and in the registration process. Finally, we direct the ERO to consider APPA's suggestions concerning this Reliability Standard in the Reliability Standards development process.

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**m. Interchange Exemptions (INT-010-1)**

876. INT-010-1 allows reliability entities to initiate or modify certain types of interchange schedules under abnormal operating conditions and to be exempt from compliance with other INT Reliability Standards.

877. The Commission explained in the NOPR that Reliability Standard INT-010-1

includes provisions that allow modification to an existing interchange schedule or submission of a new interchange schedule that is directed by a reliability coordinator to address current or imminent reliability-related reasons. The Commission interpreted these current or imminent reliability-related reasons as not including actual IROL violations, since they require immediate action so that the system can be returned to a secure operating state as soon as possible and no longer than 30 minutes after a reliability-related system interruption – a period that is much shorter than the time that is expected to be required for new or modified transactions to be implemented.

878. The Commission proposed to approve INT-010-1, interpreted as set forth above, as mandatory and enforceable.

**i. Comments**

879. Northern Indiana supports the Commission’s interpretation of INT-010-1, but it requests that the Reliability Standard be modified to explicitly state that it does not include actual IROL violations.

880. ISO-NE supports Commission approval of INT-010-1, but does not share the Commission’s concerns regarding the initiation or modification of interchange schedules to address SOL or IROL violations. It states that interchange schedules can in certain circumstances provide an additional effective tool to help prevent an SOL and IROL violation. While ISO-NE recognizes that other tools may in certain circumstances be more effective, it states that this neither diminishes the value nor precludes the use of the tools contained in INT-010-1. ISO-NE also notes that section 2.4 of INT-010-1, which describes Level 4 Non-Compliance, should be edited to state that “[t]here shall be a level four non-compliance. . . .” instead of “[t]here shall be a level three non-compliance. . . .”

881. APPA agrees with the Commission that INT-010-1 is sufficient for approval as a mandatory and enforceable Reliability Standard, but APPA does not agree with the Commission’s interpretation of the Reliability Standard. APPA explains that the stated

purpose of INT-010-1 is to allow certain types of interchange schedules to be initiated or modified by reliability entities and to be exempt from compliance with other interchange standards under abnormal operating conditions. This Reliability Standard in effect authorizes reliability coordinators to direct, and balancing authorities to take, remedial actions to adjust interchange schedules immediately and then document these actions after the fact. INT-010-1 thus provides the emergency waiver from other INT Reliability Standards that makes adjusting interchange schedules the appropriate response to a SOL or IROL. APPA states that the Commission's proposed interpretation therefore should not be adopted.

882. EEI cautions against adopting the Commission's interpretation of INT-010-1. EEI believes that the existing standard meets the Commission's expectation, i.e., permitting and encouraging immediate action to alleviate an SOL or IROL. EEI explains that without INT-010-1, all interchange scheduling and schedule modifications would go through the normal process contained in INT-005 through INT-009. Only INT-010 would allow a balancing authority to make an immediate interchange action without obtaining a Tag. Within 60 minutes of the action, the balancing authority would follow up with the necessary documentation and carry forward the action, if necessary. In the absence of INT-010-1, a balancing authority taking such action would be in violation of INT-009 for failing to comply with the normal process requirements.

883. EEI notes by way of example that, to relieve an SOL or IROL, a reliability coordinator requires immediate offsetting changes in the net scheduled interchange of ACE equations of source and sink balancing authorities. Within 60 minutes following the action, the reliability authority directs the balancing authority to reflect the schedule change event using an arranged interchange. The tagging activity ensures coordination

going forward and provides a written record. All of this takes place after the operational tasks pertaining to the action to alleviate the SOL or IROL, consistent with Commission expectations.

**ii. Commission Determination**

884. For the reasons and interpretation noted in the NOPR, the Commission approves INT-010-1 as mandatory and enforceable.

885. The Commission believes that our interpretation of INT-010-1 is consistent with

the way APPA and EEI understand the Reliability Standards. The Commission believes

that making a modification to an existing interchange schedule on paper for current or

imminent reliability-related situations involving actual IROL violations is ineffective

because its implementation usually takes much longer than the 30 minutes period that is

allowed in the relevant IRO or TOP Reliability Standards. However, the Commission

interprets INT-010-1 as allowing the actual physical transaction to be modified to alleviate an IROL event without first documenting the modification. The interchange

schedule would then be modified after the fact to document the physical actions taken.

