NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Interchange Standard and Business Practices Meeting

October 27–28, 2003
Cincinnati, Ohio

Minutes

Welcome and Introduction

Monroe Landrum chaired the meeting. Mr. Landrum welcomed the group and requested introductions. The chairman thanked Doug Hils and Cinergy for hosting the meeting.

The chair reminded the group that the meeting is being held under NERC and NAESB Antitrust Compliance Guidelines. The meeting notice, agenda, and attendance list are affixed as **Exhibits A, B,** and **C**, respectively.

The agenda was approved.

Purpose of the meeting

The chair reviewed the purpose of the meeting, which is to begin the coordination process to ensure that, "the development of business practice and reliability standards is coordinated and harmonized with the development, approval and implementation of ISO and RTO policy and that every practicable effort is made to eliminate overlap and duplication of efforts."[1]

Roman Carter – Chairman, Coordinate Interchange Business Practices Task Force Scope

The NAESB CIBPTF was formed to review standards proposed by NERC and to determine if a complimentary business standard is needed. NAESB and NERC should coordinate their standards development to keep their individual processes in sync. The CIBPTF's scope is affixed as **Exhibit D**.

This group, and this meeting, should help to define what "is reliability" and what "is business" and where and what are the grey areas. We do not want items to fall between the cracks.

Mike Oatts – Chairman, Coordinate Interchange Standard Drafting Team

The CIDST focus is limited because the group must address what is in the CI SAR. The standard is not designed to fully replace Policy 3. The drafting team plans to post the standard for public comment next month. Mr. Oatts presentation is affixed as **Exhibit E**.

Doug Hils – Chairman, Interchange Subcommittee

More than any other NERC policy, Policy 3 addresses business practices. As we review Policy 3, we need to identify business practices as well as the items that affect reliability. When the group identifies items that relate to reliability, and measures cannot be written for those items, then, it prompts the

---

[1] Joint Memorandum of Understanding for the NAESB, NERC, and IR Council.

question, is it really a reliability item? The groups need to review these types of issues. Mr. Hils presentation is affixed as **Exhibit F**.

Note on Exhibit F: "The list of questions on slide 6 were included in error and were removed."

The IS also wants to ensure that nothing falls through the cracks and everything in Policy 3 is addressed. Mr. Hils lead the discussion on the following issues:

Transition from Policy to Standards:

Discussion

- We do not need to identify a tool. The standard does not mandate a tool. Policy 3 mandated certain functions that limited the market. The market said that TLR is an unfair process. TLR and E-Tagging may be used but it should not be mandated. The responsibilities should be defined, just as the CI Standard is doing now, but we should not define a specific tool.
- How does the "reliability" side ensure that the market standards are developed and implemented? What about items that are not reliability but may not be business practices (or considered to be business practices)? Does NAESB pick this up or is no one going to address this?
- Mandated tools are being used at this time for interchange and overloads. Will a common tool be used for flow-based analysis that will cut interchange? The tool may not be the IDC but the industry will need some common ideology or common tool for overloads? A generator in another area may cause parallel flows. If your MWs are flowing on my line and causing a problem a tool is needed to help resolve the problem. The tool must be able to solve problems that cannot be resolved with economic redispatch; therefore, the tool cannot just be maintained as a business tool. The tool must have a large area view.
- Some tool must exist for moving interchange. The packets of data needed for communicating interchange data must be standardized. Is it a standard protocol? If so, where does it belong and who develops it? The communications must be standardized.
- An understanding of what data is needed between systems is needed.
- If everyone has different methodologies, then we can be headed for trouble.
- The industry is moving to quarter hour scheduling. This is not possible without standardization. The industry has wanted for years to eliminate phone calls; therefore, the bits and bites must be standardized in a common format.
- Reliability needs to have all the information that is required. Congestion management is not available for all situations, other recourse has to be used to prevent the collapse of the system. Some define reliability, as economic congestion — which is not correct. If NAESB says, I don't like the method used to control flows, as they are economically binding, then NAESB should address that issue.
- Resolving economic congestion is different than resolving an IROL (interconnected reliability operating limit). An IROL is reliability and economic congestion is business.

