

Joint Interchange Scheduling Working Group Meeting

Wednesday, May 21, 2008 — 8 a.m.–4 p.m. PDT

Thursday, May 22, 2008 — 8 a.m.–Noon PDT

Catamaran Resort Hotel

3999 Mission Boulevard

San Diego, CA

Hotel Phone: (858) 539-8700

Conference Bridge (Call-in):

Wednesday Phone Number: (732) 694-2061

Wednesday Access Code: 1123042108#

Thursday Phone Number: (866) 503-3045

Thursday Access Code: 46711912

Participation via WebEx Webcast

Location: <https://nerc.webex.com/nerc>

Topic: JISWG

Wednesday Password: 052108

Thursday Password: 052208

Agenda

1. **Administrative**
 - a. Membership and Guests — Chair
 - b. Arrangements — Secretary
 - c. Approval of Meeting Minutes
 - i) January 23–24, 2008 Meeting Minutes — Chair
 - ii) March 19–20, 2008 Meeting Minutes — Chair
 - d. Procedures
 - i) Parliamentary Procedures — Secretary
 - ii) Antitrust Compliance Guidelines — Secretary
 - e. Approval of Agenda — Chair
2. **Vendor Notification for e-Tag Authority Service Modifications**
3. **Development of PKI Standards for e-Tags — Chair**
4. **Coordinate Interchange Timing Tables Standard Drafting Team — Chair**
5. **Coordinate Interchange Draft Business Practices Document — Chair**

6. **NAESB Confidentiality Agreement** — Chair
7. **NAESB Electric Industry Registry (EIR) Transition from NERC to NAESB** — Chair
8. **NAESB and NERC Registry Oversight Committee** — Chair
9. **e-Tag 1.8.1 Specifications Enhancements** — Chair
10. **Transport Layer Security – HTTPS** — Chair
11. **Global Location Number (GLN)** — Chair
12. **Future JISWG Meetings/Conference Calls** — Chair
 - a. Review Meeting Dates, Start and End Times
 - b. NERC-hosted Meeting Guidelines
 - c. Future JISWG Meetings Conference Calls/Webcast Schedule

July 23–24, 2008	Halifax
September 16, 2008	Vancouver
November 12–13, 2008	Houston
January 2009	TBD
March 2009	TBD
May 2009	TBD
July 2009	TBD
September 2009	TBD
November 2009	TBD

Item 1. Administrative

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

Co-chairs Jim Hansen and Bob Harshbarger will welcome the Joint Interchange Scheduling Working Group (JISWG) members, e-Tag vendors, and guests. The chairs will ask members and guests to introduce themselves.

Attachment

Attendance list to be provided at the meeting

***Item 1.b* Arrangements**

The Joint Interchange Scheduling Working Group meeting will begin on Wednesday, May 21 at 8:00 a.m. and adjourn by noon on Thursday, May 22. Lunch will be provided to the meeting attendees on Wednesday.

***Item 1.c* Approval of Meeting and Conference Call Minutes**

The chair will ask for review and approval of the January 23–24, 2008 and March 19–20, 2008 meeting minutes.

Attachment

1. January 23–24, 2008, JISWG Meeting Minutes
2. March 19–20, 2008, JISWG Meeting Minutes

***Item 1.d* Procedures**

Item 1.d.i. Parliamentary Procedures

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

Item 1.d.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.e* Approval of Agenda**

The chair will ask for approval of the IS meeting agenda.

Minutes Joint Interchange Scheduling Work Group

January 23–24, 2008.
West Palm Beach, Florida

A meeting of the North American Electric Reliability Corporation (NERC) and the North American Energy Standards Board (NAESB) Joint Interchange Scheduling Working Group (JISWG) was held on January 23–24, 2008 in West Palm Beach, Florida. 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.

JISWG Co-Chairs Jim Hansen and Bob Harshbarger presided.

Antitrust Compliance Guidelines

Secretary Vandervort acknowledged the NERC Antitrust Compliance Guidelines.

Minutes of the Previous Meetings

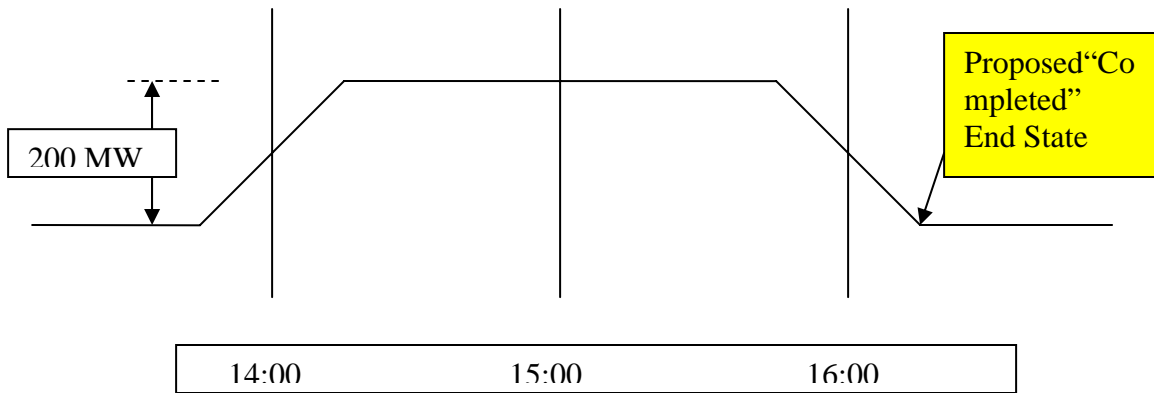
Paul Sorenson moved to approve the November 15–16, 2007 JISWG Meeting Minutes. The JISWG adopted the minutes by unanimous consent.

e-Tag “Completed” and “Terminated” End States

The JISWG discussed the current e-Tag specifications that do not have an e-Tag “completed” end state. After an e-Tag has been implemented and has run its scheduled duration, the e-Tag is complete. However there is no “completed” end state. See the Example: Proposed “Completed” End State, below.

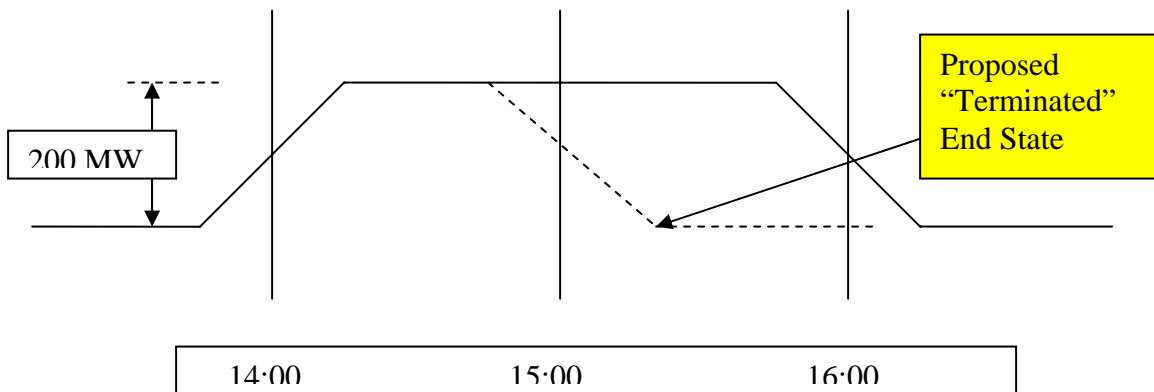
The JISWG discussed a second issue related to the e-Tag specifications. This issue regarded an e-Tag “terminated” end state. After an e-Tag is terminated there is no “terminated” end state. See the example: Proposed “Terminated” End State, below. The JISWG decided to modify the e-Tag specifications to create a “terminated” end state and to set the transition to “terminated” at the end of the ramp (termination time + ½ ramp duration.)The JISWG will evaluate the addition of a “Completed” end state when it begins working on the next revision to the e-Tag specifications (version 1.8.1). The JISWG will begin working on the e-Tag specification version 1.8.1 during the next JISWG Meeting in March 2008.

200 MW Schedule from 14:00–16:00
 Implementation period from beginning of start ramp to end of complete ramp. There is no current “completed” end state.



Example: Proposed “Completed” End State

200 MW Schedule from 14:00–16:00
 The transaction is terminated at 15:00. At the end of the termination ramp, the e-Tag is terminated. There is no current “terminated” end state.



Example: Proposed “Terminated” End State

IDCWG e-Tag “Cancellation,” “Termination,” and Sequence Concerns

The Interchange Distribution Work Group (IDCWG) requested the JISWG address and respond to their concern, as follows:

“The IDCWG identified an issue with e-Tag Spec 1.8 regarding CANCELLATION and TERMINATION which can affect the IDC. The IDCWG is seeking clarification from the JISWG, as well as a small change to the e-Tag 1.8 specification, as a means to resolve our problem. Please see the attached letter which provides a description of our issue.”
See **Exhibit F**.

The JISWG reviewed the letter and does not believe a change to e-Tag specification version 1.8 is necessary. The IDCWG concern was discussed during the development of the e-Tag specification version 1.8 development. The JISWG believes the e-Tag specification is clear that once the final end state is accepted, no further tag requests can be processed. Once a tag is terminated and final, all further requests to modify that specific tag are rejected.

