



NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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

NERC — Transaction Information System Working Group Meeting NAESB — Information Technology Subcommittee

Tuesday, December 2, 2003 — 1–5 p.m.
Wednesday, December 3, 2003 — 8 a.m. to 12 noon

Caribe Royale All Suites Resort
8101 World Center Drive
Orlando, Florida 32821
Phone: 407-238-8000
Fax: 407-238-8400

Agenda

- 1. Administrative** **20 min.**
 - a. Welcome and Introductions – Chairman
 - b. Arrangements – Secretary
 - c. Antitrust Guidelines – Chairman
 - d. Approval of Agenda – Chairman

- 2. Organization Update – Gordon Scott** **30 min.**
 - a. NERC Functional Model, SARs, Standards, and Transition – Gordon Scott
 - b. Transaction Information System Working Group – Monroe Landrum
 - c. Information Technology Subcommittee – Alan Johnson
 - d. Electronic Scheduling Subcommittee – Joel Dison

- 3. OSC Transition – Monroe Landrum** **3 hours**
 - a. OASIS 1A Enhancements – J.T. Wood
 - b. OASIS II Use Cases and Functional Requirements Document – Paul Sorenson

- 4. e-MARC and PKI – Paul Sorenson** **1 hour**
 - a. PKI Steering Committee Postings
 - i) Certificate Policy for Energy and Reliability Certificates
 - ii) Secure Data Exchanges in the Energy Infrastructure
 - iii) Application to E-Tag and OASIS 1A

- 5. E-Tag Issues – Andy Rodriquez** **2 hours**
 - a. Results of E-Tag Survey – Andy Rodriquez
 - b. Software Enhancements – Jim Hudson
 - c. Other

Interchange Subcommittee Meeting Agenda
December 2–3, 2003

- | | |
|---|----------------|
| 6. OASIS and E-Tag Registry – Barbara Rehman | 1 hour |
| a. Tsin.com and Registry Database Issues | |
| 7. Future Meetings – Secretary | 10 min. |
| a. Agenda Items for Next Meeting | |
| b. Calendar for 2004 | |

Item 1. Administrative

- a. Welcome and Introductions – Chairman
- b. Arrangements – Secretary
- c. Antitrust Guidelines – Chairman
- d. Approval of Agenda – Secretary

a. Welcome and Introductions – Chairman

The chairman will welcome the groups and request introductions.

b. Arrangements – Secretary

The secretary will review the meeting arrangements. The meeting begins on Tuesday, December 2 at 1 p.m. and adjourns at 5 p.m. The subcommittee will reconvene on Wednesday, December 3 at 8 a.m. and will adjourn at 12 noon. TISWG members and ITS members are welcome to attend the Interchange Subcommittee meeting that begins on Wednesday, December 3 at 1 p.m.

c. Antitrust Guidelines – Chairman

The chairman will call attention to the NERC Antitrust Compliance Guidelines and the NAESB Antitrust Guidelines.

Attachment

NERC Antitrust Compliance Guidelines

d. Approval of Agenda – Chairman

The chairman will announce agenda changes and ask for additional items.

Action

The chairman will ask for approval by unanimous consent.



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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 which 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

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:

- Organization Standards Process Manual
- Transitional Process for Revising Existing NERC Operating Policies and Planning Standards
- 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 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.

Item 2. Organization Update – Gordon Scott

- a. NERC Functional Model, SARs, Standards, and Transition
- b. Transaction Information System Working Group
- c. Information Technology Subcommittee
- d. Electronic Scheduling Subcommittee

Background

To stay up to date on the latest industry actions, including those of NERC and NAESB, that may affect the TISWG, the secretary and subcommittee chairman will provide updates on the following groups:

a. NERC Functional Model, SARs, Standards, and Transition – Gordon Scott

- i) The NERC Standing Committees approved version 2 of the NERC Reliability Functional Model
 - (a) Gordon Scott will review the changes to version 1 of the Functional Model and the proposed posting for public comment of version 2.
- ii) NERC Standards Process and transition to standards
 - (a) Gordon Scott will provide a review of those SARs and Standards under development including the two Standards posted for final approval, and the actions taken by the Transition Task Force to transition to the standards.

b. Transaction Information System Working Group – Monroe Landrum

- i) Monroe Landrum, chairman of the TISWG, will provide an overview of the group's scope. Mr. Landrum will lead the discussion on the role of the TISWG now that the OSC has completed its work.

c. Information Technology Subcommittee – Alan Johnson

- i) NAESB's IT Subcommittee is co-chaired by Alan Johnson and Monroe Landrum. Mr. Johnson will provide an update on the work of IT Subcommittee, its Mission Statement, and what communications and coordination should take place between the TISWG and the IT Subcommittee.

d. Electronic Scheduling Subcommittee – Joel Dison

- i) Joel Dison is chairman of the NAESB ES Subcommittee along with John Simonelli and Andy Rodriguez. The ES Subcommittee has scheduled their first meeting for December 15 – 16, 2003 in Washington, D.C. Mr. Dison will provide an overview of the ES Subcommittee's Mission Statement and what the group intends to accomplish.

Attachments

- 2.a Version 2 of the Functional Model is posted at: <http://www.nerc.com/~filez/ocmin.html>

November 2003 – NERC Standards Development Bulletin:
<http://www.nerc.com/~filez/standards/standards-bulletin-1103.htm>
- 2.b TISWG Scope
- 2.c IT Subcommittee Mission Statement
- 2.d.1 ES Subcommittee Mission Statement
- 2.d.2 ES Subcommittee meeting announcement and draft agenda

TRANSACTION INFORMATION SYSTEM WORKING GROUP (TISWG)

Purpose

The Transaction Information System Working Group (TISWG) of the Interchange Subcommittee (IS) is the group responsible for implementing NERC's transaction information system, commonly referred to as tagging.

