NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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

NERC-NAESB-ISO/RTO Council Joint Interface Committee Meeting
February 18-19, 2004
Wyndham
New Orleans, La
1-5, 8-4 Central

Meetings are business casual

1. Welcome
    a. Introductions and quorum
    b. Antitrust statement
    c. Agenda approval

2. Review of the NERC-NAESB-IRC MOU (M. Desselle)
    a. Role of the JIC
    b. Voting procedures

3. Review proposals for NAESB Business Practice Standards (Action)
    a. 3 OASIS-related business practice standard proposals
        i. Acceptance of the current OASIS Business Practice Standards and Communication Protocol Standards.
        ii. Acceptance of the NAESB IT subcommittee's recommended actions on the OASIS 1A issues that were left over from the OASIS Scheduling Collaborative.
        iii. Review existing OASIS standards and Commission proceedings and develop a body of standards that would be considered OASIS Phase 2.

4. Annual Plan Coordination
    a. Review/Discuss final plans

5. Discuss ISO/RTO Seams catalogue (Action)
    a. Designate appropriate organizations for issue resolution

6. Future Meetings

7. Adjourn

Those wishing to join via conference call may do so by dialing 888-810-3142. The pass code is "JIC" and the conference leader is "McQuade".

Background Information for Item 1

None

Background Information for Item 2

Michael Desselle will review the role of the JIC and its voting procedures, as outlined in the memorandum of understanding signed by NAESB, NERC and the IRC.

Attachment: None

Action: None

Background Information for Item 3 – NAESB Business Practice Standards Proposals

Lou Oberski will present the three requests. Request R04005 represents standards already adopted by FERC in FERC Order Nos. 605, 638 and 889 – addressed as OASIS standards. With NAESB adoption of these standards as applicable to FERC jurisdictional entities, the procedures are in place for NAESB to modify these standards and after review by FERC, FERC may choose to adopt these changes through incorporation by reference into the existing regulations. Request R04006 addresses changes to the standards in R04005, packaged as OASIS 1A. These standards modifications are needed to more accurately reflect today's market conditions. Request R04007 addresses more substantive changes packaged as OASIS 2.

Attachment: Proposals R04005, R04006, R04007 and their applicable attachments (which will be sent under separate cover, due to their size)

Action: Assign proposals for business practice standards to the NAESB process for development.

Background Information for Item 4 – Annual Plan Coordination

Consistent with the NERC-NAESB-IRC memorandum of understanding, each organization will develop and share its annual plan for standards development with the goal of reducing overlap and duplication and to coordinate the development of complementary standards. Draft 2004 annual plans were reviewed and discussed in September 2003. The final plans will be reviewed at this meeting.

Attachments:

2004 Annual plans of the IRC, NAESB and NERC.

Action:

None.

Background Information for Item 5 – Discussion of ISO/RTO Seams Catalogue

NAESB's Seams Subcommittee prepared a comprehensive list of seams issues between ISOs and RTOs. Policy, reliability, and business practice issues are all included in this list. JIC members will review the issues and will be asked to designate each issue to NAESB, NERC, or the IRC at the meeting.

Attachments:

Seams Catalogue developed by the NAESB Seams Subcommittee.

Action:

Review seams issues; designate appropriate organization for issue resolution.

Background Information for Items 6-7

None.

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction or Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Instructions:

1. Please fill out as much of the requested information as possible. It is mandatory to provide a contact name, phone number and fax number to which questions can be directed. If you have an electronic mailing address, please make that available as well.

2. Attach any information you believe is related to the request. The more complete your request is, the less time is required to review it.

3. Once completed, send your request to:

   Rae McQuade
   NAESB, Executive Director
   1301 Fannin, Suite 2350
   Houston, TX 77002

   Phone: 713-356-0060
   Fax: 713-356-0067

   by either mail, fax, or to NAESB's email address, naesb@aol.com.

Once received, the request will be routed to the appropriate subcommittees for review.

Please note that submitters should provide the requests to the NAESB office in sufficient time so that the NAESB Triage Subcommittee may fully consider the request prior to taking action on it. It is preferable that the request be submitted a minimum of 3 business days prior to the Triage Subcommittee meetings. Those meeting schedules are posted on the NAESB web site at http://www.naesb.org/monthly_calendar.asp.

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Date of Request: December 29, 2003

1. Submitting Entity & Address:

   Southern Company Services
   600 North 18th Street
   Birmingham, AL 35291

2. Contact Person, Phone #, Fax #, Electronic Mailing Address:

   Name : Mr. Joel Dison
   Title : Manager of Market Policy
   Phone : (205) 257-6481
   Fax : (205) 257-6824
   E-mail: jjdison@southernco.com

3. Description of Proposed Standard or Enhancement:
   We propose the WEQ's acceptance of the current OASIS Business Practice Standards and Communication Protocol Standards.

4. Use of Proposed Standard or Enhancement (include how the standard will be used, documentation on the description of the proposed standard, any existing documentation of the proposed standard, and required communication protocols):

   The business practice standards are designed to implement the Commission's policy related to on-line price negotiation and to improve the commercial operation of the Open Access Same-Time Information System (OASIS). Complete documentation of the business practice standards and the related communication protocols is attached to this request:

   - Federal Energy Regulatory Commission Business Practice Standards

for Open Access Same-Time Information System (OASIS) Transactions, Version 1.2, issued October 25, 2000 (Attachment A).

- Standards and Communication Protocols for Open Access Same-Time Information System (OASIS), Version 1.4, July 26, 2000 (Attachment B).
- Data Dictionary, Standards and Communication Protocols for Open Access Same-Time Information System (OASIS), Version 1.4, July 26, 2000 (Attachment C)
- Revisions to Section 4.2.10.2 of the S&CP Document, 4.2.10.2, Status Values (Attachment D).
- Oasis Version 1.4 corrections, outlined in a letter dated January 30, 2001, from Paul R. Sorenson, OSC Chair, to David P. Borgers, Office of the Secretary, Federal Energy Regulatory Commission (Attachment E).
- FERC Order 605 (Attachment F).
- FERC Order 889 (Attachment G).
- FERC Order 889 Appendix A Data Element Dictionary (Attachment H).
- FERC Order 889 Appendix B Request (Query) Variables (Attachment I).

5. Description of Any Tangible or Intangible Benefits to the Use of the Proposed Standard or Enhancement:

   The industry and the Commission have already ascertained and realized the benefits of these standards as they are already required by FERC regulation.

6. Estimate of Incremental Specific Costs to Implement Proposed Standard or Enhancement:

   No additional costs for implementation are expected – this request to adopt standards is reflective of a final order that requires companies to implement such. As the order is final, the parties have already implemented these standards.

7. Description of Any Specific Legal or Other Considerations:

   This is an existing standard already adopted by the FERC.

8. If This Proposed Standard or Enhancement Is Not Tested Yet, List Trading Partners Willing to Test Standard or Enhancement (Corporations and contacts):

   N/A

9. If This Proposed Standard or Enhancement Is In Use, Who are the Trading Partners :

   The standard applies to transmission users' interactions with public utilities.

10. Attachments (such as : further detailed proposals, transaction data descriptions, information flows, implementation guides, business process descriptions, examples of ASC ANSI X12 mapped transactions):

    The Standards are composed from the following attached documents:

- Federal Energy Regulatory Commission Business Practice Standards for Open Access Same-Time Information System (OASIS) Transactions, Version 1.2, issued October 25, 2000 (Attachment A).
- Standards and Communication Protocols for Open Access Same-Time Information System (OASIS), Version 1.4, July 26, 2000 (Attachment B).
- Data Dictionary, Standards and Communication Protocols for Open Access Same-Time Information System (OASIS), Version 1.4, July 26, 2000 (Attachment C)
- Revisions to Section 4.2.10.2 of the S&CP Document, 4.2.10.2, Status Values (Attachment D).
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- FERC Order 605 (Attachment F).
- FERC Order 889 (Attachment G).
- FERC Order 889 Appendix A Data Element Dictionary (Attachment H).
- FERC Order 889 Appendix B Request (Query) Variables (Attachment I).

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Instructions:

1. Please fill out as much of the requested information as possible. It is mandatory to provide a contact name, phone number and fax number to which questions can be directed. If you have an electronic mailing address, please make that available as well.

2. Attach any information you believe is related to the request. The more complete your request is, the less time is required to review it.

3. Once completed, send your request to:
   Rae McQuade
   NAESB, Executive Director
   1301 Fannin, Suite 2350
   Houston, TX 77002

   Phone: 713-356-0060
   Fax: 713-356-0067

   by either mail, fax, or to NAESB's email address, naesb@aol.com.

Once received, the request will be routed to the appropriate subcommittees for review.

Please note that submitters should provide the requests to the NAESB office in sufficient time so that the NAESB Triage Subcommittee may fully consider the request prior to taking action on it. It is preferable that the request be submitted a minimum of 3 business days prior to the Triage Subcommittee meetings. Those meeting schedules are posted on the NAESB web site at http://www.naesb.org/monthly_calendar.asp.

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Date of Request: December 29, 2003

1. Submitting Entity & Address:
   Southern Company Services
   600 North 18th Street
   Birmingham, AL 35291

2. Contact Person, Phone #, Fax #, Electronic Mailing Address:
   Name : Mr. Monroe Landrum
   Title : Manager, Operating Systems
   Phone : (205) 257-6936
   Fax : (205) 257-6663
   E-mail: mjlandru@southernco.com

3. Description of Proposed Standard or Enhancement:
   We propose the WEQ's acceptance of the IT subcommittee's recommended actions on the OASIS 1A issues that were left over from the OASIS Scheduling Collaborative.

4. Use of Proposed Standard or Enhancement (include how the standard will be used, documentation on the description of the proposed standard, any existing documentation of the proposed standard, and required communication protocols):

   The specification/business practice issues represent enhancements or development of new standards that would need to be created to support the recommendations of the IT Subcommittee ~~that would need to be created~~. Our comments reflect which items that we feel that the NAESB WEQ EC should take action on and which items that we feel do not

warrant further consideration from a cost/benefit perspective. Note that some of the items that we recommended not to move forward on, only apply to OASIS 1A but should be considered in the development of OASIS II. Those are noted in the attachment.

5. Description of Any Tangible or Intangible Benefits to the Use of the Proposed Standard or Enhancement:

   The compliance/clarification issues involve concerns about standards not being followed or various implementations of the standard due to varying interpretations of the standards. It is our position that since NAESB is not a compliance monitoring organization and since the FERC has a hotline for presenting such issues, that NAESB take no further actions other than to post our responses on the ITS website.

6. Estimate of Incremental Specific Costs to Implement Proposed Standard or Enhancement:

   N/A

7. Description of Any Specific Legal or Other Considerations:

   This is an existing standard already adopted by the FERC.

8. If This Proposed Standard or Enhancement Is Not Tested Yet, List Trading Partners Willing to Test Standard or Enhancement (Corporations and contacts):

   N/A

9. If This Proposed Standard or Enhancement Is In Use, Who are the Trading Partners :

   N/A

10. Attachments (such as : further detailed proposals, transaction data descriptions, information flows, implementation guides, business process descriptions, examples of ASC ANSI X12 mapped transactions):
    - **Letter from Monroe Landrum to Rae McQuade**

To: Rae McQuade, chair NAESB WEQ EC
From: Monroe Landrum, chair NAESB WEQ ITS

Subject: OASIS 1A Issues

On the behalf of the ITS, I am forwarding our recommended actions on the OASIS 1A issues that were left over from the OASIS Scheduling Collaborative. Looking at the attachment, you will notice that we have categorized the issues into general issues, compliance/clarification issues, and specification/business practices issues. We have provided comments on each of the issues and recommend that the document be posted on the ITS website with a notice to those subscribed to the ITS.
The general issues are primarily opinions on how we should proceed with OASIS 1A.
The compliance/clarification issues involve concerns about standards not being followed or various implementations of the standard due to varying interpretations of the standards. It is our position that since NAESB is not a compliance monitoring organization and since the FERC has a hotline for presenting such issues, that NAESB take no further actions other than to post our responses on the ITS website.
The specification/business practice issues represent enhancements or new standards that would need to be created. Our comments reflect which items that we feel that the NAESB WEQ EC should take action on and which items that we feel do not warrant further consideration from a cost/benefit perspective. Note that some of the items that we recommended not to move forward on, only apply to OASIS 1A but should be considered in the development of OASIS II. Those are noted in the attachment. Our recommended action items are listed:

- **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 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 is suggested that the IT and ESS work jointly on this issue as both a technical and business practices effort in specification in OASIS 1A.