The JISWG also considered the IDCWG concern “Out of Sequence.” The JISWG response is that it does not matter when the tag orders are submitted. What matters is when the tag orders are processed. This was a conscientious decision when the e-Tag version 1.8 specification was written. As an example, eight e-tag orders are submitted for processing and order eight is processed first. E-Tag Orders one through seven are still waiting to be processed. That is it! Order eight is processed and implemented, then Orders one through seven may be processed randomly.

The JISWG will consider this issue again to add clarification when the JISWG begins working on the e-Tag specification version 1.8.1 during the next JISWG Meeting in March 2008.

e-Tag Security

The JISWG discussed when to transition the e-Tag specifications to require transport layer security (TLS), i.e. https vs. http. The JISWG discussed transition dates of June 1, 2008 and December 1, 2008. Both dates are considered reasonable and achievable. Once the TLS is established, entities transition to https at any time. A major consideration that needs to be addressed is how to handle any http URLs after the designated transition date. JISWG Co-Chair Jim Hansen suggests the JISWG contact the entities or to have NERC send a letter explaining the transition and the transition dates.

e-Tag Registry Transfer from NERC to NAESB

NAESB requested the JISWG perform a technical review of the NERC Transmission System Information Networks (TSIN) Registry. Since the last revision of this document, NAESB felt that it needed a review for accuracy, to bring it up-to-date, and to incorporate language that reflects the transition from NERC to NAESB.

The JISWG reviewed, discussed, and updated/enhanced the e-Tag registry, now called the Electric Industry Registry (EIR). The red-line version is attached for review. See **Exhibit G**.

The JISWG requests comments on the red-line draft Electric Industry Registry that is posted on the NAESB JISWG Web site. It is located on the JISWG January 23–24, 2008 Meeting, in the documents column. The link is:

http://www.naesb.org/weq/weq_jiswg.asp

Comments will be reviewed and addressed during the March 19, 2008 JISWG Meeting.

Coordinate Interchange Timing Tables Standard Drafting Team

Jim Hansen reported that the Coordinate Interchange Timing Tables Standard Drafting Team (CITTSDT) met to finalize the revision to the INT-005, INT-006, and INT-008 Interchange standards' timing tables. The CITTSDT made modifications to the timing tables in response to stakeholder comments and made a minor clarification to INT-006, Requirement R1. The drafting team is posting the revised standards INT-005, INT-006, and INT-008 for additional stakeholder comments to the timing tables from January 24, 2008–March 8, 2008. The announcement, standards revisions, implementation plan, and comment form can be found on the NERC Standards Coordinate Interchange — Timing Table (Project 2007-14) Web site, as follows:

http://www.nerc.com/~filez/standards/INT_Urgent_Action.html

NAESB Confidentiality Agreement

The JISWG began the development of the proposed NAESB Confidentiality Agreement for Electric System Data by using the NERC Confidentiality Agreement as a reference document. The JISWG went through the entire confidentiality agreement and modified it to incorporate non-disclosure requirements of electric system data to be agreed upon by NAESB officials and the respective stakeholders.

The draft NAESB Confidentiality Agreement for Electric System Data was forwarded by the JISWG to the NAESB Electronic Scheduling Subcommittee and the Information Technology Subcommittee (ESS/ITS) for their review, processing, legal review, and disposition on the next step in the formalization process. See **Exhibit H**.

Interchange Subcommittee and Joint Interchange Scheduling Work Group Possible Consolidation

The JISWG briefly and informally discussed the advantages and disadvantages of merging the two groups into a single subcommittee that would report to the NERC Operating Committee (OC) and to the NAESB Electronic Scheduling Subcommittee (ESS). The JISWG did not generate any recommendations or conclusions in favor for or against consolidation of the two groups.

Dates and Locations of Future Meetings

The JISWG reviewed the 2008 meetings schedule and revised some of the “start times” and “stop times.” Look for additional information and meeting details on the NERC JISWG Web site and on the NAESB JISWG Web site.

Additional meetings or conference calls may be scheduled as necessary for the implementation of the e-Tag 1.8.

JISWG 2008 Meeting/Conf Call/Webcast Schedule

	Date	Time	Location	Meeting Coordinator
Meeting	Wed, Mar 19 Thur, Mar 20	10 am–5 pm 9 am–Noon	Houston, TX	NAESB
Meeting	Wed, May 21 Thur, May 22	8 am–4 pm 8 am–Noon	San Diego, CA	NERC
Meeting	Wed, Jul 23 Thur, Jul 24	1 pm–5 pm 10 am–5 pm	Halifax, NS, Canada	NERC
Meeting	Tues, Sep 16	8 am–4 pm	Vancouver, BC, Canada	NERC Precedes the IS Meeting
Meeting	Wed, Nov 12 Thur, Nov 13	10 am–5 pm 9 am–Noon	Houston, TX	NAESB

Respectfully submitted,

Tom Vandervort

Thomas J. Vandervort
 Joint Interchange Scheduling Working Group NERC Secretary



North American Energy Standards Board

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TO: NERC/NAESB Joint Interchange Scheduling Working Group (JISWG) Participants and Interested Parties
FROM: Deonne Cunningham, NAESB Meeting/Project Manager
RE: Draft Minutes from the NERC/NAESB Joint Interchange Scheduling Working Group (JISWG) Meeting in Houston, TX- March 19-20, 2008
DATE: April 10, 2008

**WHOLESALE ELECTRIC QUADRANT
NERC/NAESB JOINT INTERCHANGE SCHEDULING WORKING GROUP (JISWG)
MARCH 19-20, 2008 HOUSTON, TX
DRAFT MINUTES**

1. Administrative

Mr. Hansen welcomed the participants to the meeting. The participants in the room and on the phone introduced themselves. Ms. Cunningham gave the anti-trust guidance. Mr. Hansen asked for a motion to adopt the agenda as already written. Paul Sorenson moved to adopt the agenda as written and Mr. Aymond seconded the motion.

2. EIR Comments

Mr. Hansen opened the discussion by stating that only comments were posted on the NAESB website and that they would be viewed in alphabetical order. The group addressed the comments submitted in response to the group's request for informal comments on the EIR System Requirements document 20080123. The Electric Industry Registry (EIR) Systems Requirements document can be found via the following link: http://www.naesb.org/pdf3/weq_jiswg031908w1.doc. Mr. Hansen suggested viewing the informal comments in alphabetical order as there were only two comments posted on the NAESB website. The comments received by BPA and Midwest ISO were divided into questions in which the group responded accordingly.

The group reviewed the comments submitted by BPA. In response to comment 6¹, Mr. Sorenson made a motion which recommended that NAESB and NERC jointly establish a registry oversight committee to handle development and ongoing support for registry related issues. The group's purpose for the motion was to establish a more defined coordination between NAESB and NERC. The motion was seconded by Mr. Tritch. There was no discussion on the motion and it passed unanimously.

The group reviewed comment 10² and responded with a general comment. Mr. Sorenson noted NERC gave authority to charge a nominal registry fee. He stated NERC was authorized to levy a fee to all entities to defer costs to the registry. Bob Harshbarger will find the FERC ruling which addresses the registry funding mechanism. Ms.

¹ Comment 6: The reader seems to get a little lost when it comes to whether NERC or NAESB have control/final authority over certain functionality. (E.g. Section 3.6 Display Consistency refers to NERC; Section 4.3 Disaster Recovery refers to NAESB; 4.4 Structured and Coordinated Upgrades refer to NERC). Are there defined roles of NERC and NAESB in the implementation and general administration of the EIR?

² Comment 10: General Comment: Any restrictions on access to the EIR should not impact the ability of a transmission customer to transact business on OASIS as reflected in the following FERC language, found in 18 CFR Part 37, [Docket No. RM95-9-003; Order No. 638] Open Access Same-Time Information System and Standards of Conduct (Issued February 25, 2000).



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Rehman questioned JISWG's response to comment 10 and wondered if the response would be the same if an entity did not sign a confidentiality agreement. Ms. Rehman suggested that JISWG be cognizant of FERC's position in the past regarding access to various users. Ms. Rehman stated there should be a requirement for a valid entity to be able to access their respective data. Mr. Hansen and Mr. Sorenson stated that all valid entities are defined as stated in the EIR specifications and only may be added to registry by the administrator. Mr. Hansen defined entity administrator as a person that has been identified when authorized by the entity to be the administrator of their data.

The rest of the responses to the comments submitted by BPA can be found via the following link: http://www.naesb.org/pdf3/weq_jiswg031908a3.doc. The revisions to the EIR can be found as an attachment to the minutes via the following link: http://www.naesb.org/pdf3/weq_jiswg031908a2.doc.

The group reviewed and discussed the comments submitted by Midwest ISO. Ed Skiba noted that the comments were either general in nature or editorial cleanup. The group determined when reviewing Question 1 the editorial cleanup will be listed as an Action Item. Mr. Sorenson will be responsible for drafting language relating to a generic deletion for the deactivation notification scheme. He stated that all entities need to be able to approve the deletion and deactivation should be at least 30 days. Mr. Hansen will draft language to clarify that the NERC functional model entities will be included in the registry. The group agreed that NAESB and NERC would be notified in an effort to receive further definition of their respective roles and responsibilities. This response was also noted as an Action Item in response to Question 3.