Policy 3 – Categories
Andy Rodriquez lead the discussion on categorizing Policy 3 into reliability and business items. Mr. Rodriquez's presentation is affixed as **Exhibit G**.

Discussion

- Break out the responsibilities in the current Policy 3 and come to some agreement, in general, with which group the standards and business practices belong. Both groups should work on the

> policy and we may need to meet again to decide if we are missing anything. Define what is reliability and then decide if another SAR/Standard needed to cover Policy 3.

- Define what are the major reliability issues in Policy 3 and ensure they are handled by a standard? The deliverables should state: here are the reliablity impacts and are these impacts addressed in a proposed Standard, and here are the business practices and NAESB will need to address these.
- The IS should decide what SARs need to be written to cover Policy 3 other than the CI Standard.
- **CI Agenda Item for November and potential IS Agenda Item for December:** Scheduling across a DC Tie is an issue the IS should address as it is not handled in the current draft of the CI Standard. At the next meeting of the CISDT the group will consider this omission. If the CISDT does not include it in the standard the IS should determine if it should submit a SAR on DC Ties.
- Currently the IDC does not have full industry stakeholder representation; therefore, it is difficult to say that the congestion management process is an industry process. The IDC may or may not be in place in the future. As of now the IDC does provide some equity solution. There will need to be an equity solution agreed to when the IDC and Tagging is replaced. The solution should not be a seams issue that is just open for the individual entities to define.
- To categorize Policy 3 the group should ask these questions, "If this item is not done what happens? Is reliability jeopardized? What is the intent of Policy 3?
- NERC items are the ones that take place after interchange is handed off to the IA; NAESB items will all probably be in tariffs. A simplistic view is: From the IA down is reliability and from the IA up is business.
- System operator operations will not change, as far as tools and operations, under Functional Model operations day one. They will still look at those things that they are still looking at now. But there will be a slow migration to other tools.
- Who takes ownership of E-Tagging?
- Two questions the groups need to answer:
  - What is the purpose of Policy 3 and
  - What are the reliability aspects of Policy 3?
- What is the reliability purpose for Policy 3 – the submission of data! Providing data is the only issue that is a "reliability" concern. If the Standard takes care of the data, then Policy 3 is essentially covered. Does the IS or CISDT care how that data is moved?
- One way to view Policy 3 is to say, "If it is not reliability then it is business."

Functional Model and the FMRTG – Jim Byrd

Jim Byrd, Functional Model Review Task Group chairman, provided an overview of the Model, Version 2, draft 12, dated October 23, 2003. Mr. Byrd's presentation is affixed as **Exhibit H**. Mr. Byrd provided a review of the history of the model; then, focused on bilateral transactions.

The FM only deals with the physical side of the business. When the PSE is ready to go physical with a deal then it comes under the purview of the FM. The business practices should define electrical products; these would then link to the model. Organizations are registered as responsible entities, responsible entities can delegate responsibilities to perform functions but the organization is still responsible for the function.

The regional reliability plan states which organizations are performing the reliability functions and then the regional plan goes to the OC for approval. In approving the regional plan NERC does not care who is certified. It is up to the organization to say I am performing the regional reliability functions. The OC is approving how but not who. The OC wants to ensure that the regional plan has a wide area look as required by the FM.

- There are ongoing discussions over, "Defining what is a wide area view."

- What is the guiding principle that the OC will use to say, what a certain reliability region will use to grade against, to state that its regional plan is acceptable?

The **FM** does not define how "big" a regional area should be. The certification process will define what is needed to perform as an organization and does the organization have the minimum tools and capability needed to perform the function.

The FM defines the tasks to perform these jobs. An entity must be registered to perform the function. This is all the FM does. This is separate from the transition that is going on now. The RC is independent of the NERC standards that are being developed or the certification that is being developed.