- **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. It was suggested that the IT and ESS work jointly on this issue as both a technical and business practices effort.

• 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 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 FERC).

• 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.

- **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 for the IT and ESS to address.
It is our suggestion that the EC review these recommendations and assign them to the ITS and/or the ESS for the development of a request for standards for these issues. Our group acknowledges that this is not the normal approach for developing standards requests, however due to the uniqueness of the situation; we wanted the EC to confirm that these issues would be the types of activities that we should be pursuing. While the business practices and S&CP have not yet been adopted by NAESB, we understand that this is currently being addressed. By moving ahead with the development of the standards requests, we would have these in place by the time that the adoption of the BPs and S&CP were complete.

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 (specification/business practices issues, general issues, and compliance/clarification 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. The numbering system was maintained from the original listing to promote continuity in both sections and the original.

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 (Use of Status Indicators)
Part(a) (Compliance)
18(b). Standardized Process for NITS service on OASIS
Part(b) (Specification/Business Practice)
18(c). Standardized Process for NITS service on OASIS (Difference in TP Posting and Capacity)
Part(c) (Compliance/Clarification)
19. Posting Reference Field (Compliance/Clarification/Specification)
20. This issue originally was six items; now condensed down to one item.
20. Other Items (Naming Standardization) (Specification/Business Practices)
OASIS 1A Issues
2

OASIS 1A Issues

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. It was suggested that the IT and ESS work jointly on this issue as both a technical and business practices effort.

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 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 in specification in OASIS 1A.

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. It was suggested that the IT and ESS work jointly on this issue as both a technical and business practices effort.

12. Multiple Submissions of Identical Transmission Requests / Queuing Issues

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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 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 FERC).

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 and Order 638 does.

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.

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 and specification issue, but no consensus was reached on a method to include in this recommendation to the IT only that a specification for the notification of outages should be written.

18. Standardized Process for NITS service on OASIS Part(b)

Examples:
Standardized process for NITS service on OASIS:
a) Initial service application procedure
OASIS 1A Issues
5
b) Designation of network resources
c) Addition of network resources
d) Elimination of network resources
(Specification/Business Practice)
The enumerated standardization process was identified as a business process issue that should be referred to the ESS.

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/Clarification/Specification)
The S&CP provides guidance on the posting reference field in Section 4.3.7.1 and therefore becomes a compliance issue. There also is a clarification issue in that the S&CP references a posting reference field in Section 4.3.10.1, 4.3.10.2, and 4.3.10.3 and the Data Element Dictionary has a definition for two types of posting reference. The posting reference field needs to be redefine to split the type up into two definitions.

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 for the IT and ESS to address.

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
OASIS 1A Issues
6
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)
Anytime an incremental change in OASIS standards is adopted, the change should 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, for issues identified as OASIS issues, NAESB should be the governing body in determining an appropriate categorization and resolution.
OASIS 1A Issues
7

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 (3.4, 4.5) as to which documents should be included.

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)
There is a compliance issue with some Transmission Providers (TPs) not posting this information in the required format as defined by S&CP (4.3.4.1).

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 with S&CP (4.3.4.2) in the way that some TPs post the required events. There is also a compliance issue with some TPs not posting this information in the required format. There also is a clarification or interpretation issue in regards to which events should be posted.
OASIS 1A Issues
8

7. Posting of Advertisements

Should the posting of related and/or unrelated advertisements be allowed on OASIS nodes? (Clarification)
S&CP (4.3.10.1, 4.3.10.2) 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 (4.3.4.4) 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 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 (4.3.2.2, 4.3.3.2, 4.3.8, and 4.3.9) already specifies how to handle this type of service. Further enhancements may be required in the development of OASIS Phase II.

18. Standardized Process for NITS service on OASIS (Use of Status Indicators)

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)
OASIS 1A Issues
9
This issue is a compliance issue with S&CP (4.2.10.2) dealing with the misuse of the status indicators.

18. Standardized Process for NITS service on OASIS (Difference in TP Posting and Capacity)

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 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)
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

OASIS 1A Issues
10
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/Clarification/Specification)
The S&CP provides guidance on the posting reference field in Section 4.3.7.1 and therefore becomes a compliance issue. There also is a clarification issue in that the S&CP references a posting reference field in Section 4.3.10.1, 4.3.10.2, and 4.3.10.3 and the Data Element Dictionary has a definition for two types of posting reference. There is also a need for a specification change to identified both and split the definition into parts.

R04007

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Instructions:

1. Please fill out as much of the requested information as possible. It is mandatory to provide a contact name, phone number and fax number to which questions can be directed. If you have an electronic mailing address, please make that available as well.

2. Attach any information you believe is related to the request. The more complete your request is, the less time is required to review it.

3. Once completed, send your request to:

   Rae McQuade
   NAESB, Executive Director
   1301 Fannin, Suite 2350
   Houston, TX 77002

   Phone: 713-356-0060
   Fax: 713-356-0067

   by either mail, fax, or to NAESB's email address, naesb@aol.com.

Once received, the request will be routed to the appropriate subcommittees for review.

Please note that submitters should provide the requests to the NAESB office in sufficient time so that the NAESB Triage Subcommittee may fully consider the request prior to taking action on it. It is preferable that the request be submitted a minimum of 3 business days prior to the Triage Subcommittee meetings. Those meeting schedules are posted on the NAESB web site at http://www.naesb.org/monthly_calendar.asp.

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Date of Request: December 29, 2003

1. Submitting Entity & Address:

Southern Company Services
600 North 18th Street
Birmingham, AL 35291

2. Contact Person, Phone #, Fax #, Electronic Mailing Address:

Name : Mr. Joel Dison
Title : Manager of Market Policy
Phone: (205) 257-6481
Fax : (205) 257-6824
E-mail : jjdison@southernco.com

3. Description of Proposed Standard or Enhancement:

Review existing OASIS standards and Commission proceedings and develop a body of standards that would be considered OASIS Phase 2. Using the Use Cases and other deliverables of the Electronic Scheduling Collaborative as a model template, identify core functionality, design, and behavior of OASIS Phase II, and develop business practices supportive of OASIS Phase II. The business practices standards developed would complement the activities underway to ~~revise~~ implement the NERC functional model.

4. Use of Proposed Standard or Enhancement (include how the standard will be used, documentation on the description of the proposed standard, any existing documentation of the proposed standard and required communication protocols):

The business practice standards are designed to implement the Commission's policy related to on-line price negotiation and to improve the commercial operation of the Open Access Same-Time Information System (OASIS). The business practice standards may address the day ahead market, congestion revenue rights and real-time market. OASIS II may also need to include some capability to provide dynamic feedback to the market participants , i.e., publish LMP MW and pricing.

At a very high level, OASIS II may need to accommodate the following:

Miscellaneous:
- ICAP contract information,
- Market Participant registration,
- Asset registration,
- Long-term/seasonal market information.

Transmission related services:
- Information to conduct CRR auctions,
- Information to facilitate a secondary CRR market,
- Total Transfer Capabilities,
- Congestion information (ATC may become irrelevant under LMP).

Day Ahead Market:
- Generator bid information,
- External transaction bid information,
- Internal bilateral contract information,
- Demand/Load bid information,
- Ancillary services bid information,
- Virtual bidding (inc and dec bids),
- CRR information where applicable,
- Final market clearing MW amounts, pricing, congestion areas, etc.

Real-time Market:
- Generator bid or re-bid information,
- External transaction bid or re-bid information,
- Demand/Load bid or re-bid information,
- Internal bilateral contract information,
- Real-time dispatch points for generators,
- Real-time dispatch points for dispatchable loads,
- Real-time metering for Settlements,
- Real-time pricing, ex-post and/or ante-post.

Settlements:
- ICAP market,
- LMP with Energy, Congestion charge and Loss components,
- Applicable transmission charges,
- Congestion revenue and payments.

Business practices development may be needed a a base for OASIS II, to support the following E-Tag issues:
1. Distinguish between IDC and CA initiated curtailments
   a. Determine costs for implementing the “two-level” reliability profile
2. Add TERMINATE and CANCEL states back into valid states
   a. Develop “whitepaper” explaining need for this feature
   b. Provide estimate of costs associated with doing this
3. Create a “Printable Tag” for use during service failures (would have reduced amount of data provided).
4. Use “WITHDRAWN” state rather than “killed tag” (WSCC-RMS)
   a. Develop “whitepaper” explaining need for this feature
   b. Provide estimate of costs associated with doing this
5. Create CHECKOUT feature.

6. Are FRONT_END tag extensions going to be developed or can we take this off of our list of possible enhancements?
7. Can GPEs have the ability to CURTAIL tags due to loss of generation?
8. With intermediate CAs being allowed to CURTAIL transactions, the significance of the first issue listed above is heightened. Without some method of distinguishing between reliability profiles, each CA will have the ability to inadvertently reload another CA's CURTAILment, which is the problem with IDC reloads today.
9. Are there any problems with the new functionality of the RC being able to modify the CURTAILMENT start time?
10. For each TP there should be a Scheduling Entity. This was approved back in the first part of 2003. The TISWG will move ahead with a specification change, unless the IS has a reason not to proceed.

5. Description of Any Tangible or Intangible Benefits to the Use of the Proposed Standard or Enhancement:

The industry and the Commission have already ascertained and realized the benefits of the standards that compose OASIS I. OASIS I is being reviewed for modifications for OASIS IA. OASIS II is the natural progression from OASIS IA and would more accurately reflect today's market conditions.

6. Estimate of Incremental Specific Costs to Implement Proposed Standard or Enhancement:

Unknown at this time.

7. Description of Any Specific Legal or Other Considerations:

The efforts to develop OASIS II business practices standards should support the NERC efforts to ~~revise~~ implement the functional model.

Note that although some of the items listed within this Request may appear to be directed to a specific market design, we recognize that OASIS Phase 2 is meant to accommodate all market designs and that there may be other ways to address accommodation of all market design characteristics.

Also note that regarding settlements, the OASIS II System Requirements document indicates a need to "interface" with settlement systems, but not, at least at this point, provide settlement services. We recognize that these services are important, but could be added at a later phase.

Further note that:

> The standard needs to be written to also accommodate forward markets as necessary. This may not be a big deal but entities should have the ability to submit information for a forward block of time.

The standard needs to be written broad enough to encompass all markets, not just LMP.

ATC calculations and posting mechanisms need to be included. The comment that ATC may be irrelevant under LMP may be valid, but I don't think that the industry in the West is ready to implement LMP as presently proposed. We need to keep the standards flexible enough to allow for regional needs, or if specificity is required, then to develop some form of regional standards. Also "existing transmission rights" need to be honored in the standard methodology.

Specific WECC language is included in the possibilities (RMS). In addition, there is a WECC process currently underway to develop a tracking mechanism for reserve obligations by identifying interruptible and non interruptible components. This is presently in the form of a proposed WECC ISAS Business Practice recommendation authored by a joint task force to deal with this regional issue. The standard may need to include some language on tracking reserve obligations. What is presently being discussed is a check box with an "I" to be toggled on and off, or a new set of transmission product codes with "I" added.

Although the standard does apply to "public utilities", nonjurisdictional entities are also affected as they are also trading partners. As standards are being developed it is important to write these so that they encompass the entire industry and reflect the needs of all.

8. If This Proposed Standard or Enhancement Is Not Tested Yet, List Trading Partners Willing to Test Standard or Enhancement (Corporations and contacts):

   Testing plans will be devised to support the development and implementation of OASIS II standards.

9. If This Proposed Standard or Enhancement Is In Use, Who are the Trading Partners:

   The standard applies to transmission users' interactions with public utilities.

10. Attachments (such as : further detailed proposals, transaction data descriptions, information flows, implementation guides, business process descriptions, examples of ASC ANSI X12 mapped transactions):

    Electronic Scheduling Collaborative OASIS II System Requirements
    OASIS II Use Case Specification
    NERC Reliability Functional Model which can be accessed from the following address: (http://www.nerc.com/~filez/functionalmodel.html)

ISO/RTO Council 2004 Annual Work Plan for Standards Development and Standardization Activities

The ISO/RTO Council ("IRC") will participate in industry standards development efforts with NERC and NAESB. The primary mechanism for coordinating and presenting consensus positions to the industry will be through the IRC's Standards Review Committee ("SRC").