Scope of Activities

1. Develop and maintain standards and functional specifications for tagging systems in accordance with NERC Operating Policy 3, "Interchange."
2. Develop and maintain technical specifications in support of the NERC tagging standards and functional specifications.
3. Recommend changes to the IS regarding tagging policy.
4. Provide a forum for the industry to discuss tagging system philosophies and specifications.
5. Provide guidance for the implementation and use of tagging in accordance with NERC tagging policies, standards, and specifications.
6. Sponsor training on NERC tagging policies and standards.
7. Review and test tagging systems for compliance with NERC tagging policies, standards, and specifications.
8. Work with Regional Councils and the Market Interface Committee to verify compliance with NERC Tagging requirements. This function will be transferred to the Compliance Committee at a later date.

Reporting

The TISWG reports to the NERC Interchange Subcommittee. Either the TISWG chairman or a designated TISWG member shall attend IS meetings.

The working group shall work in close concert with the Operating Reliability Subcommittee (ORS) and its Interchange Distribution Calculator Working Group (iIDCWG).

Membership and Attendance

- Chairman - Appointed by the IS Chairman
- Regional Representatives
- Marketing representatives
- Market Interface Committee Liaison
- NERC Staff Coordinator
- Others with specific expertise will be invited to attend as needed

Meeting Schedule

The working group will call meetings as necessary.

North American Energy Standards Board

Wholesale Electric Quadrant Information Technology Subcommittee Mission Statement October 8, 2003

The Information Technology Subcommittee is a technical subcommittee of the Wholesale Electric Quadrant Executive Committee assigned to develop standards and communication protocols for Open Access Same-Time Information Systems. The Information Technology Subcommittee will engage in, but is not limited to, the following activities:

- Maintain the OASIS Phase IA S&CP document once adopted by NAESB as a standard
- Actively develop standards and communication protocol [technical standards] for OASIS Phase II
- Work with NERC's TISWG to determine the future of the TSIN Registry
- Coordinate with NERC's PKI Task Force regarding the implementation of NERC's e-MARC policy.



North American Energy Standards Board

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Wholesale Electric Quadrant Electronic Scheduling Subcommittee Mission Statement October 24, 2003

The Electronic Scheduling Subcommittee is a subcommittee of the Wholesale Electric Quadrant Executive Committee assigned to develop business practice standards associated with Electronic Scheduling of power transactions as well as business practice standards associated with Open Access Same-Time Information Systems. The Electronic Scheduling Subcommittee will engage in, but is not limited to, the following activities:

- Adoption of the existing OASIS Business Practice Standards including those adopted by FERC in Orders 638 and 605.
- Maintain business practices associated with OASIS by facilitating future additions, modifications, and enhancements to those business practices
- In association with NERC's efforts to convert Policy 3 into appropriate Reliability and Business Practice standards, develop and maintain business practice standards associated with the NERC Electronic Tagging (E-Tag) process, including:
 1. Direct the efforts of the NAESB "Coordinate Interchange Business Practices Task Force" as they develop business practice standards related to NERC's "Coordinate Interchange Standard Drafting Team"
 2. Coordinate~~In association with NERC's efforts to convert Policy 3 into appropriate Reliability and Business Practice standards, work wi with NERC's TISWG regarding business practice issues associated with E-Tag implementation and Coordinate Interchange Standard Drafting Team to develop and maintain business practice standards associated with the NERC Electronic Tagging (E-Tag) process.~~
- Using the Use Cases and other deliverables of the Electronic Scheduling Collaborative as a model template,
 1. identify core functionality, design, and behavior of OASIS Phase II, and
 2. develop and maintain business practices necessary to implement OASIS Phase II.



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Via email and posting

TO: NAESB Wholesale Electric Quadrant (WEQ) Electronic Scheduling Subcommittee Meeting Participants and Posting for Interested Parties

FROM: Rae McQuade, Executive Director

RE: WEQ Electronic Scheduling Subcommittee Meeting Agenda – December 15 - 16, 2003

DATE: October 23, 2003

Dear NAESB WEQ Electronic Scheduling Subcommittee participants,

At the August Executive Committee meeting in Philadelphia, the WEQ Executive Committee (EC) created an Electronic Scheduling Subcommittee (ESS). The ESS will address OASIS 1A issues as identified and defined by the Electronic Scheduling Collaborative (ESC), the business practice components of the new OASIS II, and other standards development activities assigned to it by the WEQ EC. We were fortunate to have Mr. Andy Rodriguez of PJM Interconnection, Mr. John Simonelli of ISO-NE and Mr. Joel Dison of Southern Company representing our Executive Committee agree to co-chair the Electronic Scheduling Subcommittee.

The first ESS meeting is scheduled for December 15, 2003 from 12:00 p.m. to 5:00 p.m., and December 16, 2003 from 9:00 a.m. to 5:00 p.m. in Washington D.C. (All times Eastern.) A preliminary agenda follows. We will post meeting arrangements and any relevant work papers on the NAESB website (http://www.naesb.org/weq/weq_electronic_scheduling.asp) in downloadable format as soon as they are available. We will forward call-in instructions shortly for those who wish to participate by phone. If you are unable to attend the meeting, and would like to forward written comments, please do so by December 8. Please call the NAESB office (713-356-0060) if you have any questions.

This, as with all NAESB meetings, is an open meeting. We look forward to your attendance.

Best Regards,
Rae McQuade



North American Energy Standards Board

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North American Energy Standards Board Wholesale Electric Quadrant Electronic Scheduling Subcommittee

Preliminary Agenda December 15-16, 2003 - Washington, D.C.