Next, the group reviewed the EIR for references to NAESB as it relates to the Midwest ISO comments. Midwest ISO was concerned with lack of definition regarding the roles and responsibilities of NERC and NAESB. Mr. Harshbarger recognized the lack of clearly defined roles and responsibilities for NAESB. He stated that "NAESB/NERC" would be a placeholder in the EIR due to the uncertainty regarding the roles of both organizations. Mr. Hansen inserted language into Section 2.3.5 noting the document is subject to change and all subsequent changes must accommodate changes to the NERC Functional Model.

Mr. Sorenson motioned for the EIR to be released as amended at the meeting to the NAESB staff for final clerical, typographical errors and initiate an EIR Request for Proposal (RFP). The motion was seconded by Mr. Tritch. The group held discussion regarding the motion. The group needed clarification from Rae McQuade regarding NAESB's process for a RFP. Ms. McQuade stated that once the specifications are released by the subcommittee, it will be put into a RFP and sent to NERC for review. Once complete, NAESB will send out a Request for Proposal (RFP). No further discussion was held regarding the motion and it passed unanimously. The revisions to the EIR can be found via the following link: http://www.naesb.org/pdf3/weq_jiswg031908a2.doc

As a separate note, Ms. McQuade noted that JISWG input will be needed regarding either the Dun and Bradstreet (DUNS) or Global Locating Number (GLN) method of coding to identify organizations – a key element in the EIR.

3. e-Tag 1.8.1

Mr. Hansen opened the discussion by stating that e-Tag enhancement requests should be posted for comments so the industry would be able to make additions. Mr. Harshbarger proposed the comments be posted on both NERC and NAESB JISWG websites with appropriate notices sent out for informal comment. The responses are due to both organizations by May 20, 2008. There were no objections or discussions held regarding the posting of the documents.

The group reviewed and proposed revisions to the e-Tag 1.8.1 Enhancement Requests. The group also discussed and created a list of WECC Specific Items. For Item 10, Mr. Simpson stated that if the load balancing authority is the one that can approve then another entity should be able to override. Mr. Hansen argued the override, which goes into authority, is in synch with the Tag and the concept developed by IA, the IAFTF paper, and INT standards. He stated that the Source Balancing Authority (BA) may only step in if the Sink BA's ability is hampered. Mr. Simpson stated that under the definition of override, the Source BA does not have the same authority service. He contended that timing wise it does not relate to the wants of his customers. Mr. Hansen commented that approval may be written by the Balancing Authority.



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The group discussed the suggestion that the e-Tag specification become a NAESB standard. Mr. Vandevort stated the e-Tag specifications will not become a NERC standard because it does not fit within previous NERC standards. He contended that there are facets of the e-Tag standards that have more commercial than reliability aspects. Regarding eTag specifications and technology for transmitting data, Mr. Hansen stated the industry should choose the best technology as it relates to implementing standards. The group determined it would delay discussion until 2009, when the NERC INT Standards are complete. The proposed revisions to the e-Tag 1.8.1 Enhancement Requests and WECC Specific Items can be found via the following link:
http://www.naesb.org/pdf3/weq_jiswg031908a5.doc.

4. Revisions to Coordinate Interchange cleanup effort

Mr. Hansen informed the participants that there will be additional modifications to the Coordinate Interchange (WEQ-004) standards documentation. After all revisions have been made to the document, the Coordinate Interchange standards documentation will be passed to NAESB and sent out for comment. Mr. Hansen noted that the purpose reflects last revisions made to the standard and should be either modified or stricken. Mr. Harshbarger recommended creating a recommendation document and to include supporting documentation as to why the modifications were made. The group determined drafted a new purpose with included the following language: "To ensure that all commercial aspects of Coordinate Interchange are met by all entities that are impacted. To ensure that requests for interchange mesh are applicable to NERC standards and timing requirements." The group agreed the summary will not be a part of the final document. The following parking lot issues were created: (1) Include annual plan reference (b)—rounding standard; (2) Revisit applicability of ramp duration agreement; (c) Revise the annual plan items for JISWG which will address the surety assessment finding on NAESB PKI items. The group then addressed alterations to the Ramping Section. The redline version of the WEQ-004- Coordinate Interchange may be viewed via the following link: http://www.naesb.org/doc_view2.asp?doc=weq_jiswg031908a1.doc.

5. Review Status of the NAESB Confidentiality Agreement

Mr. Hansen informed the participants there was no update regarding the NAESB Confidentiality Agreement. JISWG will review the NAESB Confidentiality Agreement and provide a final version to the NAESB staff.

6. Schedule of Remainder of Meetings for 2008

The group reviewed the remaining meeting dates for 2008.

- May 21-22, 2008, 10:00 a.m. to 5:00 p.m. Pacific on May 21, 2008, and 9:00 a.m. to 12:00 p.m. Pacific on May 22, 2008. The meeting will be hosted by NERC in San Diego, California.
- July 23-24, 2008, 10:00 a.m. to 5:00 p.m. Eastern on July 23, 2008 and 9:00 a.m. to 12:00 p.m. Eastern on July 24, 2008. The meeting will be hosted by NERC in Halifax, Nova Scotia.
- September 16, 2008, 8:00 a.m. to 4:00 p.m. Pacific. The meeting will be hosted by NERC in Vancouver, BC.
- November 12-13, 2008, 10:00 a.m. to 5:00 p.m. Central on November 12, 2008, and 9:00 a.m. to 12:00 p.m. Central on November 13, 2008. The meeting will be hosted by NAESB in Houston, Texas.

7. Action Items

- The NAESB office will review the EIR System Requirements document for final clerical and typographical errors and initiate an EIR Request for Proposal (RFP).
- Motion recommending that NAESB and NERC jointly establish registry oversight committee will be sent to Rae McQuade and Tom Vandevort as action item for further development and discussion.
- Bob Harshbarger will review FERC orders for ruling regarding registry funding mechanism.
- Paul Sorenson will draft language regarding a generic deletion of the deactivation notification scheme of the revised EIR System Requirements.
- Jim Hansen will draft language clarifying the NERC functional model entities to be included in Section 1 of the revised EIR System Requirements.



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- JISWG will notify NAESB and NERC of the need for roles and responsibilities to be defined respective of both organizations.
- Jim Hansen will draft a definition for Local Balancing Authority to be included in the revised EIR System Requirements.
- A request for informal comments will be posted on both NAESB and NERC websites. The responses to the comments will be due May 20, 2008.
- Review and complete EIR RFP.
- Review and provide final version of Confidentiality Agreement.

8. Agenda Items for May 21-22, 2008 JISWG Meeting

- Mandatory conversion to TLS (transport layers security)
- Develop PKI standards for e-Tag
- Review comments from proposed 1.8.1 e-Tag revisions
- Continue revisions to e-Tag 1.8.1 specifications
- Possible review of EIR Systems Requirements

9. Adjourn

Mr. Hansen moved to adjourn and Mr. Tricht seconded the motion. The meeting was adjourned at 11:59 a.m. Central on March 20, 2008.

10. Attendance

Name:	Organization:	March 19	March 20
Kristy Humphrey	BPA	Phone	Phone
Troy Simpson	BPA	Phone	
Barbara Rehman	BPA	Phone	
Clint Aymond	Entergy	In Person	In Person
Jim Cyruleswki	JDRJC Associates	Phone	Phone
Tim Kannel	MCG	Phone	Phone
Ed Skiba	Midwest ISO	Phone	
Deonne Cunningham	NAESB	In Person	In Person
Cory Galik	NAESB	In Person	In Person
Tom Vandervort	NERC	In Person	In Person
Jenella Battles	Nevada Power	Phone	Phone
Paul Sorenson	OATI	In Person	In Person
Robert Harshbarger	Puget Sound Electric	In Person	In Person
Jim Hansen	Seattle City Light	In Person	In Person
Mark Sundsten	SunGard	In Person	
Andy Tritch	Sungard	In Person	In Person

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.

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

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, Bylaws, and Rules of Procedure are followed in conducting NERC business.

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.

Item 2. Vendor Notification for e-Tag Authority Service Modifications

A vendor request was made as follows: If any vendor upgrades any system that impacts lots of other entities (through e-Tagging, OASIS, etc.) that vendor will provide notification. There have been a couple of cases where supposedly benign system upgrades have caused problems by breaking functionality. JISWG can discuss and make recommendations for a reasonable procedure for e-Tag. Theoretically, this would decrease the likelihood that other vendors would spend a bunch of time trying to find the cause of a problem that cropped up coincident with the change and could instead focus on the possibility that the problem was caused by the change. To the extent that e-Tags have commercial and reliability impacts, this change would decrease negative impacts on both.

Action

The JISWG needs to discuss, determine a resolution to the vendor notification e-Tag service modification vendor request, and plan to implement the resolution.

Item 3. Deployment of PKI Standards for e-Tags

During the March 19–20 JISWG meeting, the working group had a brief discussion on PKI standards requirements for e-Tags. The outcome of the discussion was to include the development of PKI standards for e-Tags onto this meetings agenda.