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886. With regard to ISO-NE's statement that interchange schedules can, in certain circumstances, provide an additional effective tool to help prevent SOL and IROL violations while other tools may, in certain circumstances, be more effective, the Commission clarifies that our concern is related to using interchange schedules to address

actual IROL violations. We have no concern in using this as a tool help prevent potential

SOL and IROL violations as asserted by ISO-NE. We further note that the phrase in

Requirements R2 and R3 "current or imminent reliability-related reasons" can be interpreted as potential or actual IROL violations set forth in the comments from Northern Indiana, ISO-NE, APPA and EEI, and therefore modifications to INT-010-1 are needed.

887. Accordingly, the Commission approves Reliability Standard INT-010-1 as mandatory and enforceable. In addition, we adopt the interpretation set forth in the

NOPR that these current or imminent reliability-related reasons do not include actual IROL violations, since they require immediate control actions so that the system can be returned to a secure operating state as soon as possible and no longer than 30 minutes after a reliability-related system interruption – a period that is much shorter than the time that is expected to be required for new or modified transactions to be implemented. Finally, we direct the ERO to consider Northern Indiana and ISO-NE's suggestions in the Reliability Standards development process.

**Reliability Standards Development Plan: 2007 – 2009**  
**November 30, 2006**

**“INT” Standards Extract**

**2009-03 Interchange Information**

**Standards Involved:**

- INT-001 — Interchange Transaction Tagging
- INT-003 — Interchange Transaction Implementation
- INT-004 — Interchange Transaction Modifications
- INT-005 — Interchange Authority Distributes Arranged Interchange
- INT-006 — Response to Interchange Authority
- INT-007 — Interchange Confirmation
- INT-008 — Interchange Authority Distributes Status
- INT-009 — Implementation of Interchange
- INT-010 — Interchange Coordination Exemptions

**Research Needed:**

None

**Purpose/Industry Need (for SAR):**

The purpose of revising these standards is to:

1. Provide an adequate level of reliability for the North American bulk power systems - the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure they are enforceable as mandatory reliability standards with financial penalties - the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders, as noted in the attached review sheets.
5. Satisfy the standards procedure requirement for five-year review of the standards.

## 2009-03 Interchange Information

### **Industry Need (for SAR):**

INT-001, INT-003 and INT-004 are Version 0 standards that received only minor modifications when INT-005 through INT-010 were developed. As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. The Version 0 standards, while a good foundation, were translated from historical operating and planning policies and guides that were appropriate in an era of voluntary compliance. The Version 0 standards and recent updates were put in place as a temporary starting point to stand up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update the standards in a timely manner, incorporating improvements to make the standards more suitable for enforcement and to capture prior recommendations that were deferred during the Version 0 translation.

### **Brief Description (for SAR):**

Most of these are new standards that were approved in 2006. In 2007 and 2008, the standards staff will collect feedback on the strengths and weaknesses of this set of standards from the Operating and Planning Committees and from compliance personnel. The data collected will be used to determine the scope of this project. The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

## 2009-03 Interchange Information

### Standard Review Form Project 2009-03 Interchange Information

#### Standard # INT-001-1 Comments

**Title** Interchange  
Information  
Okay

**Purpose** What is the reliability analysis service?  
Need benefit or value proposition.

**Applicability** Okay

**Requirements** *Conditions* Okay  
*Who?* WECC & MISO regional differences noted but not in text.  
*Shall do what?* R1 & 2 – define ensure  
*Result or Outcome* Missing

**Measures** Addressed by Compliance Elements Standard  
Drafting Team

#### **To Do List** FERC NOPR

- o Include Measures and Levels of Non-Compliance; and
  - o Include a Requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area, including all grandfathered and “non-Order No. 888” transfers. FERC staff report
  - o Measure insufficient and non-compliance lacking
  - o Expecting new standard in November
- V0 Industry Comments
- o R1 - Too stringent
  - o R1 – Who tags dynamic schedules?
  - o Load PSE responsibility is new restriction
  - o Clarify tagging of reserves
  - o R2.2 – 60 minute time frame questioned
  - o Question on generation scheduling
  - o Onerous to BA’s
  - o More commercial problem than reliability
  - o Lack of compliance
- VRF comments
- o R1, 1.1, 2, 2.1, 2.2 – commercial and administrative