Monday, December 15

- 12:00 p.m. 1. Welcome
- Welcome to attendees and Introduction of WEQ ESS leadership
 - Antitrust Guidelines
 - Introduction of Attendees
 - Adoption of Agenda
2. Review of WEQ ESS formation, scope and annual plan assignments
3. Update on Coordinate Interchange Business Practices Task Force
- 5:00 p.m. 4. Review of NAESB principles/objectives and procedures

Tuesday, December 16

- 9:00 a.m. 5. Review FERC Order 638 and documents to adopt those standards as NAESB standards
6. Subcommittee Vote to endorse **request** to adopt FERC Order 638 standards as NAESB standards
7. Review Order 605 for curtailment and schedule posting standards.
8. Discussion of work plan for OASIS 1A and OASIS II activities
- Creation of task force to examine open issues and assign priorities
9. Future Meetings
- 5:00 p.m. 10. Adjourn

More items may be added to this agenda by the co-chairs as it is finalized.

Item 3. OSC Transition – Monroe Landrum

- a. OASIS 1A Enhancements – J.T. Wood
- b. OASIS II Use Cases and Functional Requirements Document – Paul Sorenson

Background

Monroe Landrum will provide overview of the transition of OASIS from the OSC to NAESB and the next steps needed to continue work on OASIS.

The OSC provided a letter to NERC, NAESB, and the ISO/RTO Council entitled “OASIS Support, dated July 1, 2003. In that letter the OSC requested, “OASIS How Working Group members of the OSC would like to respectfully request the MOU Parties identify a process for the maintenance and enhancements of OASIS 1A.”

Subsequently the OSC worked with the ESC to develop Use Cases for OASIS II. The OSC and ESC provided a letter to the NAESB WEQ Executive Committee, NERC Market Committee, and ISO/RTO Council, dated October 6, 2003, entitled, “ESC Deliverables,” that discussed the development of a Standards and Communication Protocols document for OASIS II. The letter stated in part, “The ESC and OSC have completed the first phase of developing OASIS II. The OASIS II System Requirements document and Use Case Specifications, which describe the high-level functional requirements of OASIS II, are now complete. These documents will serve as the building blocks for the next phase of development, which is detailed business process design. The business process design can then be used by the newly formed NAESB Information Technology Subcommittee (ITS) to develop an OASIS II Standards and Communication Protocol (S&CP) document.”

a. OASIS 1A Enhancements – J.T. Wood

- i) J.T. Wood, chairman of the NAESB OASIS 1A Task Force, will provide an overview of the Task Force’s recommendations to the IT Subcommittee on OASIS 1A issues and enhancements.

b. OASIS II Use Cases and Functional Requirements Document – Paul Sorenson

- i) Paul Sorenson is a long-term member of the OSC and ESC and was instrumental in the development of OASIS II Use Cases and the associated Functional Requirements document. Mr. Sorenson will lead the discussion on these documents.

Attachments

- 3.1 OASIS Support letter dated July 1, 2003
ftp://www.nerc.com/pub/sys/all_updl/osc/Letter_NAESB_Transition_Jul_1_03.pdf
- 3.2 ESC Deliverables dated October 6, 2003
http://www.nerc.net/esc/files/Letter_Simonelli_ESC_100603.pdf
- 3.a OASIS 1A Issues – Letter from NAESB OASIS 1A Task Force
- 3.b Final Deliverables – Use Case Specification and System Requirements
<http://www.nerc.net/esc/Deliverables.asp>

Executive Summary

The following recommendations to address the OASIS issues listed below have been submitted by the WEQ OASIS 1A Issues Task Force for general approval by the WEQ IT Subcommittee. All issues have been documented and sub-divided into three categories (general issues, compliance/clarification issues, and specification/business practices issues). The goal of this task force is to recommend to the IT subcommittee an appropriate categorization of and resolution process for the twenty (20) OASIS Phase 1A issues listed in this document. A quick overview of the task force recommendations are presented first, followed by more detailed discussion under each specific issue.

OASIS 1A Issues (Quick Overview)

- 1. Additional Standardization in OASIS Phase 1A** (General)
- 2. GUI Issue/Navigation** (General)
- 3. Output Formats** (Specification)
- 4. INFO.HTM** (Compliance)
- 5. Posting of Schedules** (Compliance)
- 6. TLR & Curtailment Posting** (Compliance, Clarification)
- 7. Posting of Advertisements** (Clarification)
- 8. Upgrade Planning & Progression** (General)
- 9. Responsibility Determination** (General)
- 10. Redirect of Transmission Service** (Specification/Business Practice)
- 11. Recalls of Transmission Service** (Business Practices)
- 12. Multiple Submissions of Identical Transmission Requests / Queuing Issues** (Specification/Business Practice)
- 13. Population of System Data** (Compliance)
- 14. Ancillary Service Requests and Purchases** (Compliance)
- 15. ATC Updates** (Business Practice)
- 16. NAESB Implementation of a Compliance Program** (General)
- 17. Announcing / Posting of OASIS Outages** (Specification)
- 18. This issue originally was one item; now broken into three separate items.**
 - 18(a). Standardized Process for NITS service on OASIS Part I** (Compliance)
 - 18(b). Standardized Process for NITS service on OASIS Part II** (Business Practice)
 - 18(c). Standardized Process for NITS service on OASIS Part III** (Compliance, Clarification)
- 19. Posting Reference Field** (Compliance)
- 20. This issue originally was six items; now condensed down to one item.**
 - 20. Other Items Naming Standardization** (Specification/Business Practices)

OASIS 1A Issues

General Issues

1. Additional Standardization in OASIS Phase 1A

Should additional standards be written for OASIS 1A while beginning OASIS Phase II initiatives? (General)

Additional standards should be written and outstanding issues addressed for OASIS Phase 1A. With all the unknowns surrounding OASIS Phase II it makes sense that the WEQ IT Subcommittee becomes involved in enhancing and maintaining the standards for OASIS Phase 1A while developing OASIS Phase II.

2. GUI Issue/Navigation

Over the years there has been debate over the standardization of the HTML interface to OASIS. HTML “look & feel” requirements were intentionally left out of the S&CP.