Action

The JISWG will discuss and begin developing PKI standards for e-Tags. JISWG Chairmen Hansen and Harshbarger have the discretion to lead the development of the PKI standard or to appoint an individual to lead the effort to develop PKI standards for e-Tags.

Reference

Wikipedia reference for Public Key Infrastructure (PKI)

Attachment

Wikipedia reference for Public Key Infrastructure (PKI)

Public key infrastructure

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• Have questions? [Find out how to ask questions and get answers.](#) •



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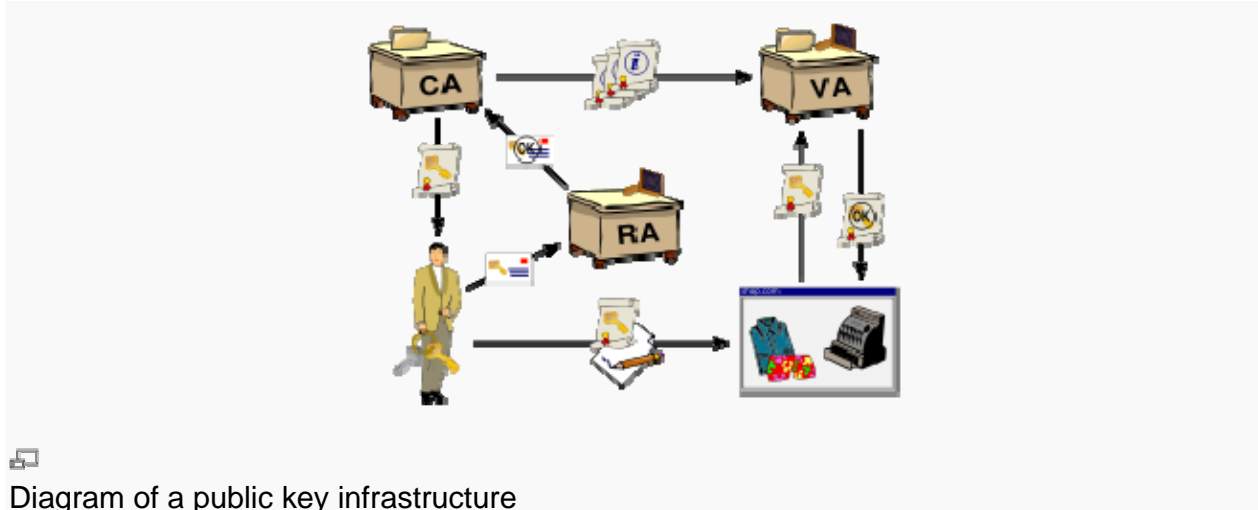


Diagram of a public key infrastructure

In [cryptography](#), a **public key infrastructure (PKI)** is an arrangement that binds [public keys](#) with respective user identities by means of a [certificate authority \(CA\)](#). The user identity must be unique for each CA. The binding is established through the registration and issuance process, which, depending on the level of assurance the binding has, may be carried out by software at a CA, or under human supervision. The PKI role that assures this binding is called the Registration Authority (**RA**). For each user, the user identity, the public key, their binding, validity conditions and other attributes are made unforgeable in [public key certificates](#) issued by the CA.

The term [trusted third party \(TTP\)](#) may also be used for [certificate authority \(CA\)](#). The term PKI is sometimes erroneously used to denote [public key algorithms](#), which do not require the use of a CA.

[\[edit\]](#) Purpose and functions

PKI arrangements enable computer users without prior contact to be [authenticated](#) to each other, and to use the public key information in their [public key certificates](#) to [encrypt](#) messages to each other.^[1] In general, a PKI consists of client software, server software, hardware (e.g., [smart cards](#)), legal contracts and assurances, and operational procedures. A signer's [public key certificate](#) may also be used by a third-party to verify the [digital signature](#) of a message, which was made using the signer's

[private key](#). In general, a PKI enables the parties in a dialogue to establish [confidentiality](#), [message integrity](#) and user [authentication](#) without having to exchange any secret information in advance, or even any prior contact. The validity of a PKI between the communicating parties is, however, limited by practical problems such as uncertain certificate revocation, CA conditions for certificate issuance and reliance, variability of regulations and evidentiary laws by jurisdiction, and trust.^[2] These problems, which are significant for the initial contact, tend to be less important as the communication progresses in time (including the use of other communication channels) and the parties have opportunities to develop trust on their identities and keys.^[2]

[\[edit\]](#) Typical use

Most enterprise-scale PKI systems rely on certificate chains to establish a party's identity, as a certificate may have been issued by a certificate authority computer whose 'legitimacy' is established for such purposes by a certificate issued by a higher-level certificate authority, and so on. This produces a certificate hierarchy composed of, at a minimum, several computers, often more than one organization, and often assorted interoperating [software packages](#) from several sources. [Standards](#) are critical to PKI operation, and public standards are critical to PKIs intended for extensive operation. Much of the standardization in this area is done by the [IETF PKIX](#) working group.

Enterprise PKI systems are often closely tied to an enterprise's [directory](#) scheme, in which each employee's public key is often stored (embedded in a certificate), together with other personal details (phone number, email address, location, department, ...). Today's leading directory technology is [LDAP](#) and in fact, the most common certificate format ([X.509](#)) stems from its use in LDAP's predecessor, the [X.500](#) directory schema.

[\[edit\]](#) Alternatives

[\[edit\]](#) Web of Trust

Main article: [Web of trust](#)

An alternative approach to the problem of public authentication of public key information across time and space is the web of trust scheme, which uses self-signed [certificates](#) and third party attestations of those certificates. Speaking of the Web of Trust does not imply the existence of a single web of trust, or common point of trust, but any number of potentially disjoint "webs of trust". Examples of implementations of this approach are [PGP](#) (Pretty Good Privacy) and [GnuPG](#) (The GNU Privacy Guard; a free implementation of [OpenPGP](#), the standardized specification of PGP). Because PGP and implementations allow

the use of [email](#) digital signatures for self-publication of public key information, it is relatively easy to implement one's own Web of Trust.

One of the benefits of the Web of Trust, for example in [PGP](#), is that it can interoperate with a PKI CA fully-trusted by all parties in a domain (such as an internal CA in a company) that is willing to guarantee certificates, as a trusted introducer.^[2]

[\[edit\]](#) Simple public key infrastructure

Another alternative, which however does not deal with public authentication of public key information, is the [simple public key infrastructure](#) (SPKI) that grew out of 3 independent efforts to overcome the complexities of [X.509](#) and [PGP](#)'s web of trust. SPKI does not bind people to keys, as the key *is* the principal -- the one that "speaks".^[clarify] SPKI does not use any notion of trust, as the verifier is also the issuer. This is called an "authorization loop" in SPKI terminology, where authorization is integral to its design.

Additionally, PKI supports message encryption and digital signatures that further enhance transactional security. While essential services such as certificate validation and revocation, key backup and recovery, and simultaneous update of key pairs minimize the administrative workload for a PKI infrastructure, features such as audit of key history and time-stamping enhance security control and management. And last but not least, the PKI infrastructure supports cross-certification, which is key to creating a truly federated identity by enabling seamless integration among circles of trust.



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In comparison to Kerberos, PKI provides enhanced security, greater scalability and easier administration, control and management of the infrastructure. As a result, PKI enables a larger community of users, consumers and partners to communicate and transact more dynamically, securely, reliably and cost-effectively.

[\[edit\]](#) History

The public disclosure of both secure [key exchange](#) and [asymmetric key algorithms](#) in [1976](#) by [Diffie](#), [Hellman](#), [Rivest](#), [Shamir](#), and [Adleman](#) changed secure communications entirely. With the further development of high speed digital electronic communications (the [Internet](#) and its predecessors), a need became evident for ways in which users could securely communicate with each other, and as a further consequence of that, for ways in which users could be sure with whom they were actually interacting.

Assorted [cryptographic protocols](#) were invented and analyzed within which the new cryptographic [primitives](#) could be effectively used. With the invention of the [World Wide Web](#) and its rapid spread, the need for authentication and secure communication became still more acute. Commercial reasons alone (e.g., [e-commerce](#), on-line access to proprietary databases from Web browsers, etc.) were sufficient. [Taher ElGamal](#) and others at [Netscape](#) developed the [SSL](#) protocol ('[https](#)' in Web [URLs](#)); it included key establishment, server authentication (prior to v3, one-way only), and so on. A PKI structure was thus created for Web users/sites wishing secure (or more secure) communications.

Vendors and entrepreneurs saw the possibility of a large market, started companies (or new projects at existing companies), and began to agitate for legal recognition and protection from liability. An [American Bar Association](#) technology project published an extensive analysis of some of the foreseeable legal aspects of PKI operations (see [ABA digital signature guidelines](#)), and shortly thereafter, several US states ([Utah](#) being the first in [1995](#)) and other jurisdictions throughout the world, began to enact laws and adopt regulations. Consumer groups and others raised questions of [privacy](#), access, and liability considerations which were more taken into consideration in some jurisdictions than in others.

The enacted laws and regulations differed, there were technical and operational problems in converting PKI schemes into successful commercial operation, and progress has been far slower than pioneers had imagined it would be.

By the first few years of the 21st century, it had become clear that the underlying [cryptographic engineering](#) was not easy to deploy correctly, that operating procedures (manual or automatic) were not easy to correctly design (nor even if so designed, to execute *perfectly*, which the engineering required), and that such [standards](#) as existed were in some respects inadequate to the purposes to which they were being put.