Bilateral Transactions – Physical Implementation and Real-time Management

Action – **Send to the CI Standard DT for discussion:** The word physical – or when a transaction goes physical – may be defined differently in the FM then by the CI Standard.

Action – **Send to the CI Standard DT for discussion:** Do we need as part of the CI Standard something that states, The Interchange Function enters transaction information into transaction management systems (e.g. IDC)?

Action – **Send to the CI Standard DT for discussion:** The Enhanced Scheduling Agent is not captured anywhere in the CI Standard or other standards. The ESA states that they will be considered source and sink for the interchange, the ESA also will request the raise or cut in generation. Should the ESA be included in the Standard?

Action – **Add as an IS agenda item:** The CI Standards states that dynamic transfers are handled in the model by stating that the DT is an agreement between two BAs and is handled as interchange. Does the IS agree?

Coordinate Interchange Standard – Mike Oatts

Coordinate Interchange Standard Drafting Team chairman Mike Oatts provided a presentation on the status of the CI Standard. The presentation included a discussion of the definitions of interchange and the various "states" of an interchange (See slide 5 in Exhibit E).

Timing Requirements in the CI Standard

Discussion
- Who will address the timing requirements for submittal of interchange? The BA could be set up to fail because the BA must implement interchange exactly as submitted but what if the BA does not receive the interchange in time to implement?
- The BA timing requirements will be part of entities tariffs.
- Cancellations and changes to interchange should be based on market rules.
- A failure process, or communications mode should be in place to ensure communications from the BA to the IA for confirmation of received interchange. This is step 4 in the diagram on interchange states.
- The "tool" will define if the BA does not receive the communication from the IA.
- As the interchange "state" changes the use of the terms approvals and confirms is important and should be clearly stated.

- Are revisions to a confirmed interchange addressed? Does a new SAR need to be submitted to address revisions?

Group Discussion – Monroe Landrum

Where do we go from here?

Discussion

- This has been a good forum to discuss these issues. It may be helpful for these groups to continue meeting and discuss Policy 3 and separating responsibility for IS, CISDT, and CIBPTF.
- After the end of this year, the CISDT will have comments back from the first posting of the Standard. These groups should meet again after the posting of the CI Standard.
- NERC and NAESB processes are ANSI approved, that should allow for input into the development of standards and business practices, respectively. The groups can comment on each other's work within those processes.
- When the market people are ready to post a business practice then groups like this that are interested in a specific subject e.g., interchange or inadvertent could meet to see if anything was missed.
- The chairman of these groups should be able to decide if another meeting of the groups is necessary instead of setting up a formal structure. These meetings should be for feedback and input and only scheduled when necessary.
- At the JIC meeting it was stated that there is a need for meaningful dialog and to eliminate duplication of efforts. Coordination is needed on a case-by-case basis.
- On the first day we decided to state what is reliability and then anything else was not going to be part of NERC's reliablity items. Therefore, the items that NERC will not develop a standard for will either not be addressed or be addressed by NAESB.
- The IS will resolve what to do with the Blue items (see Exhibit G) and determine if a SAR is addressing the item or if a SAR needs to be submitted.

Gordon Scott
Facilitator

Barbara Bogenrief

From:	Barbara Bogenrief
Sent:	Friday, October 03, 2003 1:20 PM
To:	interchange@nerc.com; coordintchgsdt@listserv.nerc.com; naesb1@aol.com
Cc:	Rocio Wong; Karen Spolar
Subject:	Interchange Standard and Business Practices Meeting - October 27-28, 2003

Cincinnati_Airport.pdf   Downtown_Cincinnati_Hotels_loc...   header   footer

                                        TO: INTERCHANGE SUBCOMMITTEE
        COORDINATE INTERCHANGE STANDARD DRAFTING TEAM
        NAESB-COORDINATE INTERCHANGE BUSINESS PRACTICES TASK FORCE

The NAESB-Information Technology Subcommittee meeting will be held on October 27-28, 2003
in Cincinnati, Ohio. The details follow.