**Misc. Items** Compliance not specified.

## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

#### Standard # INT-003-1 Comments

**Title** Interchange  
Transaction  
Implementation  
Okay

**Purpose** Need benefit or value proposition.  
Don't need names.

**Applicability** Okay

**Requirements** *Conditions* Okay  
*Who?* MISO differences cited but not in text.  
*Shall do what?* Okay  
*Result or Outcome* Okay

**Measures** Addressed by Compliance Elements Standard  
Drafting Team.

**To Do List** FERC NOPR  
o Include Measures and Levels of Non-Compliance  
FERC staff report  
o Lack of Measures and Compliance  
o Expecting new standard in November  
VRF Comments  
o R1, 1.1, 1.1.2, 1.2 – commercial and administrative

**Misc. Items** Compliance not specified but does appear in  
Compliance Elements Standard Drafting Team  
version.

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## 2009-03 Interchange Information

### Standard Review Form

## Project 2009-03 Interchange Information

### Standard # INT-004-1 Comments

**Title** Dynamic  
Interchange  
Transaction  
Modifications  
Okay

**Purpose** Okay

**Applicability** Need to check applicability for LSE & GOP as per SAR.

**Requirements** *Conditions* Okay

*Who?* WECC regional difference cited but not in text.

*Shall do what?* R1 is about reloading the transaction.

*Result or Outcome* Missing

**Measures** Only present for R2.  
Need to define evidence.

**To Do List** FERC NOPR

- o Include Measures and Levels of Non-Compliance

FERC staff report

- o Should include GO & LSE

- o Lack of Measures and Non-Compliance

- o Timing considerations

V0 Industry Comments

- o Replace TSP with TOP

- o Need to address tag curtailment

- o Suggested non-compliance levels

- o Non-compliance based on %

- o Use WECC criteria

VRF comments

- o R2, 2.2, 2.3 – commercial and administrative

**Misc. Items** Non-compliance not specified.

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## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

#### Standard # INT-005-1 Comments

**Title** Interchange  
Authority Distributes  
Arranged  
Interchange  
Okay

**Purpose** Okay

**Applicability** Okay

**Requirements** *Conditions* Okay  
*Who?* Okay  
*Shall do what?* Okay  
*Result or Outcome* Missing

**Measures** Define evidence - should include confirmation of receipt.

**To Do List** FERC NOPR  
o Include Measures and Levels of Non-Compliance  
FERC staff report  
o Not reviewed  
VRF comment  
o R5 – administrative

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## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

#### Standard # INT-006-1 Comments

**Title** Response to  
Interchange  
Authority  
Okay

**Purpose** Title & Purpose don't align.

**Applicability** Okay

**Requirements** *Conditions* Okay  
*Who?* Okay  
*Shall do what?* Okay  
*Result or Outcome* Missing

**Measures** Measure does not address the sub-bullets and evidence must be defined.

#### **To Do List** FERC NOPR

- o Make it applicable to reliability coordinators and transmission operators; and
- o Require reliability coordinators and transmission operators to review composite transactions from the wide-area reliability viewpoint and, where their review indicates a potential detrimental reliability impact communicate to the sink balancing authorities necessary transaction modifications prior to implementation.

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## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

#### Standard # INT-007-1 Comments

**Title** Interchange  
Confirmation

There is nothing about confirmation in the text.

**Purpose** Same purpose statement as INT-006-1 – doesn't fit here.

**Applicability** Okay

**Requirements** *Conditions* Okay

*Who?* Okay

*Shall do what?* Okay

*Result or Outcome* Missing

**Measures** Measure only addresses verification of the data.  
Also need to define evidence.

**To Do List** FERC NOPR

o No changes identified.

VRF comment

o R1, 1.1, 1.3, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4 – administrative

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## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

#### Standard # INT-008-1 Comments

**Title** Interchange  
Authority Distributes  
Status  
Status of what?

**Purpose** Purpose is about coordination, not just distribution.  
Need benefit or value proposition.

**Applicability** Missing BA, TSP, PSE & RRO.

**Requirements** *Conditions* Okay  
*Who?* Okay  
*Shall do what?* Okay  
*Result or Outcome* Missing

**Measures** M1 - Need to define evidence - should include wording on receipt of message; 2<sup>nd</sup> sentence is a requirement.  
M1.1 – define evidence.