PKI vendors have found a market, but it is not quite the market envisioned in the mid-90s, and it has grown both more slowly and in somewhat different ways than were anticipated. PKIs have not solved some of the problems they were expected to, and several major vendors have gone out of business or been acquired by others. PKI has had the most success in government implementations; the largest PKI implementation to date is the [Defense Information Systems Agency](#) (DISA) PKI infrastructure for the [Common Access Cards](#) program.

Item 4. Coordinate Interchange Timing Tables Standard Drafting Team

The Coordinate Interchange Timing Tables Standard Drafting Team (CITTSDT) met in Reno on April 1–2, 2008 to discuss, prepare, and come to consensus on the revised/draft NERC Interchange “INT” standards that contain the scheduling timing tables.

JISWG Co-chair Bob Harshbarger is also the CITTSDT chair. JISWG Co-chair Jim Hansen and other active JISWG members are also members of the CITTSDT. Mr. Harshbarger and the other CITTSDT members will give a status report on the standards revisions.

Item 5. Coordinate Interchange Draft Business Practices Document

During the discussion of the Coordinate Interchange (WEQ-004) Business practices standards at the March 19–20, 2008 JISWG meeting, it was noted that the purpose section reflected previous revisions. The JISWG revised the purpose section during the last meeting.

Mr. Harshbarger recommended creating a summary document to include supporting documentation as to why the last modifications were made. After discussion, the working group agreed the summary will not be a part of the standard.

The following is a list of “clean-up” items for the Coordinate Interchange that the JISWG will address:

1. Create a summary document explaining the previous/current revisions
2. Include annual plan reference
3. Include reference to the respective rounding standard(s)
4. Revisit applicability of ramp duration agreement
5. Revise the annual plan items for JISWG which will address the surety assessment finding on NAESB PKI items

Action

The JISWG will address the list of items above related to the NAESB Coordinate Interchange Business Practices Document.

Item 6. NAESB Confidentiality Agreement

The JISWG drafted a request to initiate a NAESB “confidentiality agreement” or “non-disclosure agreement.” The NAESB Executive Committee assigned the initial task of drafting a confidentiality agreement to the JISWG. The JISWG drafted the initial NAESB e-Tag confidentiality agreement . The agreement was forwarded to the Electronic Scheduling Subcommittee and the Information Technology Subcommittee (ESS/ITS) for distribution to the other NAESB subcommittees and working groups for their input and consensus.

Action:

Paul Sorenson or Chairmen Harshbarger or Hansen will give a status on the draft NAESB Confidentiality Agreement/Non-disclosure Agreement.

Item 7. NAESB Electric Industry Registry (EIR) Transition from NERC to NAESB

After the March 19–20, 2008 JISWG meeting, the NAESB office intended to review the Electric Industry Registry (EIR) System Requirements document for final clerical and typographical errors and initiate an EIR Request for Proposal (RFP). Additional items that the JISWG has or will perform to support the transition of the EIR include:

1. Mr. Harshbarger will review FERC Orders for rulings regarding registry funding mechanisms.
2. Mr. Sorensen will draft language regarding a generic deletion of the deactivation notification scheme of the revised EIR System Requirements.
3. Mr. Hansen will draft language clarifying the NERC Functional Model entities to be included in Section 1 of the revised EIR System Requirements.
4. Mr. Hansen will draft a definition for Local Balancing Authority to be included in the revised EIR System Requirements.
5. The JISWG may review the EIR System Requirements depending on the RFP timeline.

Action

The JISWG will address the above items to assist the NAESB office in preparation for the EIR RFP.

Item 8. NAESB and NERC Registry Oversight Committee

During the March 19–20, 2008 JISWG meeting, a motion was unanimously passed by the JISWG which recommended that NAESB and NERC jointly establish a registry oversight committee to handle development and ongoing support for registry related issues. The working group's purpose for the motion was to establish a more defined coordination between NAESB and NERC.

Action

The JISWG will discuss what needs to happen in order to make the NAESB-NERC EIR Registry Oversight Committee a reality. Consideration needs to be focused on defining NAESB and NERC roles and responsibilities.

Item 9. e-Tag 1.8.1 Specifications Enhancements

Industry participants are asked to submit informal comments on the proposed e-Tag 1.8.1 revisions. Please follow the instructions in the cover letter below. The proposed e-Tag 1.8.1 revisions follow the cover letter.

Note: Request for Informal Comments on the e-Tag 1.8.1 specifications are due on May 20, 2008.

Action

The JISWG will review the informal comments that are received on or before May 20, 2008 during this meeting.

Attachments

1. Cover letter "Request for Informal Comments on the e-Tag 1.8.1 specifications, Comments are due May 20, 2008"
2. Proposed e-Tag 1.8.1 Revisions



North American Energy Standards Board

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Phone: (713) 356-0060, Fax: (713) 356-0067, E-mail:
naesb@naesb.org
Home Page: www.naesb.org

TO: NAESB Wholesale Electric Quadrant (WEQ) Members and Interested Industry Participants

CC: NAESB WEQ Joint Interchange Scheduling Working Group (JISWG)

FROM: WEQ Joint Interchange Scheduling Working Group (JISWG), Deonne Cunningham, Meeting/Project Manager, NAESB

RE: Request for Informal Comments on the e-Tag 1.8.1 specifications, Comments are due **May 20, 2008**

DATE: March 27, 2008

Dear NAESB WEQ Members and Interested Industry Participants,

During the March 19-20, 2008 Joint Interchange Scheduling Working Group (JISWG) meeting, the subcommittee voted to post the e-Tag 1.8.1 Enhancement Requirements Document for an informal comment period beginning today, March 27, 2008 and ending on May 20, 2008.

The document can be found on the NAESB website through the following link:

e-Tag 1.8.1 Enhancement Requirements Document:
http://www.naesb.org/pdf3/weq_jiswg032708reqcom_a1.doc

For further information on the development of this document, please reference the March 19-20, 2008 draft minutes, to be posted shortly on the WEQ JISWG page at http://naesb.org/weq/weq_jiswg.asp. Comments submitted will be reviewed by the WEQ JISWG during the May 21-22, 2008 meeting. Please return any comments you have on the document to the NAESB Office (naesb@naesb.org or 713-356-0067 fax) by **May 20, 2008**. If you have any questions or need further assistance, feel free to contact the NAESB Office at 713-356-0060.

Best Regards,

Deonne R. Cunningham
NAESB

During development of e-Tag 1.8 several issues arose that were put off for later consideration in order to minimize the risk to successful 1.8 implementation. These issues are summarized below. Several issues were brought by various entities and some were added by the e-Tag vendors and JISWG to technically improve the e-Tag specification.

1. Modify definition of forward URL in the CA, TP, and PSE registry to be anything the customer wants. Clean up section 1.4.1.2 to be consistent with 3.6.1.1.1. Enhancement suggested by vendor.
2. Clarify when the composite states of TERMINATED and CANCELLED occurs (such as at termination time). e-Tag specification cleanup. Suggested by the NERC Interchange Distribution Calculator Working Group (IDCWG).
3. Should IMPLEMENTED transition to COMPLETED after end of e-Tag? Suggestion by NAESB member to add clarity to e-Tag status.
4. ActOnByTime and TimeClassification needs to be set for all Requests, not just new. e-Tag specification cleanup.
5. Add validation rule that requires all base energy profiles be submitted and that the time ranges match in adjustment requests. Automated e-Tag validation improvement.
6. Increase Query Summaries limit to 25 hours (to account for DST cutover). Enhancement suggested by vendor.
7. Consider making the miscellaneous info field correctible by the author after the e-Tag has been confirmed. Suggested by NAESB member.
8. There has been a long-standing issue with a single reliability profile and multiple reliability entities curtailing and reloading. Provide solutions (such as multiple curtailment profiles) – reload would apply only to curtailment issued by reload requestor. Suggested by NAESB member and NERC Transmission Load Relief Standard Drafting Team.
9. Allow Source BA to override approval state of tag. See section 3.3.1 of e-Tag specifications. Suggested by NAESB member.

10. Review use of the term Authority Operator throughout the e-Tag specifications. e-Tag specification cleanup.

WECC Specific

1. Clarify which entities have approval rights on miscellaneous info corrections. Related to item 7 above. Suggested by NAESB member.
2. Update the WECC Tagging Implementation Guide as appropriate. Consider publishing or posting. Suggested by NAESB member.

Item 10. Transport Layer Security – HTTPS

OATI suggests that the industry needs URLs converted over to https in the NERC registry to provide for the intended data security functionality that was designed into the systems. OATI feel that NERC should take the lead role in this conversion process and proposes the following steps to accomplish this task:

1. Each vendor will provide its URL information as text in the form of “old URL” and “new URL” to NERC.
2. At an agreed-upon date/time, NERC will replace every instance of “old URL” in every table (CA/TP/PSE/SC) in every column (approval url, agent url, authority url, forward url) with “new URL.”
3. JISWG needs to coordinate when the URL conversion should happen. OATI believes that a set date for all participants makes the most sense, but would concede to a time range, such as: “The Month of September 2008.”