Meeting:
Monday, October 27 - 1-5 p.m.
Tuesday, October 28 - 8 a.m.-3 p.m.

Location:
The Westin Cincinnati
21 East 5th Street
Cincinnati, OH 45202
Phone: 513-287-2298

The Westin is holding a block of rooms for the nights of October 26 and 27 at the rate of
$86 single/double occupancy. The cutoff for making reservations is Friday, October 10.
When you make your reservation, please be sure to mention "Cinergy Corp./Interchange-
Meeting" to receive the negotiated rate. Check-in is 3 p.m. and check-out is noon.

If you need transportation from the airport, you can call Executive Transportation (800-
990-8841) in advance of your arrival. The cost is $14 one way.

I have attached maps of the airport and downtown Cincinnati. Please let me know if you
have any questions.

Sincerely,

Barbara Bogenrief
Secretary to the Vice President

Exhibit B

Interchange Standard and Business Practices Meeting

Monday, October 27, 2003 — 1 p.m. to 5 p.m.
Tuesday, October 28, 2003 — 8 a.m. to 3 p.m.

The Westin Cincinnati
21 East 5th Street
Cincinnati, OH 45202
Phone: 513-621-7700

Agenda

1.   Administrative   **10 minutes**
    a.   Welcome and Introductions – Chairman
    b.   Antitrust Guidelines – Chairman
    c.   Arrangements – Secretary
    d.   Approval of Agenda – Chairman

2.   Purpose of Meeting – Monroe Landrum   **10 minutes**
    a.   Coordination of reliability and business practices standards
    b.   Policy 3 and E-Tagging
    c.   Meeting deliverables

3.   Introductory Statements – Subcommittee Chairman   **30 minutes**
    a.   Overview of subcommittee actions related to standards
        i)   Roman Carter – Chairman of NAESB CIBPTF
              (1) Coordinate Interchange Business Practices Task Force
        ii)   Doug Hils – Chairman of NERC IS
              (1) Interchange Subcommittee
        iii)   Mike Oatts – Chairman of NERC CISDT
              (1) Coordinate Interchange Standards Drafting Team

4.   Functional Model Version 2 – Jim Byrd   **2 hours**
    a.   Bilateral schedules
    b.   Functions and associated tasks
    c.   Responsible entities
    d.   Certifying organizations

5.   Policy 3 and Associated Appendix – Doug Hils   **20 minutes**
    a.   Transition to reliability standards
    b.   Operating Committee charge to Interchange Subcommittee

    c.   Policy 3 – Reliability standards and business practices
    d.   E-Tagging and the TISWG

6.   CI Standard DT – Mike Oatts   20 minutes
    a.   CI Standard development issues
    b.   Functional Model and the CI Standard
    c.   Tariff issues

7.   CIBPTF Scoping Document – Roman Carter   1 hour
    a.   Coordination of business practices associated with reliability standards
        i)   Ensuring standards do not conflict
        ii)   Synchronizing development of standards
    b.   Review scoping document

8.   Policy 3 Spreadsheet – Andy Rodriquez   remainder of meeting
    a.   E-Tag survey and enhancements
    b.   Map Policy 3 to reliability standards and business practices
    c.   E-Tagging – Define what goes where

Exhibit C

Attendance
Interchange Standard and Business Practices Meeting
October 27 – 28, 2003
Cincinnati, OH