The overwhelming majority of the OASIS How Working Group opposed the standardization of the HTML interface to OASIS. The reality is that, with the standardization of the CSV templates across OASIS nodes, vendors have the ability to provide a single interface to all OASIS nodes.

The GUI issue may have deeper roots in customer complaints and “free” OASIS usage. In other words, users of OASIS want a single “look & feel” and they want it at no cost.

If standards were made concerning the HTML interface to OASIS, how would they be policed? What would be the scope of these standards? Would providers have the ability to offer a standard interface as well as an enhanced interface? (General)

At this time standardization of the HTML interface would not be beneficial and therefore not needed. With the existence of the current S&CP standards and with compliance issues resolved, standard template queries and responses should allow any Transmission Customer to perform the same functions across many OASIS nodes in virtually identical fashion.

8. Upgrade Planning & Progression

Should OASIS changes be incremental? Who determines if a modification is mandatory or voluntary or both? If a modification is voluntary, how can compliance be monitored? (General)

OASIS 1A Issues

Anytime an incremental change in OASIS standards is adopted, the change will include a migration and testing plan as part of that standard. Mr. Burden (Williams Gas Pipeline) noted that the Wholesale Gas Quadrant (WGQ) has an Interpretations Subcommittee to resolve issues of standards interpretation. It was suggested that the WEQ employ a similar approach.

9. Responsibility Determination

Who is responsible for the categorization of issues? For example, given an issue, who determines if it is an implementation issue, a compliance issue, or a technical issue? (General)

There was no consensus proposal for this issue. However, it seems obvious that NAESB and/or NERC should be the governing bodies in determining an appropriate categorization and resolution of OASIS issues.

16. NAESB Implementation of a Compliance Program

Should an OASIS Compliance program be implemented? (General)

It was noted that this issue was discussed during the October IT meeting and was determined that NAESB does not perform a compliance function. Further, it was made clear that compliance was a function to be completed by FERC and that FERC does have a hotline established to handle compliance issues.

Compliance/Clarification Issues

4. INFO.HTM

The posting of information in the INFO.HTM file is inconsistent. The availability of the file across providers is also inconsistent.

Should additional standards be written to clarify the information and design of INFO.HTM? How should non-compliance be monitored? (Compliance)

It is clearly specified in the S&CP as to which documents should be posted. It is also noted that OASIS homepages also contain all the information contained in INFO.HTM files.

5. Posting of Schedules

There is a need for compliance on the use of the OASIS template “scheduledetail” for queries and responses associated with schedules and curtailments/interruptions (see OASIS S&CP section 4.3.4.1). This is the template where FERC requires information specific to an individual schedule. There is a tendency to use the tag for this information; however, the OASIS data is currently the required source for audit information associated with schedules and curtailments/interruptions. (Compliance)

OASIS 1A Issues

There is a compliance issue with some Transmission Providers (TPs) not posting this information.

6. TLR & Curtailment Posting

There is a need for compliance on use of the OASIS template “security” for queries and responses associated with security events such as curtailments or TLR's (see OASIS S&CP section 4.3.4.2). This is the template where FERC requires information specific to the event, such as facilities involved, start time of the event, etc. Currently, the NERC website provides a central repository for such information associated with the Eastern Interconnection. There is a need to add Western Interconnection information to this repository. (Compliance, Clarification)

There is a compliance issue in the way that some TPs post the required events and what type of events are posted. There also is a clarification issue in regards to which events should be posted.

7. Posting of Advertisements

Should the posting of related and/or unrelated advertisements be allowed on OASIS nodes? (Clarification)

S&CP is somewhat vague in this area. A clarification is needed on this issue to more clearly define what types of messages are permissible. Note that this issue is complicated by the fact that many OASIS sites are hosted by external companies and a “hosted by” reference could be viewed as an advertisement..

13. Population of System Data

There is a need for compliance with the S&CP on use of the OASIS template “systemdata” for queries and responses associated with ATC/TTC, etc. (see OASIS S&CP section 4.3.4.4).

This is the template that must be populated in order to meet FERC requirements associated with uploads and downloads of ATC/TTC data. Prior to publication of the S&CP version 1.4, the S&CP required provision of ATC/TTC data through use of the “transoffering” template.

When FERC required CBM data on OASIS, uploads and downloads of CBM were combined with all other system attribute data through the use of "systemdata". At the same time, use of “transoffering” for ATC/TTC data became optional. (Compliance)

S&CP already specifies the use of “systemdata”; thus it appears that some TPs may not be in full compliance with the “systemdata” template.

14. Ancillary Service Requests and Purchases

There is a need for compliance on use of the several ancillary services templates in OASIS for queries and responses associated with the sale and purchase of ancillary services. FERC requires this under Order 889, and as revised. This priority may be lower

OASIS 1A Issues

due to the complexities involved and chaos in the industry associated with ancillary services, in addition to the somewhat rigid methodology provided for in the current OASIS S&CP. This will also be a requirement under OASIS II. (Compliance)

Compliance issue, the S&CP already specifies how to handle this type of service.

18. Standardized Process for NITS service on OASIS

Part(a)

Overall problem of misusing the different status indicators, e.g. setting a request to REFUSED because the request was incomplete. There is a need for a uniform interpretation of the S&CP. Specifically, making sure that similar conventions and data definitions are employed on all nodes. (Compliance)

This issue is a compliance issue dealing with the misuse of the status indicators.

18. Standardized Process for NITS service on OASIS

Part(c)

Some providers post things in “blocks” (i.e., an on-peak block), while others post everything in hourly increments (i.e., 24 discrete values). Another might be that some providers respond to a TRANSSTATUS by using CAPACITY REQUESTED and STATUS to allow a customer to derive CAPACITY_GRANTED, while other providers specifically indicate CAPACITY_GRANTED (and some only use CAPACITY_GRANTED if it differs from CAPACITY_REQUESTED).