Action

The JISWG needs to develop a plan to implement the mandatory transport layer security, https, including specifying the conversion date(s), coordinating NERC IT for the registry, coordinating NAESB IT for the EIR, and notifying the industry affected entities. The JISWG needs to address the transport layer security “who, what, when, and why” for the industry to make the conversion.

Item 11. Global Location Number (GLN)

The current e-Tag registry uses Dunn & Bradstreet (DUNS) numbers to track and identify corporate entities. A suggestion was made to consider moving from the DUNS numbers to the Global Location Number (GLN) numbering system. JISWG input is needed regarding either the DUNS or the GLN method of coding to identify organizations, a key element in the EIR.

Action

The JISWG will discuss the Dunn & Bradstreet and the GLN numbering systems to decide which is perceived to be superior. The intent is to produce a recommendation to the NAESB office on which system to proceed with for the transition of the e-Tag Registry (EIR) from NERC to NAESB.

Attachment

Global Location Number (GLN) Implementation Guide

Global Location Number (GLN) Implementation Guide

Executive Summary

The GLN (Global Location Number) provides a standard means to identify legal entities, trading parties and locations to support the requirements of electronic commerce. The GLN is designed to improve the efficiency of integrated logistics while contributing added value to the partners involved, as well as to customers. Examples of parties and locations that can be identified with GLNs are:

- *Functional entities* - e.g., a purchasing department within a legal entity, an accounting department, a returns department, a nursing station, a ward, a customer number within a legal entity, etc.
- *Physical entities* - e.g., a particular room in a building, warehouse, warehouse gate, loading dock, delivery point, cabinet, cabinet shelf housing circuit boards, room within a building, hospital wing, etc.
- *Legal entities/Trading Partner* – e.g., buyers, sellers, whole companies, subsidiaries or divisions such as suppliers, customers, financial services companies, freight forwarders, etc.

Key Benefits

- Administered by a not-for-profit standards organization.
- Method is supported by implementation guidance.
- Most issuing-party database managers agree that primary keys within their database should not be assigned by a third party.
- Number can be used throughout world with no need for trading partner(s) to assign proprietary numbers to ensure uniqueness
- Saves time and money as the number can be moved quickly and confidently through the supply chain.
- Numbers may be assigned to any location insuring ultimate flexibility of system to meet the needs/requirements of all businesses anywhere in the world (from loading docks to all buildings on government bases to circuit boards in a router).
- Enables users/customers to leverage the full functionality of the EAN.UCC System.
- The GLN includes a Check Digit for data integrity.
- It is managed and supported by a standards organization – EAN and UCC.
- The GLN standard is supported by guidelines, business examples and maintenance procedures. It is a globally unique number. Also, UCC and EAN have people who

can educate trading partners all over the world (1,100 people in 95+ countries) to ensure clear understanding, implementation and usage.

- It may be assigned to generic departments at the same location as well as to unstaffed operation points (e.g., automated teller machines, vending machines, etc.)
- GLNs can be encoded in UCC/EAN-128 symbols and physically marked onto:
 - Trade Items (products) to identify the parties involved in the transaction, e.g., buyer and supplier
 - Logistics units to identify the parties involved in the transaction, e.g., consignor/shipper and consignee
 - Physical locations, e.g., place of delivery, place of departure, and point of storage
- The use of GLNs provide companies with a method of identifying locations, within and outside their company that is:
 - Simple: an easily defined data structure with integrity checking that facilitates processing and transmission of data
 - Unique: GLNs are unique worldwide
 - Multi-sectoral: the non-significant characteristic of the GLN allows any location to be identified for any company regardless of its activity anywhere in the world

Why Standards

Open, global standards:

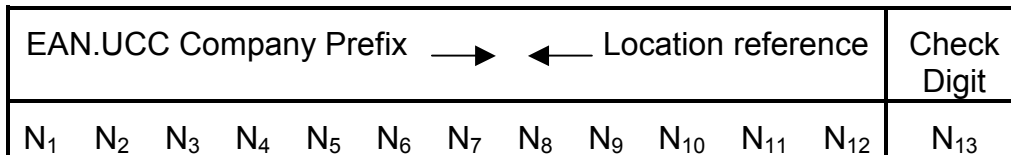
- Allow system-to-system interaction
- Speed processes by enabling end-to-end automation
- Lower costs, reduce errors
- Reduces the risk of system incompatibility
- Protects technology investments
- Enables the optimization of supply chain management practices
- Eliminate supply chain roadblocks and bottlenecks

In today's competitive global marketplace, speed and efficiency is critical to success – and survival. Producing a good product is no longer enough to keep a company competitive. Managing the physical flow of product with the electronic flow of business data is a major challenge in today's intensely competitive environment. At the same time, attention and detail that goes in to designing and producing a quality product must also be evident in the transmission of that product's business data through the supply chain. A system, built with standardized processes and a common business language, is needed to monitor and manage the movement of product and information through every component along the supply chain.

Definition

The GLN is simply a 13-digit number used to uniquely identify any legal, functional or physical entity. Its basic components are:

- An EAN.UCC Company Prefix
- A Location Reference
- A Check Digit



EAN.UCC Company Prefix – the number assigned to a company by either an EAN Member Organization or by the UCC. The inclusion of the EAN.UCC Company Prefix ensures uniqueness throughout the world. The EAN.UCC Company Prefix is assigned to companies in varying lengths.

Note: A UCC Company Prefix is converted to an EAN.UCC Company Prefix by adding a leading zero. Examples: the UCC Company Prefix 614141 will be 0614141 and the UCC Company Prefix 81123456 will be 081123456.

Location reference – the number assigned by the holder of the EAN.UCC Company Prefix to uniquely identify a location within the company. The Location Reference varies in length as a function of the EAN.UCC Company Prefix length. Note: The combined length of the EAN.UCC Company Prefix and Location Reference is always 12-digits.

Check Digit – a calculated one-digit number used to ensure data integrity. To understand how this digit is calculated; visit the UCC at <http://www.uc-council.org/checkdig.htm>.

Examples of Use

Each location is allocated a unique identification number. GLNs are reference keys for retrieving the indicated information from databases:

- Room within a building, hospital wing, etc.
- Delivery location including dock door.
- Purchasing department, customer contact, accounts payable department, region, etc.

Each company or organization holding an EAN.UCC Company Prefix may assign EAN.UCC Global Location Numbers to their own locations. It is the responsibility of the company assigning GLNs to keep their trading partners informed of all numbers issued and the corresponding details (name, address, etc.) Special care is needed if the ownership of the company changes.

All EAN.UCC Keys

EAN.UCC keys identify:

- **Trade items:** Products and services upon which there is a need to retrieve pre-defined information at any point in the supply chain (Global Trade Item Number™/**GTIN™**).
- **Logistic units:** Physical units established for transport and storage of goods of any kind that need to be tracked and traced individually in a supply chain (Serialized Shipping Container Code/**SSCC**).
- **Assets:** Fixed or returnable assets (Global Individual Asset Identifier/**GIAI**, Global Returnable Asset Identifier/**GRAI**).
- **Locations:** Physical, functional or legal entities requiring a permanent identification, such as a company, department, or warehouse (Global Location Number/**GLN**).
- **Service Relations:** Public or private service provider to track any entity's service requirements and needs over a continuing relationship (Global Service Relation Number/**GSRN**).

Frequently Asked Questions

1. What is meant by location?

The GLN is a unique data structure that identifies any legal, functional or physical location within a business or organizational entity such as:

- **Legal entities:** whole companies, subsidiaries or divisions such as supplier, customer, bank, forwarder, etc.
- **Functional entities:** a purchasing department within a legal entity, an accounting department, a returns department, a nursing station, a ward, a customer number within a legal entity, etc.
- **Physical entities:** a particular room in a building, warehouse, warehouse gate, loading dock, delivery point, cabinet, cabinet shelf housing circuit boards, room within a building, hospital wing, etc.

2. What are examples of locations that can be assigned GLNs?

GLNs are reference keys for retrieving information from databases about: stores, manufacturing centers, warehouses, broker's offices, sales offices, corporate headquarters, distribution centers, vending machines, postal addresses, dock doors, customers, regions, merchant marine ships, buildings on military bases, and many others.

3. Are there other location coding methods?

There are 196 different location coding methods recognized by ANSI X12 and 212 different location coding methods recognized by UN/EDIFACT. Some industries use proprietary

seller generated location codes. Some use location codes assigned by accepted third party organizations.

Some companies have used the DUNS +4 number to identify specific physical locations within their company. The use of DUNS +4 is primarily limited to North America. This is a 13-digit number that was broken into two different pieces: a 9-digit number assigned by Dun & Bradstreet to identify a company or a subset of a company (DUNS) and a 4-digit number assigned by the company or subset to uniquely identify a location within their own domain.

4. What is the first step for manufacturers, distributors and retailers to identify themselves with a GLN?

If a company does not have an assigned EAN.UCC Company Prefix, contact the UCC to obtain a membership application. If a company already has an EAN.UCC Company Prefix, the company can begin assignment now!

5. Does a company need an assigned EAN.UCC Company Prefix to create GLNs?

Yes. GLNs are created using the EAN.UCC Company Prefix assigned to the company. This Company Prefix may be directly assigned to the company or the company may utilize the Company Prefix of its parent company, with the knowledge and consent of the parent company. However, a parent company may not use a Company Prefix assigned to a company it owns.