Name		Representing
1.	John Simonelli	ISO-NE
2.	Pulin Shah	Exelon Power Team
3.	Alan Boesch	NPPD
4.	Steve Beuning	Xcel Energy
5.	Matt Rios	BPA
6.	Shirley Buckmier	BPA
7.	Bob Schwermann	SMUD
8.	Bob Sullivan	CAISO
9.	Dave Robitaille	The IMO
10.	Roman Carter	Southern
11.	Andy Rodriquez	PJM
12.	Mike Oatts	Southern
13.	Monroe Landrum	Southern
14.	Doug Hils	Cinergy
15.	Jim Byrd	Oncor
16.	Jim Hartwell	NPCC
17.	Mike Anderson	AEP
18.	Alan Johnson	Mirant
19.	Ray Morella	FirstEnergy
20.	Albert DiCaprio	PJM
21.	Ed Davis	Entergy
22.	Melinda Montgomery	Entergy
23.	Aleks Mitreski	Entergy
24.	James Ray Mangum	Entergy
25.	Kent Shroyer	MISO
26.	Karl Tammar	NYISO
27.	Gordon Scott	NERC

Exhibit D

**NAESB COORDINATE INTERCHANGE BUSINESS PRACTICES TASK FORCE
SCOPING DOCUMENT - DRAFT**

Introduction

The NAESB Coordinate Interchange Business Practices Task Force (CIBPTF) was formed to review the proposed NERC standard entitled, "Coordinate Interchange Transactions" and to recommend whether there is a need for a companion business practice.

Purpose of the NERC Coordinate Interchange Transaction Standard

Whereas a NERC standard drafting team has just begun the process of drafting the standard, the CIBPTF is relying on the Standard Authorization Request (SAR) for insight into this standard. As such, the analysis is preliminary. Based upon the approved SAR, there are two clear purposes for the Coordinate Interchange Transactions standard:
1. Ensure that implementation of Interchange Transactions between Sink and Source Balancing Authorities is coordinated by the Interchange Authority
2. Provide a mechanism for the identification of Interchange Transactions that could be utilized for congestion management and/or the relief of operating limit violations

Actions Required Within the Standard
- Reliability related data pertaining to interchange transactions should be verified by the IA:
  - Megawatt magnitude
  - Ramp start and stop times
  - Duration of Interchange Transaction
  - Existence of mutual agreement between parties to Interchange Transaction
  - Approval of Interchange Transaction by appropriate functional authorities
- Reliability related data pertaining to interchange transaction should be communicated to certain functional authorities:
  - Interchange Authority, Balancing Authority, Reliability Authority, Transmission Service Provider, Purchasing-Selling Entity

Items for a Companion Business Practice Standard
- Documentation of a sales agreement required between parties of an Interchange Transaction
- Method of communicating transaction data pertaining to an Interchange Transaction (including the formatting and timing of Reliability data)
- Business practice for submitting all Interchange Transactions, e.g.:
      - hour ahead including ramp times other than "top of hour"
      - day ahead (-ESA matches Naesb/Nerc timing requirements)
      - intra hour (assuming an acceptable notice is provided, deals from ¼ to top hr)
      - long term
      (The software used will need to query all tariffs for limitations/reg. diff's)
- Communicating approval and implementing the Interchange Transactions
- Communication requirements for revisions and changes by PSE or Generator after approval period (Includes data and timing changes)

- Special rules for handling of interchange transactions in, out and through Markets, Regions, and RTOs
    - -Transmission losses (e.g.:financial market for losses, mw reduction)
- Accomodation of Regional differences
- Interchange Schedule Accounting
- Rules for the Software in "tagging" transactions (such as OATI). Vendors shall be required to meet minimum standards.
- Timeline for approval of Interchange Transaction by appropriate Functional authorities (maybe limit time to IA responses to Reliability functions and not market approvals)
- Procedure for handling Ancillary Services (Is this needed?)

Note that some of these items are contained in appendices to Policy 3 that should be reviewed as well

Other Issues
NERC Policy 3 – Interchange will be deleted when the standard is implemented

- NERC Policy 3 contains both reliability related practices which should be incorporated into NERC standards and Commercial practices which don't directly impact the reliability of the power system that should be incorporated into NAESB business practices. These business practices may not necessarily be companions to the NERC standard.
- A coordinated effort between NERC and NAESB is required to prevent the unintended loss of practices currently contained in Policy 3 and its appendices.
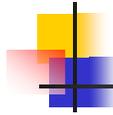
Coordinate Interchange Standards Drafting Status