**To Do List** FERC NOPR  
o No changes identified.  
VRF comments  
o R1.1.1 & 1.1.2 – commercial and administrative

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## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

#### Standard # INT-009-1 Comments

**Title** Implementation of  
Interchange  
Okay

**Purpose** Need benefit or value proposition.  
Don't need names.

**Applicability** Okay

**Requirements** *Conditions* Okay  
*Who?* Okay  
*Shall do what?* Okay  
*Result or Outcome* Missing

**Measures** M2 & M3 should be sub-bullets of M1.  
Define demonstrate.

**To Do List** FERC NOPR  
o No changes identified.

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## 2009-03 Interchange Information

### Standard Review Form

#### Project 2009-03 Interchange Information

##### Standard # INT-010-1 Comments

Title Interchange

Coordination

Exemptions

Okay

Purpose Need benefit or value proposition.

Applicability Okay

Requirements *Conditions* Okay

*Who?* Okay

*Shall do what?* Okay

*Result or Outcome* Missing

Measures Define evidence.

To Do List FERC NOPR

o No changes identified.

VRF comments

o R1 & 3 – administrative

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NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Interchange Subcommittee Meeting

Wednesday, November 14, 2007 — 8 a.m.–5 p.m.  
Thursday, November 15, 2007 — 8 a.m.–noon

Doubletree Hotel San Francisco Airport  
835 Airport Blvd.  
San Francisco, California  
Phone: (650) 344-5500

### Attendance

<u>Name of Participant</u>	<u>Organization</u>	<u>#of Room Nights</u>
Don Lacen, Chair	PNM/WECC SIAS	2
Joe Gardner	Midwest ISO	0*
Cheryl Mendrala	ISO-NE	0*
Jim Hansen	Seattle City Light	0*
Pat Doran	Ontario IESO	2
Shane Jenson	Omaha Public Power District	2
Jeremy West	Entergy	0*
Larry Goins	TVA	3
John Ciza	Southern Co – Generation	3
Tom Vandervort	NERC	3
Bob Winn	OATTI	0*
Andy Tritch	Sungard	3

\* Hotel did not have rooms available for reservations.



NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

**Interchange Subcommittee  
November 14-15, 2007 Meeting  
Open Action Item List**

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
Don Lacen	Interchange Authority Definition	<p>050207, The subcommittee will seek clarification from the Functional Model Working Group and request the FMWG to post a clear and unambiguous “Interchange Authority” description, specific responsibilities, and a determination whether the interchange authority is an entity or a function</p> <p>090407, TV sent e-mail requesting FMWG to address the above action item during their conference call on Wednesday, Sep 5.</p> <p>091007, NERC will begin registering entities as Interchange Authorities. Look for a formal letter from Craig Lawrence, NERC Manager of Registration and Certification.</p> <p>111407, When registration begins, this action item will be closed.</p>	021208	
Don Lacen	2008 IS Goals	111507, Don Lacen and the IS will develop 2008 IS Goals and Objectives.	021208	
Don Lacen	2007 IS Goals	<p>010107, Don Lacen reviewed the IS goals for the remainder of 2007 and asked that this be a posted, and updated as necessary, on the IS website. The goals for 2007 are:</p> <p>a. Changes to IDC to use dynamic data rather than the tag</p> <ul style="list-style-type: none"> <li>• Submit a letter to the IDCWG to make the appropriate changes               <ul style="list-style-type: none"> <li>• ICCP or SDX</li> <li>• Letter sent to the ORS in May, 2007</li> <li>• IDCWG meeting in Oct, 2007 will generate a response</li> </ul> </li> </ul> <p>b. JISWG to issue a SAR to relax approval times for ATF issues for INT and</p>	<p>a. 123107</p> <p>b. 033007</p> <p>c. 033007</p>	<p>a.</p> <p>b. 033007</p> <p>c. 033007</p>