6. What is the relationship between a GLN and a GTIN (e.g., U.P.C.)?

There is no relationship other than the use of similar techniques to manage the uniqueness of the numbers. GLNs identify locations and GTINs identify trade items (products and services). The GLN and GTIN must be stored separately because they are separate unique identifiers.

7. What are the advantages of GLNs?

The use of GLNs provides companies with a method of identifying locations, within and outside their company, that is:

Simple: an easily defined data structure with integrity checking that facilitates processing and transmission of data

Unique: GLNs are unique worldwide

Multi-sectoral: the non-significant characteristic of the GLN allows any location to be identified for any company regardless of its activity anywhere in the world.

Global: implemented around the world and supported by the international network of UCC and EAN Member Organizations, covering more than 90 countries, in the local language

8. Why use GLNs instead of an internal system?

Any company can design its own internal system and code structure to identify all the locations covering its operating requirements. Although an internal solution might seem to be the easiest and fastest way forward, when information is exchanged between computers of distinct companies this may present several problems, such as:

Duplication: two or more trading partners may use the exact same location code to identify an internal location in their company – no guarantee of uniqueness

Complexity: internal codes will have a variety of structures and formats, making application programming more complex and application changes costly

Significance: location codes that contain information related to the location in the code structure itself will become difficult to handle as the coding structure evolves to incorporate new meanings

9. Can the GLN change?

If a location identified by a GLN changes, the party responsible for the GLN should change the details associated with the GLN on the related computer file record.

A GLN that has stopped being used should remain so for at least three years before being reallocated. The delay must allow time for all references of the old location number to be removed from trading partners' files. When the location number is re-used, the details relating to the location must be retransmitted.

10. How do we assign GLNs?

For ease of administration, it is recommended that GLNs be allocated sequentially and not contain 'classifying' elements.

11. Who communicates GLNs?

It is the responsibility of the company assigning GLNs to keep business partners informed of all numbers issued and their associated information. Special care is needed if the ownership of the company changes.

12. What are the benefits of GLN?

- Can be used throughout the world with no need for trading partner(s) to assign proprietary numbers to ensure uniqueness.
- Saves time and money as the number can be moved quickly and confidently through the supply chain.
- May be assigned to any location ensuring ultimate flexibility of the GLN to meet the needs/requirements of all businesses anywhere in the world (from loading docks to aircraft carriers to circuit boards in a router).
- Enables users/customers to leverage the full functionality of the EAN.UCC system.
- GLNs can be encoded in UCC/EAN-128 bar codes and physically marked onto:

- Trade units to identify the parties involved in the transaction (buyer, supplier)
- Transport units (consignor and consignee)
- Physical locations (place of delivery, place of departure, and point of storage)

13. What Application Identifiers are used for GLNs when encoded in UCC/EAN-128 bar codes?

- "Ship to – Deliver to" EAN.UCC Global Location Number (AI 410)
- "Bill to - Invoice to" EAN.UCC Global Location Number (AI 411)
- "Purchased from" EAN.UCC Global Location Number (AI 412)
- "Ship for - Deliver for - Forward to" EAN.UCC Global Location Number (AI 413)
- EAN.UCC Global Location Number to identify a physical location (AI 414)
- EAN.UCC Global Location Number of the invoicing party (AI 415)

Standard Reference

The UCC's *Solutions Center*[™] - your one-stop source for EAN.UCC System tools to help you **improve supply chain management and conduct business more productively**. You will find the essential education and implementation resources you need to:

- Integrate and utilize the standards of the EAN.UCC System in your business
- Guide you through the bar coding process
- Improve the efficiency of your electronic commerce activities
- Uniquely identify your company's products, assets, locations, and logistics units throughout the global supply chain

Specifically, *The Art of Producing Bar Codes* will guide you through the implementation process, giving you specific solutions and guidelines to properly mark products and logistics units for use within the EAN.UCC System. This easy-to-follow system will guide you through the essentials of the bar coding process to help you:

- Assess where you will use the bar code
- Determine the specific information to include in the bar code
- Prepare bar code specifications for those responsible for printing your bar codes

A preview can be seen at <http://www.uc-council.org/solutionscenter>.

Further Help

- E-mail: <mailto:info@uc-council.org>
- Phone: 937.435.3870
- Web site: <http://www.uc-council.org/>

UCC Glossary

Term	UCC Glossary Definition
Advance Ship Notice (ASN)	Notification of product due prior to receipt (see Ship Notice Manifest (856)).
AI	Abbreviation for Application Identifier.
Application Identifier (AI)	A two-, three-, or four-digit prefix used within UCC/EAN-128 Symbols to define the meaning of information that follows.
Asset Type	A number assigned by the owner of an asset to uniquely identify a type of asset.
Attribute	A piece of information reflecting a characteristic related to an identification number (i.e., GTIN, GRAI).
Bar code	A precise arrangement of parallel lines (bars) and spaces that vary in width to represent data.
Brand owner	The party that is responsible for allocating EAN.UCC numbering and bar coding on a given trade item. The administrator of an EAN.UCC Company Prefix.
Check Digit	A digit calculated from the other digits of an Element String, used to check that the data has been correctly composed (see EAN.UCC Check Digit Calculation).
Company Number	A number allocated by the UCC or an EAN International Numbering Organization that follows the EAN.UCC Prefix within the EAN.UCC Company Prefix. When combined with the EAN.UCC Prefix, the Company Number uniquely identifies a company.
Data carrier	A means to represent data in a machine readable form, used to enable automatic reading of the Element Strings.
Data Standard	The entirety of all EAN.UCC System data standardized in meaning and structure.
Data structure	The UCC and EAN numbering structures defined in the various lengths required for the different identification purposes which all share a hierarchical composition. Their composition blends the needs of international control with the needs of the users.
EAN	See EAN International.

EAN International	EAN International, based in Brussels, Belgium, is an organization of EAN Numbering Organizations that jointly manages the EAN.UCC System with the UCC.
EAN Member Organization	A member of EAN International that is responsible for administering the EAN.UCC System in its country (or assigned area) and for managing the correct use of the EAN.UCC System by its member companies.
EAN.UCC Company Prefix	Part of the international EAN.UCC Data Structures consisting of an EAN.UCC Prefix and a Company Number, both of which are allocated by either the UCC or an EAN International Numbering Organization.
EAN.UCC Prefix	An index number with two or more digits, co-administered by the UCC and EAN International, denoting the format and meaning of a particular Element String.
EAN.UCC System	The specifications, standards, and guidelines co-administered by the UCC and EAN International.
EDI	Electronic Data Interchange.
Electronic Commerce	The conduct of business communications and management through electronic methods, such as electronic data interchange and automated data collection systems.
Electronic Data Interchange (EDI)	The computer to computer transmission of business information using a public standard format.
Electronic Message	A composition of Element Strings from scanned data and transaction information assembled for data validation and unambiguous processing in a user application.
Extension digit	A digit, allocated by the user, used to increase the capacity of the Serial Reference within the SSCC. <i>When used within the term "Extension digit," the word "digit" is never capitalized.</i>
GIAI	Shorthand term for the EAN.UCC Global Individual Asset Identifier.
GLN	Shorthand term for the EAN.UCC Global Location Number using the EAN/UCC-13 Data Structure to identify physical, functional, or legal entities.

Global Positioning Unit (GPU)	A navigational tool that assists travelers whether traveling by car, boat, plane or foot. These devices provide information pertaining to state and country boundaries, lakes, rivers, interstate highways even exit information for the federal interstate highway system. The GPU can locate services such as food, lodging and gas stations.
GRAI	Shorthand term for the EAN.UCC Global Returnable Asset Identifier.
GSRN	Shorthand term for the EAN.UCC Global Service Relation Number.
GTIN	Shorthand term for the EAN.UCC Global Trade Item Number. A GTIN may use the EAN/UCC-8, UCC-12, EAN/UCC-13, or EAN/UCC-14 Data Structure.
GTIN Format	The format in which GTINs must be represented in a 14-digit reference field (key) in computer files to ensure uniqueness of the identification numbers.
Identification Number (ID)	A numerical name for something in the supply chain to provide unique identification for it. ID numbers are used to retrieve information previously exchanged between trading partners and stored in their computer database files.
Individual Asset	An entity which is part of the inventory of given company (<i>see Returnable Asset</i>).
Individual Asset Reference	A number within a GIAI assigned by the holder of an EAN.UCC Company Prefix to an Individual Asset.
Item Number	See Item Reference.
Item Reference	The part of the data structures allocated by the user to identify a trade item for a given EAN.UCC Company Prefix.
Location Number	See GLN.
Location Reference	A number within a GLN assigned by various parties to identify a different entity.
Logistic Unit	Any "container" that permits the physical grouping and identification of goods for shipping. It could be a carton, a plastic wrap, a pallet, or a trailer, depending upon the industry or goods.
Logistic Unit Identifier	Identification of an item of any composition established for transport and/or storage that needs to be managed through the supply chain.