Cincinnati, OH

Oct. 27-28, 2003

Coordinate Interchange Standard

- Task: To draft the Coordinate Interchange Standard based on the Standards Authorization Request (SAR) Version 4 (May, 2003)

- Initial Drafting Team meeting held in Princeton on August 13-14

- Second face-to-face meeting held on Oct. 1-2 in Philadelphia with goal of initial posting following next meeting on Nov. 4-5 in Chicago

- Drafting Team Members
  - Mike Oatts -Chair (Southern Co.)
  - Ray Morella (First Energy)
  - Ed Davis (Entergy)
  - Al DiCaprio (PJM)
  - Joel Mickey (ERCOT)
  - Joe Willson (PJM) – Compliance rep
  - Alan Bosch (Nebraska Public Power)
  - Shirley Buckmier (BPA)
  - Darrel Richardson (Illinois Power)
  - Dave Robitaille (IMO)
  - Robert Schwermann (SMUD)
  - Karl Tammar (NYISO)

Coordinate Interchange Standard

- SAR provided for 12 required communication activities to take place among various Functional Model roles – Balancing Authority (BA), Interchange Authority (IA), Reliability Authority (RA), Transmission Service Provider (TSP), and Purchasing/Selling Entity (PSE).

- **It is not a re-write of Policy 3.**

- SAR requires PSE to submit, as a minimum, the following reliability related data:
  - MW magnitude
  - Ramp Start and Stop Times
  - Interchange Transaction's Duration
  - Sufficient information for all approval entities

- Drafting Team is required by the process to address all the items in the SAR (or explain why not) and not add requirements
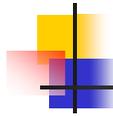
Coordinate Interchange Standard

- Terminology is one of the biggest challenges to the SDT (as it was for the SAR drafting team).

- Due to various usages for the terms *Interchange*, *Transactions* and *Schedules* throughout Policy and other locations, describing the stages in the "life cycle" of interchange was difficult. The following terms are used in the current draft:

  - **Interchange:** Energy transfers that cross balancing authority boundaries.
  - **Arranged Interchange:** The state where the purchasing/selling entity has obtained all necessary approvals to submit the interchange to the interchange authority.
  - **Confirmed Interchange:** The state where the interchange authority has validated approvals and is ready to submit the interchange to the balancing authorities.
  - **Implemented Interchange:** The state where the balancing authority enters the confirmed interchange into its area control error equation.

Coordinate Interchange Standard

"Reliability Period"

| Proposed Interchange | Arranged Interchange | Confirmed Interchange | Implemented Interchange |
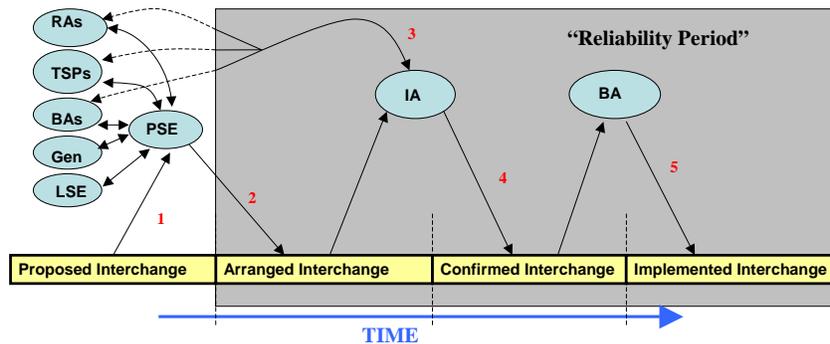
TIME

Data Flow:
1 - PSE receives request for Proposed Interchange
2 - After receiving all required business agreement, PSE communicates Arranged Interchange

3 - IA requests and receives approvals in order to perform required validation
4 - Upon validation, IA creates Confirmed Interchange and communicates
5 – BA's create Implemented Interchange with entry into ACE equations