Reliability Standards Development

ISO/RTOs will participate in the development and prepare consensus comments and positions, as appropriate, for following Reliability standards that NERC plans to have developed during 2004:

1. Cyber Security
2. Assess Transmission Future Needs and Develop Transmission Plans
3. Balance Resources and Demand
4. Organizational Certification
5. Coordinate Interchange
6. Coordinate Operations
7. Interconnection Requirements
8. Design, Install and Coordinate Control and Protection Systems
9. Determine Facility Ratings, Operating Limits, and Transfer Capabilities
10. Monitor and Analyze Disturbances, Events and Conditions
11. Operate Within Transmission Limits
12. Prepare for and Respond to Abnormal or Emergency Conditions
13. Prepare for and Respond to Blackout or Island Conditions

The ISO/RTOs will participate in development efforts and provide consensus comments and positions, as appropriate, on the following reliability standards related activities with NERC:

Functional Model

The Model provides the foundation and framework upon which NERC will develop and maintain its Reliability Standards. While the Model is not a standard, and does not have compliance requirements, the Reliability Standards must respect the definitions and interrelationships contained in the Model. NERC is updated Version 1 of the Model and the standing committees approved Version 2 at their November 2003 meetings.

Existing Operating Policies and Planning Standards

Maintain and consider revisions, as appropriate, to existing Operating Policies and Planning Standards until replaced by NERC Reliability Standards, under NERC's "Transitional Process for Revising Existing NERC Operating Policies and Planning Standards."

NERC anticipates the following changes:

1. Policy 3, “Interchange,” and Appendix 3A4, “Required and Correctable Tag Data,” (removing Market Dispatch)
2. Appendix 1D, “Time Error Correction,” (revise time error initiation)
3. Appendix 9C1B, “Interchange Transaction Reallocation During TLR Levels 3a and 5a.”

Standards Transition

The ISO/RTOs will actively engage in committee (i.e. SAC) activities to assist in the transition from existing NERC operating policies and planning standards to reliability standards, with a goal of completing the transition by December 2006. This includes participation in determining what parts of existing operating policies and planning standards should become business practice standards and what business practice standards are needed to implement the emerging reliability standards.

Business Standards Development Activities With NAESB

The ISO/RTOs will assist NAESB in the development of business standards by providing the perspectives and expertise of subject matter experts, as appropriate. The IRC will work with the NAESB WEQ’s Subcommittees, Task Forces, and working groups as they assess issues for potential market impacts and needs for market standards. Through the SRC, the ISOs/RTOs will advise NAESB on issues identified, submit comments in the standards process, and provide joint responses to NAESB.

The IRC will work with NAESB on the following issues in 2004:

- Market Seams
- Complimentary business practices to NERC Reliability Standards
- OASIS Standards
- Electronic Scheduling Issues
- Other significant Wholesale Electric Market Operations and Standardization issues, as they may arise.

Coordination with NAESB and NERC

One of the goals of the MOU is to establish and implement a process to coordinate work efforts among NERC, the NAESB WEQ and the IRC in a manner that avoids overlap and duplication of effort. The IRC, through its JIC representatives and the SRC, will work jointly with NAESB and NERC to establish a mutually agreeable approach to coordinate standards development and related work efforts of each organization.

Inter-ISO/RTO Information Technology

The ISO/RTOs will look to identify appropriate technologies and opportunities for standardizing inter-ISO/RTO Information Technology (“IT”) processes. Through the IRC’s Information Technology Committee (“ITC”), the ISO/RTOs will seek to adopt standard technologies and standardize processes and data exchanges unique to ISO/RTOs.

The IRC IT Committee is actively engaged in three initiatives:

1. Data initiative – defines the content of messages exchanged between ISO/RTOs
2. Message Transmission – the mechanics of data exchange
3. Common User Portal – defines interface to create and retrieve messages

The Data initiative will be based on the Common Information Model ("CIM") standard from EPRI. This will be extended to include market data. The planning phase of this initiative is complete. The next steps are to solicit bids from various vendors and apply this technology to inter-ISO/RTO applications that this initiative would add value to.

The Message Transmission initiative will enable ISO/RTOs to access data across ISO/RTOs through a common portal. This will provide benefits in reliability coordination, outage management, and seams management. Once the scope and schedule are finalized, an implementation schedule will be developed

The Common User Portal will simplify information exchange processes with the ISO/RTOs. It will reduce development costs for each ISO/RTO and transaction costs for market participants. A development plan and requirements schedule is being prepared.

Technologies that may be identified as potential standards that may be applied on a North American basis will be proposed and coordinated through the IRC's Standards Review Committee.

North American Energy Standards Board

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NORTH AMERICAN ENERGY STANDARDS BOARD
2004 WEQ Annual Plan
Approved by the Board of Directors December 4, 2003
Modified by the WEQ Executive Committee – December 9, 2004

	Item Description	Completion[1]	Assignment
1	**Develop business practices standards as needed to complement reliability standards**		
	(a) Develop business practice standards to support and complement NERC reliability standards, NERC policies and NERC standards authorization requests (SARs). Current NAESB activities underway to develop business practice standards that are supportive of this annual plan item are:		Standards Review Subcommittee (SRS)[2]
	i. Develop Inadvertent Interchange Payback Business Practices		BPS (IIPTF)
	ii. R03013 – Coordinate Interchange		SRS/ESS
	iii. R03014 – Coordinate Operations		SRS
	iv. R03017 -- Operate Within Limits		SRS
	v. Balance Resources and Demand		SRS
	vi. Facility Ratings		SRS
	(b) Develop business practice standards applicable to the transition period from NERC policies to NERC reliability standards.		SRS/Various[3]
2	**Develop and Maintain Business Practice and Communication Standards for OASIS and Electronic Scheduling**		
	(a) Develop and/or maintain *business practice standards* as needed for OASIS and electronic scheduling including determining which, if any, ESC/OSC and other related industry groups' business practices and standards should be adopted as NAESB standards. Specific items to address include:		Electronic Scheduling Subcommittee (ESS)
	i. OASIS Phase IA (a) Adoption of business practices per FERC Order 638		ESS
	ii. OASIS Phase II per FERC ANOPR (Docket no. RM00-10-000) and subsequent orders 1. Adoption/maintenance of ESC use cases		ESS

[1] Dates in the completion column are by end of the quarter for completion by the assigned committee. The dates do not necessarily mean that the standards are fully staffed so as to be implementable by the industry, and/or ratified by membership. If one item is completed earlier than planned, another item can begin earlier and possibly complete earlier than planned. There are no begin dates on the plan.

[2] The Standards Review Subcommittee scopes, identifies and defines the standards development work to be done to suppoer and complement NERC policies, SARs and NERC reliability standards. Once completed, the request, initial review document, scoping document and other work papers are transferred to the appropriate standards development subcommittee.

[3] The North American Electric Reliability Council Transition Team is responsible for establishing a plan to convert existing NERC policies to NERC reliability standards. Co-commitant with that conversion, NAESB will develop corresponding NAESB business practices. Michael Desselle, Rae McQuade and Charles Yeung are representatives of NAESB on the NERC Transition Team.

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NORTH AMERICAN ENERGY STANDARDS BOARD
2004 WEQ Annual Plan
Approved by the Board of Directors December 4, 2003
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	Item Description	Completion[1]	Assignment
	2. Adoption/maintenance of Functional Requirements Document		ITS
	3. Develop and Maintain business practices to support and implement the ESC use cases		ESS
	(b) Develop and/or maintain *standard communication protocols* and cybersecurity requirements as needed, including related industry standard communication protocols and cybersecurity requirements		Information Technology Subcommittee (ITS)
	(i) OASIS Phase IA Adoption of S&CP version 1.4		
	(ii) OASIS Phase II per FERC ANOPR (Docket no. RM00-10-000) and subsequent orders Development of S&CP document		
	(iii) NERC PKI initiative		
3	**Develop business practices standards to Improve the Current Operation of the Wholesale Electric Market**		
	(a) Develop business practice standards needed to complement or assist specific seams mitigation efforts initiated by or coordinated with the NERC, the IRC, RTOs or ISOs, or other regional entities.		Seams/Various[4]
4	**Determine the need for and develop, if necessary, standard(s) requests for electric or gas standards required to provide additional flexibility in generation scheduling (including gas nominations).**		Gas Electric Coordination Task Force[5]

PROVISIONAL ITEMS

1 Develop standards and model business practices in accordance with FERC orders and rules issued in the SMD docket (RM01-12-000), or pursuant to Order Nos. 888 or 2000, or otherwise directed by the FERC.

2 Respond to FERC inquiries pertaining to business practice standard development and keep FERC informed on the nature and effectiveness of coordination activities with other standards setting organizations.

3 Develop business practice standards related to FERC's forthcoming generation interconnection orders (large and small generators), in Docket Nos. RM02-01-000 and RM02-12-000.

4 FERC Reporting of Electricity Prices

[4] The Seams Subcommittee scopes, identifies and defines the standards development work to be done related to the seams catalog. After seams catalog items are assigned to NAESB by the Joint Interface Committee, and the Seams Sucommittee completes its review and analysis, the request, initial review document, scoping document and other work papers are transferred to the appropriate standards development subcommittee.

[5] The Gas Electric Coordination Subcommittee is an ad hoc subcommittee comprised of participation by all four quadrants of NAESB to address the issues outlined in request number R03031, submitted by TVA and amended on November 20, 2003.

North American Energy Standards Board

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NORTH AMERICAN ENERGY STANDARDS BOARD
2004 WEQ Annual Plan
Approved by the Board of Directors December 4, 2003
Modified by the WEQ Executive Committee – December 9, 2004

	Item Description	Completion[1]	Assignment
5	Develop business practice standards as requested by the regional and state advisory groups.		
6	Develop electric purchase and sales contract.		

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Appendix
Comments Accompanying the Action Items and Provisional Items
For the 2004 Annual Plan Adopted by the Executive Committee – October 7, 2003

ACTION ITEMS:

1a The original 1(a) from the 2003 plan is implied and 1(b) and 1(c) have been rewritten as a part of this plan: 1(a) Apply NERC/NAESB MOU provisions in reviewing proposed reliability standards for their business practice implications, 1(b) Review existing NERC reliability policies and standards for their business practice implications, 1(c) Review each of the SARs in light of the NERC/NAESB MOU.

1b This is a new item that reflects the recent NERC decision to create Transition team. NAESB has been asked to join the Transition Team which is led by Gerry Cauley. NAESB members on the team are Charles Yeung, Rae McQuade and Michael Desselle.

2a The Information Technology Subcommittee has been formed and is currently reviewing existing lists of enhancements for OASIS 1A and OASIS 2. A NAESB Electronic Scheduling Subcommittee was created but is inactive awaiting input from the existing ESC industry group

2b The PKI request R03007 has been assigned to the NAESB WEQ to be addressed which is a portion of this annual plan item.

This item also corresponds to the 2003 WEQ Annual Plan item 4(h) Review activities of NERC CIPAG in light of NERC-NAESB MOU regarding cyber security requirements for their business practice and system communication standards implications.

3a A seams catalog is under development now and will identify many of the items to be included under this action item. This item was originally numbered item 4 in the 2003 WEQ Annual Plan. Several items were deleted, and will be added back to the plan if they are requested through the comments or meetings on the plan and the requesters indicate a willingness to participate in the standards development effort or in the drafting effort. The items removed from the 2003 plan are: 4(a) Establish a standardized electric trading day; 4(b). Identify and develop business practices on the public dissemination of market information.

Other items from the 2003 WEQ Annual Plan were reordered and renamed such as: 4(d) Develop business standards as necessary to resolve seams issues between ISOs and RTOs; 4(c) Establish standard business practices relating to: i) Definition and treatment of firm/nonfirm power; ii) Definition and treatment of firm/nonfirm transmission; iii) Provision of reserves for transactions across multiple control areas, 4(e) Develop standards for data requirements, data exchange and scheduling of day-ahead and real-time bilateral markets; and 4(h) Review activities of NERC CIPAG in light of NERC-NAESB MOU regarding cyber security requirements for their business practice and system communication standards implications.