There are different implementations all have their own unique flavor that have to be coded around. “If PROVIDER =” type statements must be written in order to catch all the node specific implementation details. Obviously you can write exception rules to deal with it, but you shouldn't have to.

If we did some standard queries against all the nodes and compared the data, we'd probably find some interesting differences. If there are valid reasons for the differences, then they should be codified in the S&CP or in Order 638. If not, they should be clarified to ensure uniform interpretation and the nodes modified to meet the clarified S&CP.

The standardization issue above is probably a good idea but it might be a little late unless we see the existence of OASIS according to the S&CP 1.4 continuing more than a couple of more years.

The key question is, is it a matter of S&CP 1.4 implementation (i.e., template access) or is it a really a matter of a TP's tariff (i.e., data content). It would not seem you could affect change to the latter (e.g., your reference to “block” vs. hourly), only the first (e.g., element name usage discrepancies).

Many solutions and associated support systems have been built around the different

OASIS 1A Issues

interpretations and implementations as they are today. Some companies may not be inclined to incur the cost to make significant changes, unless a clarified standard is issued.

A submission to FERC would be required since they are the ones responsible for enforcement of the OASIS S&CP. A validation suite should be developed. (Compliance, Clarification)

The third part of this issue was identified as a technical clarification issue that needed to be clarified and provided by the WEQ IT Subcommittee.

19. Posting Reference Field

The posting reference is a reference number that must identify the offers being posted on OASIS. The offer posting is in fact a combination of the ATC and the system data, reservations and the price information. When this data is combined to present the offers on the system the posting reference has no real meaning, as it is not clear which of the base items posting identifier is to be used. This worked fine in the past when the system data and the offers were not posted separately. This is a change or a clarification on the purpose of the post ref field. (Compliance)

The S&CP provides guidance on the posting reference field in Section 4.3.7.1 and therefore becomes a compliance issue.

Specification/Business Practices Issues

3. Output Formats

Should additional output formats, such as XML, be added to the S&CP? (Specification)

At this time there is not a need for making a massive change in the way output formats are generated. The S&CP standards for OASIS Phase 1A are the accepted way to communicate output formats at this time and does not need changing. Perhaps in OASIS Phase II the potential benefits of XML can be considered.

10. Redirect of Transmission Service

Using OASIS to process and record redirects of transmission service is a difficult task. There are many issues related to the redirect and resale functionality, but most are caused by provider business rules or vendor design choices.

The primary issue concerns redirects of transmission service. The current OASIS standard does not facilitate primary provider approval of redirected transmission when that redirect is using resold (reassigned) transmission service. When transmission rights are resold to another customer, the customer on the original request is the seller on the resale request. In this case, the primary provider responsible for administering ATC no longer has approval rights for any future transactions, such as REDIRECTS, that use this

OASIS 1A Issues

resold or reassigned transmission service. This is only an issue when the 2nd customer wants to redirect transmission usage to a constrained path. Currently, unless the provider intervenes on the backend, that provider only has the option to deny this type of transaction when it is tagged. (Specification/Business Practice)

This issue, since it is not addressed in the S&CP, is ripe for standardization. It was suggested that the IT and ESS work jointly on this issue as both a technical and business practices effort.

11. Recalls of Transmission Service

Recall allows a provider to reduce the capacity or duration of a transmission request. The issue with recalls concerns implementation and may be an issue to address at the provider/vendor level. However, clarification is needed.

When a provider recalls a transmission request that is a REDIRECT, should capacity be returned to the impacted request? When a provider recalls any impacting request type, should capacity be returned to the impacted request? If so, should a provider post reductions for the entire “chain” of requests? (Business Practices)

This issue also is not addressed in the S&CP and needs standardization through business practices process.

12. Multiple Submissions of Identical Transmission Requests / Queuing Issues

OASIS business rules are very similar across most providers. In general, customers submitting transmission request have time periods when they can “queue” their requests. This queue process and the way it relates to the Internet can create issues when customers are “battling” for ATC on constrained interfaces.

Many customers have automated the submission of transmission requests. In order to ensure their place in the queue, these customers schedule these requests to be submitted as a scheduled event. To account for delays caused by the Internet and the nature of web server systems, customers usually submit multiple copies of the same request beginning a few minutes before the top of the hour and lasting until well after the top of the hour.

The issues created by duplicate request submittal are fairly straightforward. Backend systems and the operators working those systems are impacted dramatically. Each request that arrives after the top of the hour is a valid request. Therefore, the provider can have hundreds of requests in the queue that will never be confirmed.

Other issues that are created are related to OASIS performance. Anyone using transstatus to retrieve a list of OASIS requests submitted during a time period similar to the one described above can receive hundreds of bogus requests and only a hand full of legitimate requests. Also, while the systems are busy working on the bogus requests, valid requests can be delayed due to bottlenecks created by this issue. Does there need to be a standard

OASIS 1A Issues

to limit these issues? Will FERC Order 605 address this issue? (Specification/Business Practice)

This issue should be worked on as both a technical and business practice modification. This was discussed at length and the discussion revealed this is a very complex issue that needs to be resolved. (Note that the MIPS attempted to address this issue a couple of years ago, but their recommendations were turned down by the MIC).

15. ATC Updates

There is a need to revisit the FERC requirement for ATC adjustments and posting updates. In Order 638, FERC requires adjustments to ATC off-line (internally) when the Transmission Provider accepts reservation requests and then on-line, following confirmation, the ATC posting is to be updated. FERC reasoned that use of this two-step method should reduce the number of accepted requests that will be denied service. This methodology tends to encourage delayed acceptance responses from Transmission Providers and has been a trigger for discontent expressed by marketers.