Manufacturer's Number	See EAN.UCC Company Prefix.
Manufacturer's ID	See EAN.UCC Company Prefix.
Point-of-Sale	The point where a customer purchases a product(s) within a retail store. This purchase is typically facilitated by a "check-out" lane or counter where bar code scanning equipment is located.
POS (Point-of-Sale)	Refers to the retail type checkout where EAN/UCC Bar Code Symbols are normally scanned.
Returnable Asset	A reusable entity owned by a company, used for transport and storage of goods.
Serial Reference	The part of the data structure allocated by the user in conjunction with the Extension digit that establishes a unique SSCC for a given EAN.UCC Company Prefix.
Serial Shipping Container Code	See SSCC.
Service Reference	A number assigned by the service provider to identify the recipient of services in the context of a service relationship.
SSCC	The unique identification of a Logistic Unit using an 18-digit data structure. Formerly known as the Serial Shipping Container Code.
SSCC Serial Number	See Serial Reference.
Symbol	The combination of symbol characters and features required by a particular symbology, including Quiet Zone, start and stop characters, data characters, and other auxiliary patterns, which together form a complete scannable entity; an instance of a symbology and a data structure.
Symbol character	A group of bars and spaces in a symbol which is decoded as a single unit. It may represent an individual digit, letter, punctuation mark, control indicator, or even multiple data characters.
Trade item	Any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced or ordered or invoiced at any point in any supply chain.
Trading partner	A party to transactions in the supply chain, such as a supplier (seller) or a customer (buyer).

UCC Company Prefix	Part of the UCC-12 Data Structure consisting of a UCC Prefix and a Company Number allocated by the UCC.
UCC/EAN-128 Bar Code Symbol	A subset of the Code 128 Bar Code Symbol that is utilized exclusively for EAN.UCC defined data structures. UCC/EAN-128 Symbols can be printed as stand-alone linear symbols or as a composite symbol with an accompanying 2D Composite Component printed directly above the EAN.UCC-128 linear component.
Uniform Code Council, Inc. (UCC)	The Uniform Code Council, based in the United States, is a membership organization that jointly manages the EAN.UCC System with EAN International. The UCC also administers the EAN.UCC System in the United States and Canada.
Universal Product Code (U.P.C.)	See UCC-12 Identification Number.
U.P.C. Symbol	A bar code symbol that encodes the twelve-digit UCC-12 (U.P.C.)
Variable Measure Trade Item	An item always produced in the same pre-defined version (type, design, packaging, etc.) that may be sold at any point in the supply chain, which either may vary in weight/size by its nature or which may be traded without a pre-defined weight/size/length.

Item 12. Future Meetings/Conference Calls

***Item 12.a* Review Meeting Dates, Start and End Times**

To ensure the West Coast is not inconvenienced by early start times on the East Coast; and to ensure the East Coast is not inconvenienced by late stop times on the West Coast, the JISWG needs to review and come to consensus on the future 2008 and 2009 meeting dates, and meeting start and stop times.

***Item 12.b* NERC-hosted Meeting Guidelines**

TO: NERC Committee, Subcommittee, Working Group and Task Force Chairs

Ladies and Gentlemen:

NERC is taking steps to drive down meeting costs, streamline our internal meeting request process, and accommodate more meeting requests with existing resources. The attached memo from Julie Morgan to the staff explains our endeavor in more detail.

For your information, the cost of Meetings and Travel represents nearly 10 percent of NERC's total annual expenses. In 2007, NERC spent approximately \$2 million on these items and we expect that in 2009 we will spend somewhere near \$3 million. Since meetings and travel are such an important element of our mission and our expense budget, it is critical that we be diligent with respect to these costs.

This note is to ask for your support by making every effort to follow the guidelines in the attached memo as you plan future meetings.

Julie has asked the staff to keep her posted on the pros and cons of the endeavor as well as the sites selected; we welcome your feedback too.

Sincerely,
Bruce Walencyk
Chief Financial Officer
NERC

Attachment
Memo on NERC Meeting Locations



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

MEMORANDUM

TO: Staff
FROM: Julie Morgan
DATE: April 9, 2008
SUBJECT: Meeting Locations

Thank you all for your fantastic input regarding meeting locations. I have taken everyone's suggestions into consideration and developed a final list of hotels (attached) to use for 50 percent of NERC's meetings. Additional criteria taken into consideration included: non-stop travel from most North American locations, meeting facilities, proximity to airport, cost, and successful past experience.

Although several of you suggested Washington, D.C., we have not been successful finding one location to meet our needs. It is an extremely expensive and difficult to book city. This doesn't mean you can't meet in D.C., it simply means it's more challenging and didn't make the "top ten" list.

Here are some important things to remember:

1. Strive to hold **half** of your meetings at a site on the attached list, not necessarily the same site each time. The other half of your meeting locations are at your discretion.
2. If your group(s) meets at regional or member company offices, you do not have to schedule your meetings at one of these sites.
3. **Plan as many meetings as possible NOW for the next year or more if possible.**
4. Send Rocio a meeting request form (attached) **by April 30**, or as soon thereafter as possible, for as many meetings as feasible. The plan is for Rocio to book several meetings at one time.
5. Refer to this list when scheduling new meetings.
6. The goals of this endeavor are multi-faceted — to drive down meeting costs, streamline the meeting request process, and accomplish more requests with existing resources.

Thanks again for your help and cooperation. Please keep me posted on the pros and cons of our endeavor.

Phoenix/Scottsdale, Arizona

Arizona Grand Resort (airport)

8000 S. Arizona Grand Parkway, Phoenix, AZ

Seven miles from Sky Harbor International Airport — Approximate driving time is 13 minutes; shuttle service \$5–15; taxis are \$16–25.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=2774/crti=2/hotel-information>

Chaparral Suites Resort (Scottsdale)

5001 N. Scottsdale Road, Scottsdale, AZ

Eight miles from Sky Harbor International Airport — Approximate driving time is 16 minutes; shuttle service is \$5–15; taxis are \$16–25.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=98/crti=2/hotel-information>

Chicago, Illinois

Hilton Chicago (airport)

O'Hare International Airport, Chicago, IL

Located on the O'Hare International Airport property, across from arrivals and baggage claim, connected to the airport by an underground walkway — Approximate driving time is 1 minute; complimentary shuttle service.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=8058/crti=2/hotel-information>

Sheraton Chicago Hotel & Towers (downtown)

301 East North Water Street, Chicago, IL

20 miles from O'Hare International Airport — Approximate driving time is 35 minutes; shuttle service is \$16–25, taxis are \$26–35.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=12167/crti=2/hotel-information>

Dallas/Houston, Texas

Marriott DFW North (airport)

8440 Freeport Pkwy, Irving, TX

Five miles from Dallas-Ft. Worth International Airport — Approximate driving time is 10 minutes; complimentary shuttle service.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=20044/crti=2/hotel-information>

Hyatt Regency Houston (downtown)

1200 Louisiana Street, Houston, TX

Twelve miles from Hobby Airport — Approximate driving time is 20 minutes.

Twenty-two miles from George Bush Intercontinental Airport — Approximate driving time is 35 minutes.

Shuttle service is \$16 from Hobby, \$20 from George Bush.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=20005/crti=2/hotel-information>

Atlanta, Georgia

Embassy Suites (airport)

4700 Southport Road, Atlanta, GA

Three miles from Hartsfield Atlanta International Airport — Approximate driving time is 12 minutes; complimentary shuttle; taxis are \$5–15.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=7345/crti=2/hotel-information>

Hyatt Regency Atlanta (downtown)

265 Peachtree Street NE, Atlanta, GA

Eleven miles from Hartsfield-Jackson Atlanta International Airport — Approximate driving time is 22 minutes; shuttle is \$16–25, and taxis are \$26–35.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=24736/crti=2/hotel-information>

Toronto, Ontario

Sheraton Gateway Hotel (airport)

Terminal 3, Toronto, Ontario

Terminal 3 adjoins the hotel with Toronto Pearson International Airport.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=4826/crti=2/hotel-information>

Marriott Bloor Yorkville Toronto (downtown)

90 Bloor Street East, Toronto, Ontario

Sixteen miles from Toronto Pearson International Airport — Approximate driving time is 40 minutes; shuttle service is \$15, taxis are \$40–50.

Hotel details: <http://www.expedia.com/pub/agent.dll/qscr=dspv/htid=11653/crti=2/hotel-information>

Item 12.c NERC-hosted Meeting Guidelines

JISWG 2008 Meeting/Conference Call/Webcast Schedule			
2008 JISWG Conference Call/Webcast Schedule			Host
None Scheduled			
2008 JISWG Meeting Schedule			
July 23–24, 2008	July 23 — 1–5 p.m. July 24 — 10 a.m.–5 p.m.	Halifax, NS	NERC
September 16, 2008	September 16 — 8 a.m.–4 p.m.	Vancouver, BC	NERC
November 12–13, 2008	November 12 — 10 a.m.–p.m. November 13 — 9 a.m.– noon	Houston, TX	NAESB
January 2009	TBD		
March 2009	TBD		
May 2009	TBD		
July 2009	TBD		
September 2009	TBD		
November 2009	TBD		

Notes:

1. Schedule additional meetings, conference calls, or Webcasts as deemed necessary to address and accomplish JISWG business.
2. Conduct future JISWG 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.