Some items on the 2003 WEQ Annual Plan were considered assumed in each of the action items, so they were not specifically highlighted as a separate action item, such as : 4(f) Examine business practices and definitions currently in use to determine applicability on a North American basis and 4(g) Catalogue, assess and prioritize existing “standards” that have significant business practice implications.

4 This is a new item, not in the 2003 plan. It was added at the August 5 Executive Committee meeting.

North American Energy Standards Board

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Appendix
Comments Accompanying the Action Items and Provisional Items
For the 2004 Annual Plan Adopted by the Executive Committee – October 7, 2003

PROVISIONAL ITEMS:

1 These items (originally items 3 and 7 of the 2003 Annual Plan) were reclassified as provisional and will be acted upon as such FERC actions are taken.

4 This is a new item, not in the 2003 plan. It was added at the August 5 Executive Committee meeting.

5 This is a new item, not in the 2003 plan. It was added at the August 5 Executive Committee meeting.

6 There is industry interest, but there is neither consensus to move forward at this time nor may resources be available.

On August 5, several of the WEQ EC members discussed possibly preparing a request that would add an item to the 2004 annual plan to develop a master service agreement. The request was prepared but subsequently withdrawn by the submitter due to an expected lack of resources.

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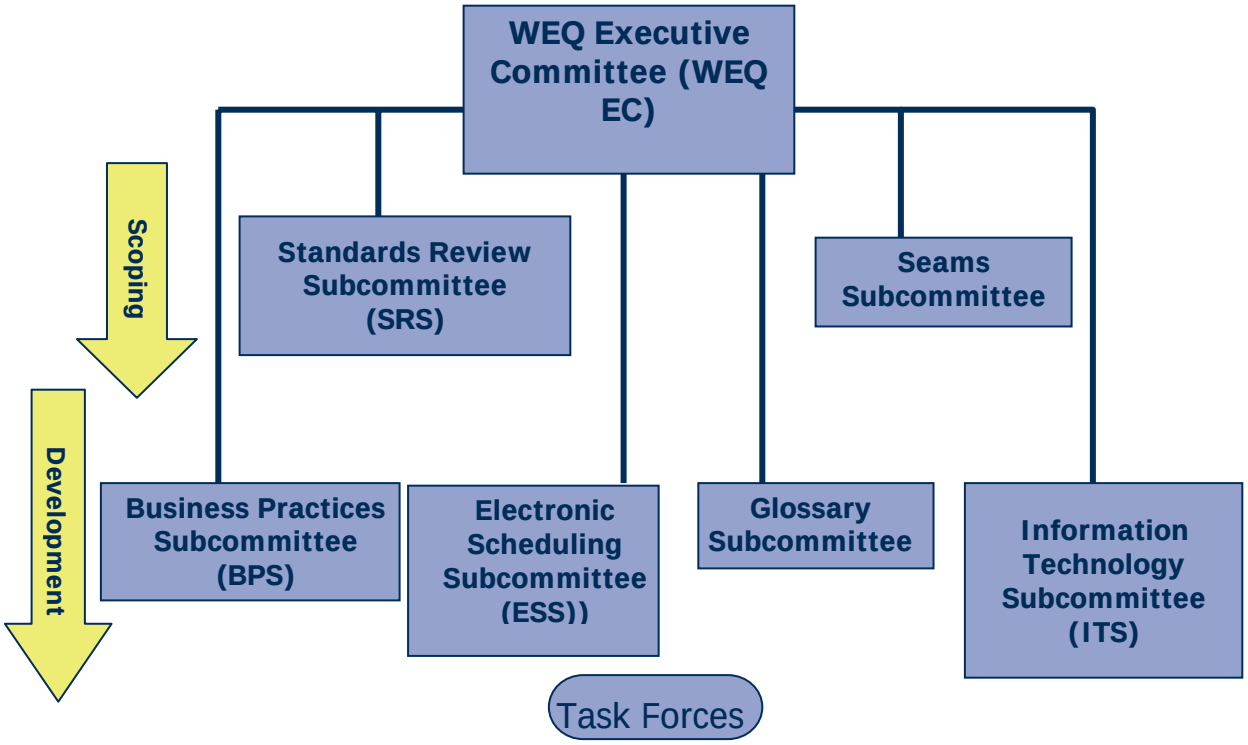
NAESB Wholesale Electric Quadrant Committee Structure



Subcommittee Leadership is:

Executive Committee: Lou Oberski (WEQ EC Chair) and Steve Cobb (WEQ EC Vice Chair)

Standards Review Subcommittee: Charles Yeung and Raj Rana
Seams Subcommittee: Steve Cobb and Joe Rossignoli
Business Practices Subcommittee: Bob Goss
Electronic Scheduling Subcommittee: Joel Dison, Andy Rodriguez and John Simonelli
Glossary Subcommittee: Tony Reed and Sherri Monteith
Information Technology Subcommittee: Monroe Landrum and Alan Johnson

NERC 2004 Annual Work Plan for Standards Development and Other Standardization Activity

Part 1 – Standards Development

The following standards will be developed during 2004:

Standard 100 - Coordinate Operations

Purpose: To ensure that the operations of each reliability authority (RA) function are coordinated such that they will not have an adverse impact on the reliability of other RAs and to preserve the reliability benefits of interconnected operations.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Standard 200 - Monitor and Assess Short-term Transmission Reliability - Operate Within Interconnection Reliability Operating Limits

Purpose: The purpose of this standard is to prevent instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.

Projected Activity in 2004 – Ballot and Implement Standard.

Standard 300 - Balance Resources and Demand

Purpose: To maintain Interconnection scheduled frequency within a predefined frequency profile under all conditions (i.e., normal and abnormal), to prevent unwarranted load shedding and to prevent frequency related cascading collapse of the interconnected grid.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Standard 400 - Coordinate Interchange

Purpose: To ensure that the implementation of transactions between sink and source balancing authorities are coordinated by the interchange authority such that the following reliability objectives are met:

- Each interchange schedule is checked for reliability before it is implemented.
- The balancing authorities implement the Interchange Schedule exactly as agreed upon in the interchange confirmation process.
- Interchange schedule information is available for reliability assessments.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Standard 500 - Assess Transmission Future Needs and Develop Transmission Plans

Purpose: To establish a standard for assessing and planning the transmission systems in North America. The transmission system must be assessed and planned to ensure that it performs its intended functions in providing reliable delivery of power for the future needs of customers.

Projected Activity in 2004 – Finalize SAR. Begin drafting Standard.

Standard 600 - Determine Facility Ratings, Operating Limits, and Transfer Capabilities

Purpose: Determine facility ratings, system operating limits and transfer capabilities necessary to plan and operate the bulk electric system within predefined facility and operating limits such that cascading outages, uncontrolled system separation and voltage and transient instability are avoided.

Projected Activity in 2004 – Ballot and Implement standard.

Standard 700 - Define (Physical) Connection Requirements

Purpose: To establish a standard for the proper physical connection of generation substations, transmission facilities, and load substations to the transmission systems to maintain reliability.

Projected Activity in 2004 – Finalize SAR. Begin drafting Standard.

Standard 800 - Design, Install and Coordinate Control and Protection Systems

Purpose: To establish a standard for designing, coordinating and installing and maintaining automatic control and protection systems to provide for system performance within pre-defined limits. (For the purpose of this standard, automatic control devices include such facilities as Power System Stabilizers, Static VAR Compensators, HVDC Modulation, Out of Step Relaying, etc.)

Projected Activity in 2004 – Finalize SAR. Begin drafting Standard.

Standard 900 - Monitor and Analyze Disturbances, Events and Conditions

Purpose: To establish a standard for evaluation and reporting of disturbances, events and conditions on the bulk electric system to determine how the power system responded to the events. The analysis is needed to make adjustments and/or modifications to the power system, procedures or standards to reduce the likelihood of an impact of future similar disturbances.

Projected Activity in 2004 – Finalize SAR. Begin drafting Standard.

Standard 1000 - **Prepare for and Respond to Abnormal or Emergency Conditions**

Purpose: To establish a consistent, uniformly applied standard for the development, coordination, implementation and maintenance of emergency plans. To require that an executable plan be in place to provide guidance for appropriate operation following conditions that have disrupted normal system operation.

Projected Activity in 2004 – Finalize SAR. Begin drafting standard.

Standard 1100 - Prepare for and Respond to Blackout or Island Conditions

Purpose: To establish a consistent, uniformly applied standard for the development, coordination, implementation and maintenance of restoration plans. To require that an executable plan be in place to provide guidance for restoration of normal system operation following a blackout or island condition.

Projected Activity in 2004 – Finalize SAR. Begin drafting standard.

Standard 1300 - Cyber Security - Permanent Version

Purpose: To reduce risks to the reliability of the bulk electric systems from any compromise of critical cyber assets (computers, software and communication networks) supporting those systems.

Projected Activity in 2004 – Finalize SAR. Begin drafting Standard. As of this writing, it appears it will be necessary to extend the urgent action standard for one year to prevent a lapse in coverage while waiting for completion of the permanent standard.

Standard 1400 - Certification of the Balancing Authority Function

Purpose: To ensure that each entity that wants to be recognized as a balancing authority has the capability of performing the responsibilities assigned to the balancing authority function.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Standard 1500 - Certification of the Interchange Authority Function

Purpose: To ensure that each entity that wants to be recognized as an interchange authority has the capability of performing the responsibilities assigned to the interchange authority function.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Standard 1600 - Certification of the Reliability Authority Function

Purpose: To ensure that each entity that wants to be recognized as a reliability authority has the capability of performing the responsibilities assigned to the reliability authority function.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Standard 1700 - Certification of the Transmission Operator Function

Purpose: To ensure that each entity that wants to be recognized as a transmission operator has the capability of performing the responsibilities assigned to the transmission operator function.

Projected Activity in 2004 – Complete Standard Drafting. Ballot.

Part 2 – Functional Model

Purpose: To define the set of functions that must be performed to ensure the reliability of the bulk electric system. The Model provides the foundation and framework upon which NERC develops and maintains its Reliability Standards. NERC's Reliability Standards establish the requirements of the organizations that perform the functions defined in this Model.

While the Model is not a standard, and does not have compliance requirements, the Reliability Standards must respect the definitions and interrelationships contained in the Model. Doing otherwise could result in Reliability Standards that conflict with one another.

NERC is updating Version 1 of the Functional Model that was approved by the Board in June 2001. The standing committees approved Version 2 at their November 2003 meetings.

Projected Activity in 2004 – Request Board approval of Version 2 of the Functional Model, and post a revised Version 3 later in the year.

Part 3 – Maintenance of Existing Operating Policies and Planning Standards

Purpose: To maintain the existing Operating Policies and Planning Standards until they can be replaced by NERC Reliability Standards. NERC uses its "Transitional Process for Revising Existing NERC Operating Policies and Planning Standards" to maintain these

Policies and Standards, under the management of the standing committee executive committees.

Because the current Operating Policies and Planning Standards are expected to be replaced in 2006 with the new Reliability Standards (see "Standards Transition" below), the executive committees are limiting revisions to those situations where the existing Operating Policies or Planning Standards, if left unchanged, pose a substantial risk of adverse effects on either reliability or commercial markets. Recent experience has also shown that NERC may need to revise its current Policies and Standards to reflect changes in regulatory rules and tariffs.

At this time, we expect the following changes:

1. Policies 5, "Emergency Operations," 6, "Operations Planning," 9, "Reliability Coordinator Procedures," and related appendixes – May need to revise based on August 14, 2003 blackout investigation.
2. Policy 3, "Interchange" – Recent surveys reveal many transactions are not being properly tagged and included in the Interchange Distribution Calculator. The Interchange Subcommittee is working on revising the tagging requirements in this Policy to capture all transactions.

Projected Activity in 2004 – Continue to consider revisions to the current Operating Policies and Planning Standards as necessary and in accordance with the "Transitional Process for Revising Existing NERC Operating Policies and Planning Standards."

Part 4 – Standards Transition

Purpose: To transition by December 2006 from existing NERC operating policies and planning standards to new reliability standards in a manner that provides a clear and continuous set of reliability requirements to the wholesale electric industry and makes efficient use of industry resources.