Over the last 3-4 years, there have been significant advances in the automation of backend systems, including calculation of ATC, which interface with OASIS. Revision of ATC postings can be made earlier now and with more certainty than before, so Transmission Providers can avoid the denials of service that once were more frequent due to ATC calculation uncertainties. A pilot project should be designed to test the concerns surrounding denial of service under a one-step method where ATC would only be adjusted upon confirmation. (Business Practice)

While a consensus was not arrived at on this issue it might be noted that the S&CP does not address this issue but Order 889 Part 37.6b does. The definition of the data to be posted for each path is available [here](#).

17. Announcing / Posting of OASIS Outages

OASIS Outage posting is inconsistent across OASIS nodes. Some nodes send messages to an email list, such as tsin@nerc.com or osc@nerc.com. Other nodes send a message to a list managed by that TSIP.

Section 4.3.10.1 of the S&CP requires providers to post outages “When the OASIS node is out of service and transmission requests are received by the TP by phone or fax.” Using the message template, OASIS users can download this information. All other postings of outages are at the discretion of the provider.

The reality is that many providers leave the posting of node outages to the TSIP. Therefore, the provider has the obligation to make sure that the TSIP is posting outage information on the provider’s behalf.

OASIS 1A Issues

The message functionality was added to provide a standard for the posting of specific messages, such as node outage information. All OASIS outages can be posted using this standard and customers will have unilateral access to this data using the message template.

Should additional standards be implemented? How can compliance with this requirement be monitored? (Specification)

There was a consensus that this is a technical compliance issue, but no consensus was reached on a method to include in this recommendation to the IT. It was also noted that messages posted on a message board are ineffective when the website is not operational. The following recommendation was suggested – OASIS nodes must have the ability to accept an email notification and then that mechanism will be used for posting notices.

18. Standardized Process for NITS service on OASIS

Part(b)

Examples:

Standardized process for NITS service on OASIS:

- a) Initial service application procedure
 - b) Designation of network resources
 - c) Addition of network resources
 - d) Elimination of network resources
- (Business Practice)

The enumerated standardization process was identified as a business process issue that should be referred to the ESS.

20. Other Items

1) Naming Standardization

Standardization for items such as service points is a continuing problem in OASIS and should be addressed. (Specification/Business Practices)

This confusion over multiple names for the same physical point(s) has been a long standing issue. The major issue was identified as follows: at a point of interconnect between two providers, how is the point name established and agreed-upon such that the name is used consistently for both parties. It was agreed that this would be both a technical and business process change.

Item 3. OSC Transition – Monroe Landrum

- a. OASIS 1A Enhancements – J.T. Wood
- b. OASIS II Use Cases and Functional Requirements Document – Paul Sorenson

Background

Monroe Landrum will provide overview of the transition of OASIS from the OSC to NAESB and the next steps needed to continue work on OASIS.

The OSC provided a letter to NERC, NAESB, and the ISO/RTO Council entitled “OASIS Support, dated July 1, 2003. In that letter the OSC requested, “OASIS How Working Group members of the OSC would like to respectfully request the MOU Parties identify a process for the maintenance and enhancements of OASIS 1A.”

Subsequently the OSC worked with the ESC to develop Use Cases for OASIS II. The OSC and ESC provided a letter to the NAESB WEQ Executive Committee, NERC Market Committee, and ISO/RTO Council, dated October 6, 2003, entitled, “ESC Deliverables,” that discussed the development of a Standards and Communication Protocols document for OASIS II. The letter stated in part, “The ESC and OSC have completed the first phase of developing OASIS II. The OASIS II System Requirements document and Use Case Specifications, which describe the high-level functional requirements of OASIS II, are now complete. These documents will serve as the building blocks for the next phase of development, which is detailed business process design. The business process design can then be used by the newly formed NAESB Information Technology Subcommittee (ITS) to develop an OASIS II Standards and Communication Protocol (S&CP) document.”

a. OASIS 1A Enhancements – J.T. Wood

- i) J.T. Wood, chairman of the NAESB OASIS 1A Task Force, will provide an overview of the Task Force’s recommendations to the IT Subcommittee on OASIS 1A issues and enhancements.

b. OASIS II Use Cases and Functional Requirements Document – Paul Sorenson

- i) Paul Sorenson is a long-term member of the OSC and ESC and was instrumental in the development of OASIS II Use Cases and the associated Functional Requirements document. Mr. Sorenson will lead the discussion on these documents.

Attachments

- 3.1 OASIS Support letter dated July 1, 2003
ftp://www.nerc.com/pub/sys/all_updl/osc/Letter_NAESB_Transition_Jul_1_03.pdf
- 3.2 ESC Deliverables dated October 6, 2003
http://www.nerc.net/esc/files/Letter_Simonelli_ESC_100603.pdf
- 3.a OASIS 1A Issues – Letter from NAESB OASIS 1A Task Force
- 3.b Final Deliverables – Use Case Specification and System Requirements
<http://www.nerc.net/esc/Deliverables.asp>

Item 4. e-MARC and PKI – Paul Sorenson

- a. PKI Steering Committee postings
 - i) Certificate Policy for Energy and Reliability Certificates
 - ii) Secure Data Exchanges in the Energy Infrastructure
 - iii) Application to E-Tag and OASIS 1A

Background

On May 23, 2003 the OSC provided a request to NAESB, "Request for Initiation of a NAESB Standard for Electronic Business Transactions or Enhancement of an Existing NAESB Standard for Electronic Business Transactions." The requested standard would:

Enhance the current OASIS Standards and Communications Protocols (S&CP) to ensure compliance with the Energy Market Access and Reliability Certificates (e-MARC) Security Initiative, currently being developed and implemented by the North American Electric Reliability Council. E-MARC is the certificate policy that will implement a Public Key Infrastructure (PKI) for securing digital communications in all standardized wholesale electricity data exchanges.

a. PKI Steering Committee Postings

- i) The NERC's Public Key Infrastructure (PKI) Steering Committee (PKISC) has posted its draft "Certificate Policy for Energy Market Access and Reliability Certificates (e-MARC)" for review and comment by November 28. Paul Sorenson will lead the discussion on the posted document including implementation, certification, costs, and architecture

Action

The group should discuss submitting belated comments to the posting.