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<p>Coordinate</p> <p>c. Interchange standards. Need timing table for both standards.</p> <p>d. Dynamic Schedule pro-rata curtailments</p> <ul style="list-style-type: none"> <li>• Changing the tag does not affect dynamic schedule <ul style="list-style-type: none"> <li>• Currently need to get two BAs to agree to a change on the meter value</li> <li>• What needs to be done to fix this situation? <ul style="list-style-type: none"> <li>a. No longer an issue for the IS</li> </ul> </li> </ul> </li> <li>• Items in the Dynamic Schedule Reference Document may need to be transferred into a standard <ul style="list-style-type: none"> <li>• Tag adjust may not be sufficient</li> </ul> </li> <li>• Maintaining the dynamic transfer survey <ul style="list-style-type: none"> <li>• Review results and send data to Resources Subcommittee</li> </ul> </li> <li>• Updating dynamic schedule catalog <ul style="list-style-type: none"> <li>• What to do with future planned dynamic schedules</li> <li>• What to do with registry</li> </ul> </li> <li>• Dynamic schedule action items <ul style="list-style-type: none"> <li>• Complete review of the catalog <ul style="list-style-type: none"> <li>a. West – Lonnie and Don</li> <li>b. East – Mike, Pat and Melinda</li> </ul> </li> <li>• Develop action plan</li> </ul> </li> </ul> <p>e. Continue work on E-tag 1.8 implementation plan (December 4<sup>th</sup>)</p> <ul style="list-style-type: none"> <li>• Vendor Interoperability Testing <ul style="list-style-type: none"> <li>• Aug 7 &amp; 9, 2007 - complete</li> <li>• Aug 13 &amp; 15, 2007 - complete</li> </ul> </li> <li>• User training <ul style="list-style-type: none"> <li>• Sep 7, 2007 - complete</li> <li>• Sep 11, 2007 - complete</li> <li>• Sep 25, 2007 - complete</li> </ul> </li> </ul> <p>f. Getting more market participants to attend IS meetings</p> <p>g. Draft site acceptance test plan for e-Tag 1.8</p>	<p>d. 123107</p> <p>e. 120507</p> <p>f. 123107 g. 091907</p>	<p>d.</p> <p>e.</p> <p>f. g. 090107</p>
Jim Hansen and Bob	E-Tag version 1.8	032307, The Interchange Subcommittee will implement the E-Tag, version 1.8 implementation plan:	120407	

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
Harshbarger		Notes: 1) The dates are tentative and subject to change, depending on obstacles encountered during the implementation of the project plan. 2) Additional meetings, conference calls/webcasts, workshops may be scheduled to support the project plan.  092007, Implementation plan is complete and posted on NERC and NAESB websites. This item will continue to be shown until e-Tag 1.8 is implemented, tentatively on Dec 4, 2007		
		E-Tag, version 1.8 implementation plan:  E-Tag 1.8 Project Implementation Plan posted for 30 day comment period (March 20 – April 20, 2007)	032007	032007
		E-Tag, version 1.8 implementation plan:  Develop and Post Responses to Industry Comments on NERC and NAESB web sites (IS and JISWG Generate Responses and Incorporate Changes to the Final Plan)	050307	051007
		E-Tag, version 1.8 implementation plan:  E-Tag, version 1.8 Vendor Development (May 3 – August 5, 2007)  081507, Vendor Interoperability Testing complete	080507	081507
		E-Tag, version 1.8 implementation plan:  IS and JISWG to Create Industry Tutorial / Q&A / Information Sharing Coordinated Webcasts  083007, JISWG prepared Tutorial presentation for upcoming webcast/conf call	082507	083007
		E-Tag, version 1.8 implementation plan:  Interoperability Vendor Testing, August 5 – September 5, 2007 <ul style="list-style-type: none"> <li>• NERC / NAESB Facilitation</li> <li>• Set-up Interoperability Examples</li> <li>• Draft site acceptance test plan</li> </ul>	090507	081507