---

Coordinate Interchange Standard

- The Standard Drafting Team (SDT) has completed a **first draft** that is it reviewing which contains 3 or 4 requirements, measures and compliance (all subject to change).
  Requirements:
  - The balancing authority shall implement confirmed interchange exactly as agreed upon in the interchange confirmation process.
  - The interchange authority shall confirm that arranged interchange transactions are balanced, **valid** and reviewed for reliability prior to transitioning them into confirmed interchange.
  - The reliability authority, balancing authority and transmission service provider shall respond to a request from an interchange authority to transition an arranged interchange to a confirmed interchange.
  - The interchange authority shall communicate whether the arranged interchange has transitioned to a confirmed interchange to all parties involved in the interchange (May become a measure in the second requirement)
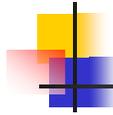
Coordinate Interchange Standard

- The **measures** associated with the current requirements are that the functional model role referenced shall show evidence that it has performed the requirement. Evidence in this case can be in any form (logs, phone recording, etc.) since the standard is silent on the format.

- The **compliance monitoring** is currently a combination of spot check, 3 year audit and "upon complaint" monitoring.

- Data retention (rolling 3 months) and complaint window (within 60 days) are noted in the standard for each requirement along with a performance reset period (12 months).

- In current draft, **level of compliance** is based on a percentage of the successful completion of required, measured activities.
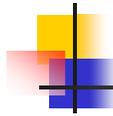
Coordinate Interchange Standard

- A **reference "companion" document** is being drafted which discusses concepts associated with the Standard in order to provide some clarity. Topics include:

  - Timing
  - Dynamic Schedules
  - DC Ties
  - Losses
  - Changes to implemented schedules
  - Transition from policy

- A **comments document** is also being prepared in order to obtain general input as well as specific feedback on specific items discussed by the SDT.

Exhibit F

NERC Policy 3 and Associated Appendix

Interchange Standard and Business Practices Meeting

October 27-28, 2003

Cincinnati, OH

Doug Hils – Interchange Subcommittee

Interchange Subcommittee

Alan Boesch	Nebraska Public Power District
J. Roman Carter	Southern Company Generation
Jason Cox	Dynegy
John Dadourian	PJM Interconnection, LLC
Ronald L. Donahey	Tampa Electric Company
Joe Gardner	Midwest ISO
Douglas E. Hils	Cinergy
Mirek J. Horenovsky	Colorado Springs Utilities
Alan R. Johnson	Mirant Corporation
Frederick J. Kunkel	Wabash Valley Power Association
Jim McIntosh	California ISO
Melinda Montgomery	Entergy Services, Inc.
Michael L. Oatts	Southern Company Services, Inc.
Pierre Paquet	TransEnergie - Hydro Quebec
John Simonelli	ISO New England, Inc.
Charles Yeung	Reliant Resources

WECC ISAS Liaison

Donald P. Lacen	Public Service Co of New Mexico

TISWG Chair

Monroe J. Landrum, Jr.	Southern Company Services, Inc.

1

Transition to Reliability Standards

At the joint session of the standing committees on July 16th, Gerry Cauley explained that the Standards Authorization Committee (SAC) has been concerned that the Operating Committee continues to revise the current operating policies.

The standing committees executive committee met with the SAC on June 30 to work on a plan to transition from the current operating policies and standards to NERC's new reliability standards. Each of the standing committees executive committees will work toward the goals of this transition plan.

At this point, the transition plan sets December 2006 as the date by which all current operating policies and planning standards will be replaced by NERC's new reliability standards. Furthermore, the SAC and the SCEC agreed to form a steering team consisting of the vice chairmen of the following groups:

- standing committees,
- Critical Infrastructure Protection Advisory Group,
- Compliance and Certification Committee,
- Standards Authorization Committee, and
- Regional Managers Committee.

Transition to Reliability Standards

The Operating Committee will continue to manage the current operating policies and revise those policies when necessary.

The Standards Authorization Committee will manage standards authorization requests and the drafting of new reliability standards.