Attachments

- 4.1 OSC Standards request to NAESB is located at: https://www.nerc.net/esc/files/PKI_Standard_4-23-03.pdf
- 4.a The PKI e-MARC document is located at: <https://www.nerc.net/comments/>

Item 5. E-Tag Issues – Andy Rodriquez

- a. Results of E-Tag Survey
- b. Software enhancements
- c. Other

Background

The Interchange Subcommittee submitted an E-Tag enhancement survey to the industry on November 18, 2003 with comments due by end-of-day November 25. Andy Rodriquez will discuss the survey results and the next steps in the enhancement process, and issues surrounding E-Tagging.

The TISWG should make recommendations to the Interchange Subcommittee on the potential enhancements. The group will discuss other potential enhancements to E-Tagging, enhancements not in the survey. The group should also discuss the E-Tag specification and where that specification should reside – NERC, NAESB etc.

a. Results of E-Tag Survey – Andy Rodriquez

- i) Mr. Rodriquez will present the compiled results of the survey to the group. The initial results show that the survey received an excellent response.

b. Communication of E-Tag Code Changes – Jim Hudson

- i) Jim Hudson, Bonneville Power Administration, will discuss a problem that BPA faced with vendor communications. The WECC's ISAS discussed this problem at their latest meeting and requests the TISWG and Interchange Subcommittee take action on this problem, see attachment 5.b.2.

Attachments

- 5.a E-Tag Survey dated November 18, 2003: <http://www.nerc.net/survey1/>
- 5.b.1 Jim Hudson email on E-Tag communications problem
- 5.b.2 WECC ISAS letter to the TISWG and Interchange Subcommittee

Attachment 5.b.1 - Software Enhancement from Jim Hudson.txt

From: Hudson, Jim - PGGB-6 [jehudson@bpa.gov]
Sent: Monday, November 17, 2003 2:22 PM
To: 'tiswg@nerc.com'
Subject: Agenda Item for December TISWG Meeting

This email was sent to the tiswg List Serve

Monroe Landrum,

I would like for you to add an agenda item for ETag change implementation to the December TISWG meeting.

The background is that we had a production problem last Thursday with ETags that took us several hours to figure out what was going on. This is what happened:

We (BPA Power, a PSE who uses Sungard for our tag agent service) created several tags where BPAT is the authority service. BPAT (a CA Softsmiths authority service) accepted the new tag and attempted to distribute it to all the necessary parties. Some of the message distribution recipients rejected the message as invalid. In this case it was Glendale(PSE & TP), LDWP (CA), CISO (security coordinator), PNW(security coordinator). (All these entities use OATI). There was no indication in our XML communication logs of what was causing the tag to be invalid. Out logs simply listed a delivery status of invalid and placed an "I" in the invalid indicator column of our tag manager. After some digging and phone calls we discovered from the BPAT logs that on physical segment 3 which was a segment involving the DC tie, we were missing a BPAT as a scheduling entity. So the solution to the problem was to add BPAT to the scheduling entity field.

It turns out that OATI modified their software last Thursday to begin to enforce a tag validation edit that has been in the ETag specification since last January. The validation edit is appropriate and I think it is beneficial.

My problem is the process for implementing the change.

At least a software provider who is making a change that they believe will impact other software providers should post on an industry email list a notice with a description of the change and an implementation time.

At best, tagging software changes to implement specification changes should be planned, tested and implemented by all software providers at the same time.

Jim Hudson
Bonneville Power Administration
(503) 230-7478

You are currently subscribed to tiswg as: Gordon.Scott@nerc.net
To unsubscribe send a blank email to leave-tiswg-19468P@listserv.nerc.com

Modifications in On Line NERC authorized E-Tag code affecting the TSIN Registered entities may not be modified following interoperability testing, nor after a given date set by the established reliability authority without proper advance notice to the users. Inter-vendor testing establishing effective performance as a result of proposed changes must be demonstrated prior to being placed in service. The proposed changes and performance demonstration must meet the approval of the Reliability Authority prior to being placed into service.

Modifications in On Line code to correct a lack of conformance to NERC authorized E-Tag code specification affecting any TSIN Registered entity will not be done until the established reliability authority approves the code changes. The code modifications will not be placed in service until after proper advance notice to the users is given and inter-vendor performance demonstration meets the approval of the Reliability Authority.

The means of communication of code changes to E-Tag code will be through a group Email of TSIN registered entities sent by the reliability authority. The minimum notice period to users is 30 calendar days.

Item 6. OASIS and E-Tag Registry – Barbara Rehman

a. Tsin.com and Registry database issues

Discussion

Barbara Rehman will lead the discussion on who should operate and maintain tsin.com, the OASIS home page, and the registry database. The group should discuss E-Tagging use of the registry and others uses of the registry.

FERC Order 638 provides the following in support of tsin.com:

- Requires TPs to use tsin.com for registration to track OASIS users, transmission providers, and transmission provider services.
- Allow third party operators to recover reasonable fees from transmission providers.
- Affirms transmission provider responsibility to ensure the Home Page is properly operated.