Projected Activity in 2004:

- Approve a standards transition plan, including approach and timetable for moving from existing policies and standards to reliability standards.
- Review existing operating policies and planning standards to determine elements that should become business practice standards to support the new reliability standards, and inform NAESB. Assist NAESB in prioritizing and addressing these business practices.
- Identify reliability practices, procedures, and references that must be in place to adopt each reliability standard for implementation.
- Register entities providing reliability service functions, to whom certification criteria and reliability standards will apply.
- Educate stakeholders regarding the standards transition.

Part 5 – IT-Related Matters

a. Electronic Tagging

No major changes to the current ETAG application are anticipated.

b. Interchange Distribution Calculator

The IDC will be updated to accommodate the PJM and MISO markets.

Part 6 – Market Committee Activities

1. Reliability Standards Development

Purpose: Assist in the development of reliability standards by providing market perspectives and expertise.

Projected Activity in 2004 – Working jointly with NAESB WEQ SRS, assess posted SARs and draft reliability standards for potential adverse market impacts and barriers to market solutions. Advise NERC Board of issues identified, along with recommended resolutions. Submit comments in standards process. Prepare joint results with SRS. At each MC meeting, provide a forum for the purpose of informed debate of emerging standards.

2. Coordination with NAESB and IRC

Purpose: Establish and implement a process to coordinate work efforts among NERC, the NAESB WEQ and the IRC in a manner that avoids overlap and duplication of effort.

Projected Activity in 2004 – Work jointly with NAESB and IRC to establish a mutually agreeable approach to coordinate standards development and related work efforts of each organization. Work with NAESB WEQ to review and resolve the potential reliability impacts of proposed business practice standards. Assist the IRC in identifying and addressing RTO seams issues. Assist the NAESB WEQ Seam Issues TF in identifying and recommending solutions to seams issues. Be the focal communication point for all other NERC committee groups in their interaction with NAESB and the IRC during the pre-development stages of reliability standards and business practices.

3. Standards Transition

Purpose: Assist in the transition from existing NERC operating policies and planning standards to reliability standards, with a goal of completing the transition by December 2006.

Projected Activity in 2004 – Assist, as needed, the SAC and other committees in the development and implementation of a transition plan from existing operating policies and planning standards to reliability standards. Assist, as needed, in determining what parts of existing operating policies and planning standards should become business practice

standards and what business practice standards are needed to implement the emerging reliability standards.

Part 7 – Security Matters

a. Public Key Infrastructure (PKI) initiative

NERC will continue its ongoing efforts to implement PKI in 2004. Anticipated tasks:

- Review and respond to public comments
- Develop final e-MARC document and implementation plan
- Develop final PKI vendor requirements
- Perform testing
- Issue certifications
- Work with vendors to roll-out PKI-enabled electronic tagging applications

b. Security Guidelines

As the Information Sharing and Analysis Center for the electricity industry, NERC will review and update current security guidelines and develop new guidelines as necessary

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
36	Congestion Management	Congestion Management Market Coordination	Coordinate Hedging Instruments at Market Interfaces	Coordination of market based congestion hedging instruments, such as FTRs, between adjacent RTOs with markets, especially for out and thru' transactions		National	NAESB	NAESB	IRC/FERC		Transactions between and through RTOs and needs to be consistent. Needs to be developed in a single forum.	ok
132	Congestion Management	Congestion Management Market Coordination	Joint Re-Dispatch Agreements	Interaction with American Transmission Company; possible joint redispatch agreement among ATC-PJM-Generators on ATC's system		Regional	PJM/MISO	PJM/MISO	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper		Needs NERC involvement
115	Congestion Management	Congestion Management Market Coordination	Standardize Congestion Management Market Data Exchange	Congestion Management Procedures including reciprocal coordination agreement, exchange of data for real-time and projected operations, SCADA, EMS, Operations Planning and Planning information and models; better granularity, avoid double counting, use of state estimator and LMP to enable RTOs to accurately and consistently quantify flows/impacts outside of NERC IDC to enable RTO to RTO and market to market congestion management to achieve greater efficiencies without calling TLRs; MISO and PJM and expansions to use same methods.	Definition of AFC coordination process between RTOs.	Regional	PJM/MISO	NERC	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Needs NERC involvement
35	Congestion Management	Congestion Management Market Coordination	Standardize Prices at Market Interfaces	Locational Marginal Prices (LMP) at borders of RTOs with markets (Price cap included)		National	NAESB	NAESB	IRC/FERC			Issue Type - Regional because resource adeqaucy is a regioanl issue
68	Congestion Management	Congestion Management Market Coordination	Standardize Prices at Market Interfaces	Market Design - Prior to Day Ahead. Secondary Market	To the extent that at a minimum congestion redispatch occurs in an RTO (i.e. a limited energy market), can a method be developed to produce consistent prices at the boundaries? If not, can price discontinuities be tolerated or managed? (Issue I.b.1)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		Shopping issue
70	Congestion Management	Congestion Management Market Coordination	Standardize Prices at Market Interfaces	Market Design - Day Ahead. Congestion Management Market	If models with identical levels of detail for the West are not used by all three RTOs, do the various simplifications for areas outside any given RTO create problems in achieving a uniform set of redispatch prices? (Issue I.b.3)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
72	Congestion Management	Congestion Management Market Coordination	Standardize Prices at Market Interfaces	Market Design - Day Ahead. Model spatial granularity	To the extent that at a minimum congestion redispatch occurs in an RTO (i.e. a limited energy market), can a method be developed to produce consistent day ahead prices at the boundaries? (Issue I.b.5)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
80	Congestion Management	Congestion Management Market Coordination	Standardize Prices at Market Interfaces	Market Design - Day Ahead. Other Scheduling Requirements	To the extent that at a minimum congestion redispatch occurs in an RTO (i.e. a limited energy market), can a method be developed to produce consistent prices at the boundaries that send the same signal to the market? If not, can price discontinuities be tolerated or managed? (Issue I.b.13)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		Inherient reliability issues in ATC. NERC task force has begun the work.
92	Congestion Management	Congestion Management Market Coordination	Standardize Prices at Market Interfaces	Market Design - Real Time. Model objective function	How much would a common dispatch interval mitigate against price discontinuities at boundaries? (Issue I.d.2)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
62	Congestion Management	Congestion Management Market Coordination		Market Design - Prior to Day Ahead. Financial or Physical	Must the offerings be identical? How can congestion management discontinuities be mitigated? (Issue I.a.3)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
63	Congestion Management	Congestion Management Market Coordination		Market Design - Prior to Day Ahead. Option or Obligation	Do different CM models create barriers to trade, and if so, how can these differences be mitigated? (Issue I.a.4)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
64	Congestion Management	Congestion Management Market Coordination		Market Design - Prior to Day Ahead. Revenue Stream/ or Offset CM Cost	Must the term of congestion offerings be identical? How can congestion management discontinuities be mitigated? (Issue I.a.5)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		Unscheduled flow is difficult to determine where sources are coming from & not a market issue. Compensation level is a FERC issue. Change category to "System Reliability."

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
129	Congestion Management	Congestion Management Market Coordination		Selection process for market/TLR coordinated flowgates; inclusion of flowgates in PJM FTR/ARR auctions; flowgates with and without effective control by markets; updates to flowgate list, phase-in; dispute resolution; let RTO calculate flows outside of IDC and TLR; audit rights; confidentiality of data; consideration of flowgates outside PJM and MISO	Standardized rules for determining flowgates impacted by an RTO.	Regional	PJM/MISO	NERC	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
138	Congestion Management	Congestion Management Market Coordination		Coordination of congestion	Several regional efforts are underway. Coordinate practices and methods between areas with different market approaches.	National	NAESB	NAESB	IRC/FERC	Yes	Business practices complimentary to NERC Policy 9 and 5, or subsequent standards. High priority.	Unscheduled flow is difficult to determine where sources are coming from & not a market issue. Compensation level is a FERC issue. Change category to "System Reliability."
125	Congestion Management	Determining Control Area Boundaries		Retention of former CAs in the model	When expanding Control Area boundaries (i.e., merging Control Areas) is it necessary to retain "Historic" boundaries for use in NNL estimation or other reasons?	Regional	PJM/MISO	PJM/MISO	IRC	In PJM/MISO Congestion Management Proposal Whitepaper		ok
73	Congestion Management	Operate Markets Within Transmission Limits		Market Design - Day Ahead. Model objective function	Who coordinates the scheduling constraints (i.e., security constrained dispatch) on paths that cross RTO boundaries to ensure that inter-RTO schedules do not exceed reliability standards? (Issue I.b.6)	Regional	Western Interconect SSG-WI	NERC	IRC/NERC	SSG-WI, CMA Work Group		Inherent reliability issues in ATC. NERC task force has begun the work.
130	Congestion Management	Operate Markets Within Transmission Limits		What happens when MISO and PJM and outside PJM/MISO firm and CBM exceed TTC - day ahead mechanism to reduce oversubscribed conditions		Regional	PJM/MISO	PJM/MISO	IRC	In PJM/MISO Congestion Management Proposal Whitepaper	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
43	Congestion Management	Standardize and Coordinate ATC Calculations	Contract Tie Capacity Sharing	Allow Sharing Contract Tie Capacity between Entities across Seams	Lack of Coordination and Sharing of Tie Capacity is an artificial market barrier	National	NERC	all	IRC/NAESB	Limited	High priority. All associated commercial impacts should be referred to NAESB.	ok
59	Congestion Management	Standardize and Coordinate ATC Calculations	Coordinate Hedging Instruments at Market Interfaces	Inter-control area congestion management / parallel flow management	Develop congestion hedges across control area boundaries.	Regional	NYISO/ISO-NE	NYISO/ISO-NE	IRC/FERC	Northeast ISO	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Reliability related.
44	Congestion Management	Standardize and Coordinate ATC Calculations	Standardize TRM and CBM Calculations	Calculation and Values of TRM and CBM consistent	Underutilization of Transmission Capacity	National	NERC	NERC	IRC/NERC	Limited	High priority. All associated commercial impacts should be referred to NAESB.	ok
17	Congestion Management	Standardize and Coordinate ATC Calculations and Postings	Reconcile ATC Calculations Between Physical and Financial Transmission Markets	TTC-ATC calculation/posting	Interface between a financial market (no physical transmission arrangements) and physical transmission regions (selling transmission capacity through OASIS reservations): Problems of TTC-ATC calculations coordination. Counterparties include IMO, NYISO, and ISO-NE.	Regional	HQ TransÉnergie, NYISO/ISO-NE	NERC	IRC/NERC	No	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
61	Congestion Management	Standardize and Coordinate ATC Calculations and Postings	Reconcile ATC Calculations Between Physical and Financial Transmission Markets	Market Design - Prior to Day Ahead. Congestion Revenue Rights (CRRs) [Firm Transmission Rights (FTRs) in MD02, FTOs in RTO West]	Are all transmission rights both physical and financial required to be identical to mitigate the seams problems? (Issue #I.a.2)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
9	Congestion Management	Standardize and Coordinate ATC Calculations and Postings		Transmission Calculations	Transmission calculations are not consistent. Solution: Standardized ATC Calculations.	National	NAESB	NERC	IRC/NERC	Yes - SSG - WI	High priority. All associated commercial impacts should be referred to NAESB.	ok
55	Congestion Management	Standardize and Coordinate ATC Calculations and Postings		Improved TTC/ATC posting	Monthly and yearly posting of TTC/ATC values to support transaction pre-scheduling. Clarify how the ATC values calculated by each ISO should be used to ascertain the ability of the interface to support transactions.	Regional	NYISO/ISO-NE	NERC	NERC, IRC H51FERC, and Regulators	Northeast ISO	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
109	Congestion Management	Standardize and Coordinate ATC Calculations and Postings		ATC Differences - Individual control areas determine ATC for jointly operated transmission interfaces. Differences in ATC calculations can confuse the marketplace, which may react by avoiding transactions that would otherwise be economic due to the uncertainty and perceived risk.		Regional	PJM/ NYISO/ ISO-NE	NERC	IRC/NERC	In Northeast Power Markets Seams Action Plan	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Category: System Reliability; Allocation of flows are inherent around scheuldes. Could be split to deal with allocation and compensation.