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
		<ul style="list-style-type: none"> <li>• Etc.</li> </ul> <p>Details to be worked out</p> <p>081507, Vendor Interoperability Testing complete on Aug 7 &amp; 9; and Aug 13 &amp; 15.</p>		
		<p>E-Tag, version 1.8 implementation plan:</p> <p>Industry Training / User testing / Workshops (tentatively schedule 4 workshops) / (September 5 – November 2, 2007)</p> <p>080707, e-Tag 1.8 Tutorial webcasts / conference calls schedule:</p> <ul style="list-style-type: none"> <li>• Friday, Sep 7, 2007</li> <li>• Tuesday, Sep 11, 2007</li> <li>• Tuesday, Sep 25, 2007</li> </ul>	092507	092507
Mike Oatts	IDC Real-time Data Updates	<p>021507, Mike Oatts to discuss with someone on the IDCWG regarding what can IDC (IDCWG) do related to real-time data updates.</p> <p>092007, Cheryl Mendrala (proxy for John Simonelli) reported that a letter from the IDCWG (Cheryl is a member of the IDCWG) to the ORS and IS regarding incorporation of dynamic schedule information into the IDC will be finalized during the Oct, 2007 IDCWG meeting.</p> <p>111507, The IDCWG considered the concept to be feasible but does not see value in the incorporating dynamic schedule information into the IDC. The IS accepted the IDCWG explanation and at this time will not pursue the possible inclusion of dynamic schedule information into the IDC.</p>	111507	111507
Interchange Subcommittee	INT-006 Revision	<p>050307, Tom V to contact NERC Standards Group to determine if the standards group or the Interchange Subcommittee will take the initiative to revise INT-006 (Reliability Coordinator and Transmission Operator to review energy interchange transactions from wide-area viewpoints) to satisfy FERC Order 693.</p> <p>092007, IS to determine if NERC Standards Work Plan is adequate to revise INT-006 in 2009; or if a revision is needed sooner. Evaluation and decision to be made during the Nov, 2007 IS meeting.</p> <p>111507, By unanimous consent, the IS decided to defer any action to address NERC INT standards, including the FERC directives on the INT-001 and INT-006 standards, to the NERC Standards 3 Year Plan.</p>	111507	111507
Interchange	INT-001 Revision	<p>050307, Tom V to contact NERC Standards Group to determine if the standards group or the Interchange Subcommittee will take the initiative to revise INT-001 (e-</p>	111507	111507

Action Figure	Subject	Action Item/Assignment	Due Date	Completion Date
Subcommittee		<p>tag revision that is associated with the Order) to satisfy FERC Order 693.</p> <p>092007, IS to determine if NERC Standards Work Plan is adequate to revise INT-001 in 2009; or if a revision is needed sooner. Evaluation and decision to be made during the Nov, 2007 IS meeting.</p> <p>111507, By unanimous consent, the IS decided to defer any action to address NERC INT standards, including the FERC directives on the INT-001 and INT-006 standards, to the NERC Standards 3 Year Plan.</p>		
Interchange Subcommittee	INT Standards Revisions	<p>050307, Tom V to check with the Standards Group to see who will revise the "INT" standards to address the FERC Order 693 for INT standards, address the NERC 3 Year Work Plan, bring the standards up to the NERC Standards Process criteria, and to work with NAESB to ensure the requirements are complementary to each other.</p> <p>092007, IS will review INT standards and determine if they are adequate to wait for the NERC Standards 3 Year Work Plan (INT Standards are scheduled to be reviewed, and revised as necessary in 2009).</p> <p>111507, By unanimous consent, the IS decided to defer any action to address NERC INT standards, including the FERC directives on the INT-001 and INT-006 standards, to the NERC Standards 3 Year Plan.</p>	111507	111507
Tom Vandervort	Create a link to IS work plan on NERC IS website	<p>050207, Tom V to create a link on the NERC IS website to display the IS 2008 Work Plan.</p> <p>091907, When 2008 IS Scope and/or Work Plan is developed, NERC IT will post on the NERC IS website.</p>	021208	
Tom Vandervort	IS Membership	111507, Tom V to contact ERCOT and FRCC to attain nominations for IS roster.	021208	
Tom Vandervort	IS Scope	111507, Tom V to incorporate the IS approved Scope to the NERC IS website.	021208	
Jeremy West and EIITTF	Eastern Interconnection Interchange Tool Task Force	111507, The IS formed an Eastern Interconnection Interchange Tool Task Force (EIITTF) to consider the advantages found in having a single Eastern Interconnection electronic interchange tool such as the Western Interconnections's WIT. The EIITTF is made up of Jeremy West - Task Force Chair, Larry Goins, Shane Jenson, Pat Doran, Jim Hansen, and Tom Vandervort.	021208	
IS	Ramp Rate	111507, Interchange Subcommittee is requested to review and identify all NERC reliability standards and NAESB business practices standards that refer to specific ramp rates (10 minutes; 20 minutes; source and sink must agree; etc.).	021208	