Attachment

6.1 New Registration for OASIS and Interchange Transaction Tagging

New Registration for OASIS and Interchange Transaction Tagging

The OASIS How Working Group, facilitated by the North American Electric Reliability Council and EPRI, is pleased to announce the startup of a new registration process that integrates OASIS and NERC Interchange Transaction Tagging information into a single online database, providing reliable, accurate information to support OASIS and tagging activities. Features of the new registration process include:

- One seamless, interactive process for registering Transmission Providers (TP), Control Areas (CA), and Security Coordinators (SC), Transmission Customers/Purchasing-Selling Entities (TC/PSE), OASIS Nodes, and Observers for inclusion in one online database;
- Data consistency between OASIS and NERC tagging applications;
- Online forms for transmission providers to enter never-before registered data: POD/POR and non-standard product attributes as required under OASIS Phase 1-A and CPWG's OASIS Phase 1-A Business Practices Report to FERC;
- interactive error-checking and off-line validation of all registered data, including DUNS numbers and Entity Codes;
- secure access to your registered information for quick and easy updating, and,
- the ability to download registration information in both CSV and Access 97 formats.

Registration will be phased to allow the orderly development of the new database. Operating/Security Entities, which include Transmission Providers, Control Areas, and Security Coordinators, will register first beginning today through **November 30, 1998**. Information about the business identity, including DUNS number, Entity Code and Contact information will be required, as will registration of Scheduling Desks. Registration of POD/POR and non-standard transmission product attribute values by Transmission Providers will commence now through January 31, 1999. Although not a requirement, the HWG recommends that Operating/Security Entities use their current tagging codes as their Business Entity Codes. The new registration process reserves existing codes for use by the entity that registered it under the previous registration process. An Operating/Security Entity that serves as a TP, CA, and/or SC need only register the Business Entity once.

Transmission customers/purchasing-selling entities will register between **December 1 and December 31, 1998**. A TC/PSE may not use the same DUNS number or Entity Code as a registered Operating/Security Entity. Each TC/PSE should be aware that the Entity Code will be limited to four alphanumeric. Each TC/PSE may register multiple scheduling desks, identified using the four-character entity code plus a "desk code" — two additional alphanumeric characters of your choosing — to uniquely identify each desk. The new code structure allows TPs, CAs, and TC/PSE's to continue to use existing software for NERC Interchange Transaction Tagging. Most TC/PSEs will be able to retain their codes, and in fact, are urged to do so. But, in some cases, new codes will be required.

Registration Schedule

Who	When	What
O/SE (TP,CA,SC)	Now - November 30, 1998	<ul style="list-style-type: none"> • Business Entity Information • Scheduling Desk Information
TP	Now - January 31, 1998	<ul style="list-style-type: none"> • POD/POR • Non-standard Transmission Product Attribute Values
TC/PSE	December 1 - December 31, 1998	<ul style="list-style-type: none"> • Business Entity Information • Scheduling Desk Information
OASIS Nodes Observers	January 1 - January 31, 1999	<ul style="list-style-type: none"> • Business Entity Information

The registration database will become effective for use in OASIS and tagging applications on **March 1, 1999**, coincident with the start of OASIS Phase 1-A.

The cost of registration is \$100/year. The fee covers the maintenance of the registration site and the OASIS home page at www.tsin.com. Payment is expected at time of registration.

You can find the new registration site at www3.nerc.com/oasis or from the Provider Registration link at www.tsin.com.

Registration instructions are located at www3.nerc.com/oasis/help.html. If you have questions about the registration process or registration requirements, please contact Gerry Cauley: gcauley@worldnet.att.net. To report problems or suggest improvements to the new web site, go to www3.nerc.com/oasis/help/add_comment.asp.

Item 7. Future Meetings – Secretary

- a. Agenda Items for Next Meeting
- b. Calendar for 2004

Background

The group should discuss if and when a next meeting of the TISWG is needed, and what potential agenda items would be included in the meeting agenda.

Attachment

- 7.1 Meeting Calendar for 2004

January

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

RS - Ft. Lauderdale

2004

February

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	3	4	5	6	7
		RCWG/ORS – Scottsdale			Same hotel as BOT if not too expensive.	
	IS – Scottsdale					
		TS – Scottsdale				
			Joint-am	BOT – Scottsdale		
8	9	10	11	12	13	14
		PS – New Orleans				
15	16	17	18	19	20	21
			OC Agenda Material Due			
22	23	24	25	26	27	28
29						

March

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3 OC Agenda Posting	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
	Standing Committee Meetings – Baltimore, MD					
21	22	23	24	25	26	27
28	29	30	31			

2004

April

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
		PS – San Diego				
18	19	20	21	22	23	24
			Joint – pm			
		RCWG/ORS – San Diego				
				IS – San Diego		
				TS – San Diego		
25	26	27	28	29	30	
			RS – Memphis			

2004

May

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

2004

June

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
	BOT – Toronto, ONT		Joint – pm			
			ORS–Toronto			
				IS – Toronto		
				TS – Toronto		
20	21	22	23	24	25	26
					OC Agenda Material Due	
27	28	29	30			
		PS – Montréal				

Same hotel as BOT if not too expensive or nearby.

July

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7 OC Agenda Posting	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
	Standing Committee Meetings – Vancouver, BC					
25	26	27	28	29	30	31
			RS – Montréal			

2004

August

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
		PS - Cleveland				
29	30	31				

2004

September

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
			Joint - am			
		RCWG/ORS - Boston				
		IS - Boston			Downtown hotel, maybe near Copley Square. NOT at the airport!	
		TS - Boston				
19	20	21	22	23	24	25
26	27	28	29	30		

2004

October

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2
3	4	5	6	7	8	9
			RS - To be determined			
10	11	12	13	14	15	16
			OC Agenda Material Due	BOT - DC		
17	18	19	20	21	22	23
		PS - Philadelphia				
24	25	26	27	28	29	30
			OC Agenda Posting			
31						

2004

November

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3	4	5	6
7	8	9	10	11	12	13
	Standing Committee Meetings – Kansas City, MO					
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

2004

December

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			1 Joint - am	2	3	4
		RCWG/ORS - Ft. Lauderdale				
		IS - Ft. Lauderdale				
		TS - Ft. Lauderdale				
5	6	7 PS - Ft. Lauderdale	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

2004