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
116	Congestion Management	Standardize and Coordinate ATC Calculations and Postings		ATC/AFC Coordination - MISO and PJM to coordinate with any external parties wishing to do so, respecting all significant flowgates external to their respective boundaries; availability and levels of service and curtailments for firm and non-firm, network and point to point.		Regional	PJM/MISO	NERC	IRC/NERC	In PJM/MISO Congestion Management Proposal Whitepaper	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
20	Congestion Management	Standardize TTC Calculations Across Interfaces		TTC coordination	Disagreement between two operators on the physical capability of an interconnection (line 7040 and Phase II). Counterparties are NYiso and ISO-NE.	National	NERC	NERC	IRC/NERC	Yes	All associated commercial impacts should be referred to NAESB.	ok
69	Congestion Management	System Market Modeling Coordination	Standardize Prices at Market Interfaces	Market Design - Day Ahead. Energy Spot Market	In order to achieve a uniform set of redispatch prices, if that is necessary, do the network models have to be identical, with the exact system? Each time each one is used does it have to be synchronized with the other RTOs or is a single process required? In addition do the programs that use the models have to be identical in order to get the uniform set of redispatch prices? (Issue I.b.2)	Regional	Western Interconect SSG-WI	all	IRC/FERC	SSG-WI, CMA Work Group		NERC must have input do to implemintation
47	Congestion Management	System Market Modeling Coordination		Operational Model Updates	Areas must have up to date models for operational use of other areas across the seam	National	NERC	NERC	IRC/NERC	Limited		ok
75	Congestion Management	System Market Modeling Coordination		Market Design - Day Ahead. Model objective function	Does the use of both AC and DC OPFs introduce compatibility problems? (Issue I.b.8)	Regional	Western Interconect SSG-WI	NERC	IRC/NERC	SSG-WI, CMA Work Group		ok
121	Congestion Management	System Market Modeling Coordination		Market flow data - reflect ISN and SDX data	Standardize inputs to estimation of power flows (i.e., GLDFs, outages, etc…).	Regional	PJM/MISO	NERC	IRC/NERC	In PJM/MISO Congestion Management Proposal Whitepaper		ok
123	Congestion Management	System Market Modeling Coordination		GDLF calculation	Standardized methodology for determining distribution factors - standard OPF model for each interconnection?	Regional	PJM/MISO	NERC	IRC/NERC	In PJM/MISO Congestion Management Proposal Whitepaper		ok
135	Congestion Management	System Market Modeling Coordination		Historic NNL values should not be reflected indefinitely in the future, and an appropriate mechanism to rationalize the historic flows to recognize eventual market conditions should be developed		Regional	PJM/MISO	PJM/MISO	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper	Possible NERC reliability issue.	Reliability related due to involvement of multiple parties and required coordination.
133	Congestion Management	Transmission Market Design	Redispatch of Generation	Define "RTO area wide dispatch"	AJR - This refers to centralized dispatch across a RTO Footprint, rather than within a CA Boundary.	Regional	PJM/MISO	PJM/MISO	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper		ok
110	Congestion Management	Transmission Market Design	Transmission Market Manipulation	ATC Manipulation - Market participants schedule transactions day-ahead and beyond with no inter to deliver energy. Cancellation in real-time by a market participant results in unused ATC, ramp capability that cannot be used by other market participants. Valuable capability is left unused.		Regional	PJM/ NYISO/ ISO-NE	PJM/ NYISO/ ISO-NE	IRC/FERC	In Northeast Power Markets Seams Action Plan	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Relibility impact of implementation
53	Congestion Management	Transmission Market Design	Transmission Service Product Type Priority	CAISO ETC rights scheduling - Contract Reference Number	CAISO uses Contract Numbers to track ETC rights. This causes Phantom Congestion and does not allow ETC rights holders to sell and schedule their transmission	Regional	Western Interconnect SSG-WI	Western Interconnect SSG-WI	IRC/FERC	No		ok
88	Congestion Management	Transmission Market Design	Transmission Service Product Type Priority	Market Design - Day Ahead. Centralized Unit Commitment.	Does a recallable physical right conflict with a redispatch set in a day-ahead clearing process? (Issue I.b.21)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		Inherient reliability issues in ATC. NERC task force has begun the work.
98	Market Design	Energy Market Design and Coordination	Demand Side Energy Market Coordination	Market Design - Post Real Time. Settlement stages	How does bidding or demand-side response between or among RTO's affect the scheduling and dispatch of obligations within the RTO's? Can these kinds of trades between RTOs be accommodated? Does trade of these services between RTOs have implications for either the exporting or importing RTOs ability to meet reliability criteria? (Title to power needs to be established) (Issue II).	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Reliability componets of ATC; Inherient reliability issues in ATC. NERC task force has begun the work

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
90	Market Design	Energy Market Design and Coordination	Hour Ahead & Real-Time Energy Market Coordination Across Market Interfaces	Market Design - Hour Ahead. Timing	How does hour-ahead market integrate with neighbors who do not have hour-ahead process? (Issue I.c.2)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	NAESB, NERC, & IRC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
91	Market Design	Energy Market Design and Coordination	Hour Ahead & Real-Time Energy Market Coordination Across Market Interfaces	Market Design - Hour Ahead. Energy Market, Congestion Management Market, and Ancillary Services Market	Is it necessary to align real time markets? If so, can a method be developed to produce consistent real-time prices at the boundaries? (avoid an price discontinuity due to separate calculation of prices with different information.) (Issue I.d.1)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Change to Regional & Multiple; see #26
93	Market Design	Energy Market Design and Coordination	Hour Ahead & Real-Time Energy Market Coordination Across Market Interfaces	Market Design - Real Time. Dispatch interval	Can a method be developed to produce consistent real-time prices at the boundaries? (avoid an price discontinuity due to separate calculation of prices with different information.) If not, can discontinuities be tolerated or managed? [This may be more of a settlements issue than a consistency issue.] (Issue I.d.3)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
131	Market Design	Energy Market Design and Coordination		Express sunset provisions for implementation of Day 2 markets		Regional	PJM/MISO	PJM/MISO	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper		ok
113	Market Design	Green Power Market		Green power attributes trading		National	NAESB	NAESB	Regulatory / NAESB	In Northeast Power Markets Seams Action Plan		ok
96	Market Design	Market Settlement Systems	Energy Market Settlement Process at Market Interfaces	Market Design - Real Time. Penalties	Do settlement systems have to be common as long as price discontinuities a the boundaries are managed? (Issue I.e.1)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	NAESB/IRC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Relibility impact of implementation
97	Market Design	Market Settlement Systems	Energy Market Settlement Process at Market Interfaces	Market Design - Post Real Time. Settlement stages	How are inter-RTO settlements managed? (Includes the revenue adequacy issues related to achieving consistent prices.) (Issue I.e.2)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	NAESB/IRC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Change to Regional
86	Market Design	Transmission Ancillary Service Market Design and Coordination	Ancillary Service Auction Coordination	Market Design - Day Ahead. Ancillary Service Market	All three propose auctions: Do the auctions have be identical? Is it possible to use price exchange (say as imputed bids) in connection with interactive calculation to minimize the spread between the A/S auctions? (Issue I.b.19)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
81	Market Design	Transmission Ancillary Service Market Design and Coordination	Ancillary Service Prices at Market Interfaces	Market Design - Day Ahead. Congestion Prices.	Can a "best practice" model for definition and acquisition of ancillary services products be developed to produce consistent prices at the RTO boundaries? (Issue I.b.14)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
16	Market Design	Transmission Ancillary Service Market Design and Coordination	Reactive Power Compensation	Compensation for Reactive Power	Lack of compensation lessens incentives for operators to solve problems and for accountants to spend money on metering	National	NAESB	NAESB	IRC/FERC	Yes / IIPTF	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
85	Market Design	Transmission Ancillary Service Market Design and Coordination	Transmission Service Requirements for Ancillary Service Delivery	Market Design - Day Ahead. Ancillary Service Market	Does the RTO of the A/S seller recognize the transmission capacity reservation required to enable the reserves to respond for outages in the RTO of the buyer? (Issue I.b.18)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	NAESB/IRC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Inherient reliability issues in ATC. NERC task force has begun the work
74	Market Design	Transmission Ancillary Service Market Design and Coordination		Market Design - Day Ahead. Model objective function	What is the effect of linking energy and ancillary service markets in the optimizations on model coordination issues? (Issue I.b.7)	Regional	Western Interconect SSG-WI	all	NAESB, NERC, & IRC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
83	Market Design	Transmission Ancillary Service Market Design and Coordination		Market Design - Day Ahead. Ancillary Service Market	When ancillary services are provided from within one RTO for another RTO, does the providing RTO recognize them as obligations within the seller's RTO? (Issue I.b.16)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
84	Market Design	Transmission Ancillary Service Market Design and Coordination		Market Design - Day Ahead. Ancillary Service Market	How can AS bids be coordinated across three markets to avoid both double counting and inefficient limitations on bids? (Issue I.b.17)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
87	Market Design	Unit Commitment Procedure Standardization		Market Design - Day Ahead. Acquisition Mechanism	Does unit commitment need to be standardized? Is this an area where each RTO can have its own method, which matches its resource mix and system responsiveness? (Rapid response of hydro gen. versus lead time requirements for thermal gen.) (Issue I.b.20)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	As long as this is the commercial practice of hedging - NOT NERC
13	Market Design	Unscheduled/Parallel Path Flow Management	Compensation for Unscheduled/Parallel Path Flow	Compensation for Unscheduled Flows of Electricity	Lack of compensation lessens incentives for operators to solve problems and for accountants to spend money on metering.	National	NAESB	NERC	IRC/NAESB	Yes / IIPTF	All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
15	Market Design	Unscheduled/Parallel Path Flow Management	Compensation for Unscheduled/Parallel Path Flow	Compensation for Loop Flow	Lack of compensation lessens incentives for operators to solve problems and for accountants to spend money on metering.	National	NAESB	NERC	IRC/NAESB	Yes / IIPTF	All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
29	Market Design	Unscheduled/Parallel Path Flow Management	Compensation for Unscheduled/Parallel Path Flow	Allocation of transmission capacity on reciprocal flow gates amounts to transmission service without compensation. Legitimizes "parallel loop flow".		National	NAESB	NERC	IRC/NAESB		All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
66	Market Design	Unscheduled/Parallel Path Flow Management	Compensation for Unscheduled/Parallel Path Flow	Market Design - Prior to Day Ahead. Duration	How will rights for loop flows (non-contrac flows) in other RTOs be allocated/acquired? (Issue I.a.7)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/NAESB	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
134	Market Design	Unscheduled/Parallel Path Flow Management	Compensation for Unscheduled/Parallel Path Flow	Compensation for parallel flows		National	NAESB	NAESB	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper	All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
142	Market Design	Unscheduled/Parallel Path Flow Management	Compensation for Unscheduled/Parallel Path Flow	Pricing for native load loop flow impacts		Regional	Multiple	Multiple	IRC/FERC	No	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
77	Market Monitoring/ Compliance	Anti-Gaming Coordination		Market Design - Day Ahead. Schedule Components	Will different RTO congestion management systems enhance opportunities for gaming or affect generation dispatch efficiency? (Issue I.b.10)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
11	Market Monitoring/ Compliance	Market Monitoring Entity Requirements		Market Oversight	New and mature markets need oversight to ensure that existing rules are complied with and new rules are adequate in meeting the scenarios they were designed to govern. Solution: Independent Market Auditor or Monitor.	Regional	Multiple	Multiple	FERC	Yes - SSG - WI		ok - not NERC
94	Market Monitoring/ Compliance	Penalty/Sanction Coordination		Market Design - Real Time. Imbalance Price	Do penalties need to be the same in each RTO? (Issue I.d.4)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
95	Market Monitoring/ Compliance	Penalty/Sanction Coordination		Market Design - Real Time. Penalties	Will inconsistent imbalance penalty practices hamper non-dispatchable resource sales across RTO boundaries? (Issue I.d.5)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		Issues with Network models and has reliability implications
3	Market Standards	Energy Market Standard Product Definitions		Definition & treatment of Firm/nonfirm Power	Annual Plan Item 4ci moved from MOS	National	NAESB	all	NAESB	No	NAESB to take lead on definition development in cooperation with other resp. orgs.	ok
10	Market Standards	Energy Market Standard Product Definitions		Energy Products	Entities have disagreements concerning the definitions of various energy products. Solution: Standardized Energy Products.	National	NAESB	NAESB	NAESB	Yes - WECC	NAESB to take lead on definition development in cooperation with other resp. orgs.	Applies for both reliability and transaction check out
25	Market Standards	Energy Market Standard Product Definitions		Need for common physical market and products regional variations permitted		National	NAESB	NAESB	NAESB	No	NAESB to take lead on definition development in cooperation with other resp. orgs.	ok
34	Market Standards	Energy Market Standard Product Definitions		Clarification of Product Definitions	Complete/Standard definitions for Liquidated Damages (LD), "Into", etc.	National	NAESB	NAESB	NAESB	No	NAESB to take lead on definition development in cooperation with other resp. orgs.	Involvement with reliability standards

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
139	Market Standards	Energy Market Standard Product Definitions		Standard definition of energy products	Energy products and services have common attributes in all markets. Standards definitions will improve efficiencies in communicating and operating between areas with various market designs	National	NAESB	NAESB	NAESB	Yes	NAESB to take lead on definition development in cooperation with other resp. orgs.	Impact to reliability
7	Market Standards	Market Standard Communication Protocols and Transparency		Market Price Information	Market pricing methodology not comprehensive, consistent or dependable Solution: Standardized Indices, Independently Managed.	Regional	Western Interconnect	Western Interconnect	NAESB, FERC, IRC, and Regulators	No	See comments under org. #42 and #52.	Impact to reliability
42	Market Standards	Market Standard Communication Protocols and Transparency		Data Visibility	Inability to view neighboring markets information through a common software such that this sometimes hinders Market Participants ability to complete business in a timely fashion.	National	NAESB	NAESB	NAESB/IRC	Yes	NAESB currently working on issue.	Impact to reliability
52	Market Standards	Market Standard Communication Protocols and Transparency		Confidentiality of Data and Information Shared	Standards of Confidentiality would enhance the capability to resolve data sharing and information posting	National	NAESB	NAESB	NAESB/IRC	Limited	NAESB currently working on issue.	ok
71	Market Standards	Market Standard Communication Protocols and Transparency		Market Design - Day Ahead. Model spatial granularity	To what extent do RTOs need to see other RTOs' scheduling information? (Issue I.b.4)	Regional	Western Interconect SSG-WI	all	NERC/IRC	SSG-WI, CMA Work Group		Impact to reliability
140	Market Standards	Market Standard Communication Protocols and Transparency		Standard messaging protocols for market notifications	Market participants will benefit from common messaging protocols.	National	NAESB	NAESB	NAESB/IRC	No	NAESB currently working on issue.	ok
1	Market Standards	Market Standard Operating Time		Non Standard Time Zone	The lack of a standard Time Zone causes Market Inefficiencies	National	NAESB	NAESB	NAESB	No		ok
136	Market Standards	Market Standard Operating Time		Inconsistent Market Event Timelines	There is a disconnect between the timing of bids and offers in the Ontario market and the releasing of firm transmission in MISO for which schedules have not been submitted for use as non-firm transmission.	Regional	IMO/MISO	NPCC/ ECAR	IRC	No	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
137	Market Standards	Market Standard Operating Time		Inconsistent Market Event Timelines	Timing issues between bid based markets (one example only - not knowing whether your bid has been accepted in "sink" market before having to commit in the "source" market).	Regional	IMO/NYISO	IMO/NYISO	IRC	No	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
14	Market Standards	Physical and/or Financial Resolution of Inadvertent Interchange		Compensation for Inadvertent Interchange	Lack of compensation lessens incentives for operators to solve problems. Explicit compensation for inadvertent interchange is necessary for appropriate definition of other products, in that such compensation ensures that the defined product is delivered.	National	NAESB	NAESB	IRC/FERC	Yes / IIPTF	NAESB currently working on issue.	ok
111	Market Standards	Transmission Ancillary Service Market Design and Coordination	ICAP Market Standardization	Capacity Market - Differences in ICAP definitions, requirements, deliverability, and recall procedure have hampered the ability of suppliers to sell ICAP between Northeast ISOs (include regional resource adequacy model, external 30-minute reserves participation, harmonize demand response programs)		Regional	PJM/ NYISO/ ISO-NE	PJM/ NYISO/ ISO-NE	NAESB/IRC	In Northeast Power Markets Seams Action Plan		ok
46	Planning	Transmission Expansion and Generator Interconnection Coordination	Generator Interconnection - Affected Systems	Generation Interconnection Studies	Generation Interconnections close to seam affects both areas	National	NAESB	all	IRC/FERC	Limited	FERC Order 2003 addressed issue.	ok
57	Planning	Transmission Expansion and Generator Interconnection Coordination	Generator Interconnection Transmission Requirements	Transmission interconnection procedures	Need consistent approach to treating merchant generation interconnection procedures with transmission	Regional	Multiple	Multiple	IRC/FERC	Northeast ISO	FERC Order 2003 addressed issue.	ok
114	Planning	Transmission Expansion and Generator Interconnection Coordination	Interregional Transmission Planning Procedures	Coordination of interregional planning including transmission facilities and generator interconnection procedures		Regional	Multiple	NERC	IRC/FERC	In Northeast Power Markets Seams Action Plan	Changed from National/NAESB entry.	ok
26	Planning	Transmission Expansion and Generator Interconnection Coordination	Transmission Expansion Cost and Construction Responsibilities	Transmission expansion planning - coordination between systems and determine who is obligated to build and pay for improvements	Being reviewed by PJM/MISO.	Regional	Multiple	Multiple	IRC/FERC	Yes		ok
48	System Reliability	Emergency Operations	Computer Failures	Communication of Computer Failures	Needed for reliable operations and emergency operations	National	NERC	NERC	NERC	Limited		ok
49	System Reliability	Emergency Operations	Emergency Operating Procedures for Market Interfaces	Emergency Procedures	Emergency procedures require operations across seams	National	NERC	NERC	IRC/NERC	Limited	All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok

Seams Issues Matrix

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Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
128	System Reliability	Emergency Operations	System Monitoring and Contingency Plans	Contingency plans; critical path analysis		National	NERC	NERC	NERC/IRC	In PJM/MISO Congestion Management Proposal Whitepaper	All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
118	System Reliability	Emergency Operations	System Restoration Procedures	Emergency and Restoration Plans - operating procedures for Voltage Collapse and Stability		National	NERC	NERC	NERC	Included in Attachment A of MISO and PJM Reliability Plans	All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
122	System Reliability	Functional Model		Control area - control zone responsibilities vs. market operator		National	NERC	NERC	NERC	In PJM/MISO Congestion Management Proposal Whitepaper		ok
50	System Reliability	Generation-Load Balance	Interchange Schedule Ramping Requirements	Schedule Ramp Management	Ramping standard differences across the seams hinder business	National	NAESB	NERC	NAESB & IRC	Limited		ok
108	System Reliability	Generation-Load Balance	Interchange Schedule Ramping Requirements	Failure of Transactions due to Ramping of Control Area Interchange - Desirable transactions between control areas may be "blocked" from access to the grid due to insufficient dispatch capacity to absorb large schedule changes while maintaining energy/load balance within the control area.		Regional	PJM/ NYISO/ ISO-NE	all	NAESB, NERC & IRC	In Northeast Power Markets Seams Action Plan	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
51	System Reliability	Generation-Load Balance	Inter-Market Resource Requirements	Resource Adequacy	Parties in one area rely on resources in other areas. Validation of their reliance on the other area must be coordinated.	National	NERC	NERC	IRC/FERC	Limited	Other Resp. org. may be involved.	ok
27	System Reliability	Inter-Market and Intra-Market Facility Outage and Maintenance Coordination		Outage Maintenance Coordination	Being reviewed by PJM/MISO. See PJM presentation "Status Report to FERC on July 31, 2002 Alliance Order" dated Jan 2003, page 6 as posted under NAESB WEQ Seams subcommittee July 8 date	National	NERC	NERC	IRC/NERC	Yes	All associated commercial impacts should be referred to NAESB.	ok
45	System Reliability	Inter-Market and Intra-Market Facility Outage and Maintenance Coordination		Coordination of Transmission and Generation Outages	Both forced and planned outages	National	NERC	NERC	IRC/NERC	Limited	All associated commercial impacts should be referred to NAESB.	ok
120	System Reliability	Inter-Market and Intra-Market Facility Outage and Maintenance Coordination		Facilities in close electrical proximity under different RTOs - outage maintenance coordination, access and expansion planning		Regional	PJM/MISO	NERC	IRC/NERC	In PJM/MISO Congestion Management Proposal Whitepaper	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
30	System Reliability	Operate Markets Within Transmission Limits		Market allocations over flow gates are approved without regard to flow gate capacity resulting in over subscription of flow gates.		National	NERC	NERC	NERC		All associated commercial impacts should be referred to NAESB. Action complementary to NERC efforts.	ok
99	System Reliability	Operating Reserves/Resource Adequacy	Energy and Reactive Capacity Reserve Requirements	Demand Response Participation.	If there is an RTO capacity requirement for all RTOs, how will double-counting across RTOs be avoided? Note: RTO West and WestConnect are not currently proposing a resource adequacy requirement independent of the requirement for balanced schedules. (Issue X.1).	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC	SSG-WI, CMA Work Group		ok - unless this includes ATC which should be a NERC lead issue
100	System Reliability	Operating Reserves/Resource Adequacy	Energy and Reactive Capacity Reserve Requirements	Resource Adequacy. Resource Adequacy Assessment.	If there is an RTO capacity requirement for all RTOs, do different resource adequacy approaches result in different penalty structures and if so, does this create problems, e.g., opportunities for arbitrage? Note: RTO West and WestConnect are not currently proposing a resource adequacy requirement independent of the requirement for balanced schedules. (Issue X.2).	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	NERC	SSG-WI, CMA Work Group		ok
119	System Reliability	Operating Reserves/Resource Adequacy	Energy and Reactive Capacity Reserve Requirements	NERC Regional Criteria and Reserve Sharing - define operating policy changes, waivers, or certifications that are needed to permit security-constrained dispatch over multiple existing control areas to allow flows not to be tagged; Joint Reliability Coordination - NERC Policies 5 and 9		National	NERC	NERC	IRC NERC	In PJM/MISO Congestion Management Proposal Whitepaper	All associated commercial impacts should be referred to NAESB.	ok

Seams Issues Matrix

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Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
82	System Reliability	Operating Reserves/Resource Adequacy	Reliability Aspects of Inter-Market Scheduling of Ancillary Services	Market Design - Day Ahead. Ancillary Service Market	How does bidding of ancillary services between or among RTOs affect the scheduling and dispatch obligations within the RTOs? Can this kind of trade between RTOs be accommodated? Does trade of these services between RTOs have implications for either the "exporting" or "importing" RTO's ability to meet reliability criteria? (Issue I.b.15)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
107	System Reliability	Transaction Curtailments	Market Impacts of Transaction Curtailments for Reliability Reasons	Transaction Curtailment - Transaction curtailments for security may extend beyond the reliability need due to differences in market timing. Extended curtailments are disruptive to both the marketplace and the reliable operation of the grid.		Regional	PJM/ NYISO/ ISO-NE	PJM/ NYISO/ ISO-NE	IRC/FERC	In Northeast Power Markets Seams Action Plan	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok - if deals with timing issues
126	System Reliability	Unscheduled/Parallel Path Flow Management	Interchange Distribution Calculator Requirements	Definition of coordination between market entity (PJM or MISO) and the IDC; define necessary changes to IDC; updates of base cases and book of flowgates		Regional	PJM/MISO	NERC	NERC	In PJM/MISO Congestion Management Proposal Whitepaper		Business practice and reliability associated with ramping
127	System Reliability	Unscheduled/Parallel Path Flow Management	Interchange Distribution Calculator Requirements	Industry oversight and reporting of PJM and MISO impact calculations - IDC cost, cost allocation to reimburse NERC		Regional	PJM/MISO	PJM/MISO	NERC	In PJM/MISO Congestion Management Proposal Whitepaper		Reliability componets of ATC; Inherient reliability issues in ATC. NERC task force has begun the work
23	System Reliability	Unscheduled/Parallel Path Flow Management	Parallel Path/ Unscheduled Flow Monitoring and Operation	How different congestion management methodologies will interact to ensure parallel flows and impacts are recognized and controlled to ensure system reliability.	Being reviewed by PJM/MISO.	Regional	PJM/MISO	NERC	IRC/FERC	Yes	Currently being addressed on a regional basis. Potential for North American standardization with regional deference. All associated commercial impacts should be referred to NAESB.	ok
24	System Reliability	Voltage Control		Voltage Operating Procedures	Being reviewed by PJM/MISO. See PJM presentation "Status Report to FERC on July 31, 2002 Alliance Order" dated Jan 2003, page 6 as posted under NAESB WEQ Seams subcommittee July 8 date	National	NERC	NERC	NERC/IRC	Yes	All associated commercial impacts should be referred to NAESB.	ok
5	System Reliability	Operating Reserves/Resource Adequacy	Energy and Reactive Capacity Reserve Requirements	Provision of reserves across multiple control areas	Annual Plan Item 4cii moved from MOS	National	NERC	NERC	NERC	No	All associated commercial impacts should be referred to NAESB.	ok
39	Transaction Scheduling	Controllable Line Scheduling		Controllable Line Scheduling	Concept of operations for general methodology to schedule controllable lines between RTOs. Being reviewed by NYISO	Regional	NYISO/ISO-NE/PJM	NERC	NAESB/IRC	Yes	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
58	Transaction Scheduling	Controllable Line Scheduling		Controllable line scheduling	Concept of Operations for general methodology to schedule controllable lines has been drafted. A multi-ISO stakeholder group (similar to JCAG) needs to be formed to review the draft Concept of Operations to provide stakeholder input.	Regional	NYISO/ISO-NE	NYISO/ISO-NE	NAESB/IRC	Northeast ISO	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Interregional planning directly impact sreliability
60	Transaction Scheduling	Controllable Line Scheduling		Cross-border price convergence	The lack of price convergence at the control area boundaries may inhibit the desire of market participants to arbitrage between neighboring markets. This issue is being referred to the individual ISO Market Committees for further definition on the business issue that needs resolution.	Regional	NYISO/ISO-NE	NYISO/ISO-NE	IRC	Northeast ISO	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	AFC directly impacts reliability
12	Transaction Scheduling	Interchange Scheduling Standardized Protocols	Develop Electronic Scheduling	Interchange/Intrachange Scheduling Data Exchange	Current E-Tagging process is inadequate for exchanging reliability and market data within the Western Interconnection. Solution: Electronic Scheduling	National	NAESB	NAESB	NAESB, NERC	Yes - WECC	NAESB already addressing this issue.	Reliability componets of ATC; Inherient reliability issues in ATC. NERC task force has begun the work
41	Transaction Scheduling	Interchange Scheduling Standardized Protocols	Inter-Market Ramping Requirements Standardization	Scheduling Coordination (including Ramp Rates)	RTOs have different ramp rates and scheduling requirements that require Market Participants to complete multiple submissions for the same transaction.	National	NAESB	NERC	NAESB	Yes	NAESB already addressing this issue.	ok
79	Transaction Scheduling	Interchange Scheduling Standardized Protocols	Standardize Inter-Market Scheduling Timelines	Market Design - Day Ahead. Other Scheduling Requirements	Should the time intervals and submission times be synchronized to mitigate obstacles to inter-RTO trade? (Issue I.b.12)	National	NAESB	NAESB	NAESB	SSG-WI, CMA Work Group	NAESB already addressing this issue.	ok

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78	Transaction Scheduling	Interchange Scheduling Standardized Protocols	Tools and Procedures to Accommodate Inter-Market Interchange Scheduling Requirements	Market Design - Day Ahead. Schedule Components	Can tools be developed for scheduling submission that assist the user in meeting any differences in protocols between RTOs? (Issue I.b.11)	National	NAESB	all	NAESB	SSG-WI, CMA Work Group	NAESB already addressing this issue.	ok
8	Transaction Scheduling	Interchange Scheduling Standardized Protocols		Scheduling	Inconsistent procedures among entities. Solution: Western Interconnection Standardized Interchange Scheduling Protocols.	Regional	Multiple	Multiple	NAESB	Yes - SSG - WI	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Outage coordination impacts reliability
76	Transaction Scheduling	Interchange Scheduling Standardized Protocols		Market Design - Day Ahead. Model objective function	Do differences in the scheduling requirements (e.g., requirements for balanced schedules) between RTOs create seams problems for inter-RTO schedules? If so, can these problems be mitigated? (Issue I.b.9)	Regional	Western Interconect SSG-WI	all	NAESB, NERC, & IRC	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	Impacts reliability
104	Transaction Scheduling	Interchange Scheduling Standardized Protocols		Transmission Checkout Failure - Operators curta transactions due to mismatched tag data, different MW volumes, etc. The curtailment of transactions due to data incompatibility is disruptive to both the marketplace and the reliable operation of the grid.		National	NAESB	NAESB	NERC	In Northeast Power Markets Seams Action Plan	All associated commercial impacts handled by NAESB. Action complementary to NERC efforts.	ok
106	Transaction Scheduling	Interchange Scheduling Standardized Protocols		Transaction Scheduling - Inconsistent information and market timing rules lead to uncertainty and risk that discourage the scheduling of some inter-regional transactions.		National	NAESB	NAESB	NAESB	In Northeast Power Markets Seams Action Plan	All associated commercial impacts handled by NAESB. Action complementary to NERC efforts.	Impacts reliability
32	Transmission Service	Transmission Market Design	Transmission Service Product Type Priority	MISO- PJM market allocation will give preference to the market as Network over PTP even though the Market allocation my be a non paying transmission customer.		Regional	PJM/MISO	PJM/MISO	IRC/FERC		Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
40	Transmission Service	Transmission Market Standard Product Definitions and Priorities	Multiple Proxy Bus Development	Multiple Proxy Buses for Free Flowing Interfaces	Development of multiple proxy buses between RTOs for scheduling and pricing	Regional	NYISO/ISO-NE/PJM	NYISO/ISO-NE/PJM	IRC/NAESB	Yes		ok
4	Transmission Service	Transmission Market Standard Product Definitions and Priorities		Definition & treatment of Firm/nonfirm Transmission	Annual Plan Item 4cii moved from MOS	National	NAESB	all	IRC/FERC	No	NAESB to take lead on definition development in cooperation with other resp. orgs.	Impact to reliability
103	Transmission Service	Transmission Market Standard Product Definitions and Priorities		Transmission Service - Market participants require consistent treatment of transmission products across multiple control areas to reduce perceived market risk, scheduling confusion and uncertainty.		National	NAESB	NAESB	IRC/FERC	In Northeast Power Markets Seams Action Plan		ok
124	Transmission Service	Transmission Market Standard Product Definitions and Priorities		Wide area dispatch and network resources to network loads - resource deliverability if not a firm network load		Regional	PJM/MISO	PJM/MISO	IRC/FERC	In PJM/MISO Congestion Management Proposal Whitepaper	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
141	Transmission Service	Transmission Market Standard Product Definitions and Priorities		Replacement of contract path with flow-based transmission service		Regional	Multiple	Multiple	IRC/FERC	No	National / must be at least interconnect wide.	Impact to reliability
54	Transmission Service	Transmission Service Pricing	Discounting of Market Interface Transmission ATC	Transmission service charge discounting	Ability for TOs to discount TSC rates on external interfaces to selectively reduce export charges and encourage use of ties The software exists, however, there does not appear to be any business incentives to exercise discounts.	Regional	NYISO/ ISO-NE	NYISO/ ISO-NE	IRC/FERC	Northeast ISO		ok
22	Transmission Service	Transmission Service Pricing	Market Interface Transmission Service Pancaking	Rate pancaking elimination	Being reviewed by PJM/MISO.	Regional	PJM/MISO	PJM/MISO	IRC/FERC	Yes	Policy issue before FERC with national implications.	ok
38	Transmission Service	Transmission Service Pricing	Market Interface Transmission Service Pancaking	Rate Pancaking	Charges to Market Participants who conduct business over more than one RTO. Reciprocal agreements needed to eliminate these charges. NYISO and ISO-NE	Regional	NYISO/ISO-NE	NYISO/ISO-NE	IRC/FERC	Yes	Policy issue before FERC with national implications.	ok
105	Transmission Service	Transmission Service Pricing	Market Interface Transmission Service Pancaking	Export Charges (Pancaking) - Control-area specific export charges remove incentives to transact business when transaction margins are of the same magnitude or less than the prevailing export charges. Such charges include transmission and ancillary service components.		Regional	PJM/ NYISO/ ISO-NE	PJM/ NYISO/ ISO-NE	IRC/FERC	In Northeast Power Markets Seams Action Plan	Policy issue before FERC with national implications.	ok
117	Transmission Service	Transmission Service Procurement	Common Reservation System for Market Interface Transmission ATC	Contract Tie Capacity - One Stop Shopping		Regional	NAESB	NAESB	NAESB	No	NAESB already addressing this issue (OASIS 2).	ok

Seams Issues Matrix

(As Adopted at NAESB WEQ Meeting)

Orig #	Category	1ST Sub-Category	2ND Sub-Category	Description of Seam Issue	Comments	Issue Type	Resp Org	Prelim NERC Choice	Prelim IRC Choice	Currently Being Addressed	NAESB Support	NERC Comments
6	Transmission Service	Transmission Service Procurement	Common Western Interconnection Wide OASIS	Transmission Access	No transmission market one stop shopping available for the Western Interconnection - entities can't find needed information to efficiently conduct business on a preschedule or real-time basis. Solution: Common OASIS Site needed.	Regional	Multiple	NAESB	NAESB	Yes - Various Transmission Providers		ok
89	Transmission Service	Transmission Service Procurement	Hour Ahead Transmission Service Market Standardization	Market Design - Day Ahead. Release of Unused Transmission Capacity after Close of DA Markets	How are boundary prices to be synchronized between RTO's if only one RTO has a hour ahead process? Is it necessary to align hour ahead markets? (Issue I.c.1)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	NAESB, NERC, & IRC	SSG-WI, CMA Work Group		ok
33	Transmission Service	Transmission Service Procurement	Intra-Hour Transmission Service Procurement	Standard for Purchasing of Intra-Hour Transmission	The ability to purchase transmission after the top of the hour when the transmission service is predetermined as available in prior hour.	National	NAESB	NAESB	IRC/FERC	No		ok
65	Transmission Service	Transmission Service Procurement	Long-Term Transmission Service for New Construction	Market Design - Prior to Day Ahead. Duration	To the extent that longer term transmission rights are needed for new construction, can agreement be reached to issue long term rights? (Issue I.a.6)	Regional	Western Interconect SSG-WI	Western Interconect SSG-WI	IRC/FERC	SSG-WI, CMA Work Group		ok
67	Transmission Service	Transmission Service Procurement	Secondary Transmission Service Market Standardization	Market Design - Prior to Day Ahead. Primary Release Mechanism	There seems to be agreement here that a secondary market would be outside the RTO. If the resulting secondary market is not westwide, will coordination be needed? (Issue I.a.8)	Regional	Multiple	Multiple	NAESB	SSG-WI, CMA Work Group	Currently being addressed on a regional basis. Potential for North American standardization with regional deference.	ok
112	Transmission Service	Transmission Service Procurement	Transmission Service for ICAP Market	Long-term Transmission Service Availability to Support ICAP Transactions - Firm transmission reservation requirements to establish "Deliverability" as a requirement to buy external ICAP results in an economic advantage for internal suppliers and a barrier to market entry fo external suppliers.		Regional	PJM/ NYISO/ ISO-NE	PJM/ NYISO/ ISO-NE	IRC/FERC	In Northeast Power Markets Seams Action Plan		ok
28	Transmission Service	Transmission Service Settlement	Consolidate Multiple Market Transmission Service Settlement Statements	Multiple transmission service charge invoicing	Being reviewed by PJM/MISO.	National	NAESB	NAESB	NAESB/IRC	Yes	Related to issue #56.	ok
56	Transmission Service	Transmission Service Settlement	Consolidate Multiple Market Transmission Service Settlement Statements	Multiple transmission service charge invoicing	Companies that conduct business across Control Area borders are faced with receiving a TSC bill from each TO. A single charge should be provided to each transaction to the appropriate parties and revenues allocated to the TOs according to the appropriate usage formulas.	Regional	NYISO/ISO-NE	NYISO/ISO-NE	IRC & NAESB	Northeast ISO	Currently being addressed on a regional basis. Potential for North American standardization with regional deference. Related to issue #28.	ok

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