The steering team will draft a formal transition plan to bring to the standing committees and the SAC in November 2003.

The Operating Committee subcommittees need to review existing operating policies and compare those policies to current draft standards authorization requests and draft standards and decide if new Standard Authorization Requests are needed.

NERC will also need help from the North American Energy Standards Board to determine which business practices need priority attention.

At the NERC meeting, John Anderson then moved that the Operating Committee approve the development of the transition plan as recommended by the SAC and SCEC. After discussion, the Operating Committee approved Mr. Anderson's motion.

Transition to Reliability Standards

Chairman Fidrych then asked the Operating Committee's subcommittees to review the current operating policies for which they are responsible, comparing those policies to current standards authorization requests and draft standards, and present their findings to the Operating Committee in November.

Specifically, Chairman Fidrych asked the subcommittees to determine:

1. Which Standard Authorization Requests are needed?
2. Which operating policies could be referred to NAESB as business practices?
3. What reference documents are needed to support the new reliability standards?
4. What other documents would be needed?
5. What portions of existing policies could be retired as new reliability standards are put in place?

Functional Model Implementation and the Interchange Subcommittee

Functional Model Implementation and the Interchange Subcommittee

The Interchange Subcommittee will spend considerable time before and during its December meeting discussing these issues; therefore, the group must have a comprehensive understanding of the model and the issues surrounding the model.

The subcommittee will review the FMRTG's model as presented at the October Interchange Standard and Business Practive meeting.

The Interchange Subcommittee will discuss the current certification documents under development by the FMRTG's Organization Certification Task Force. The Interchange Subcommittee will provide comments on these criteria to ensure that conflicts do not exist between the criteria and implementation structure.

A Transition Team has been identified to transition the industry from Policy and Control Areas to Standards and the Functional Model. The Interchange Subcommittee's tasks are part of that effort.

The Interchange Subcommittee has been charged by the Operating Committee to provide a progress report on the "transition of Policy 3" at the Operating Committee's November 2003 meeting.

Policy 3 – Reliability Standards and Business Practices

The Joint Memorandum of Understanding for the North American Energy Standards Board, North American Electric Reliability Council and the ISO/RTO Council, states:

"Whereas the Parties agree that a coordination process should be developed among the Parties to ensure that the development of business practice and reliability standards is coordinated and harmonized with the development, approval and implementation of ISO and RTO policy and that every practicable effort is made to eliminate overlap and duplication of efforts."

The purpose of this meeting is to begin the coordination process.

E-Tagging and ETag Enhancements

E-Tag – Among other functions, E-Tag for now will continue as mechanism for
- providing data to IDC,
- communication of Interchange Transactions,
- communication of TLR curtailments

The future of E-Tagging?

NERC Policy 3 and Associated Appendix

Interchange Standard and Business Practices Meeting

October 27-28, 2003

Cincinnati, OH

DISCUSSION

Doug Hils – Interchange Subcommittee

Exhibit G

Policy 3 – Interchange
Version 5.2

A.   Interchange Transaction Implementation

[Policy 2A, "Transmission—Transmission Operations"]
[Appendix 3A1, "Tag Submission and Response Timetables"]
[Appendix 3A2, "Tagging Across Interconnection Boundaries]
["E-Tag Spec"]
["Transaction Tagging Process within ERCOT Reference Document"]

Introduction

This section specifies the PURCHASING-SELLING ENTITY'S requirements for tagging all INTERCHANGE TRANSACTIONS, the CONTROL AREAS' and TRANSMISSION PROVIDERS' obligations for accepting the tags, and CONTROL AREAS' obligations for implementing the INTERCHANGE TRANSACTIONS. The tag data is integral for providing the CONTROL AREAS, RELIABILITY COORDINATORS, and other operating entities the information they need to assess, confirm, approve or deny, implement, and curtail INTERCHANGE TRANSACTIONS as necessary to accommodate the marketplace and ensure the operational security of the INTERCONNECTION.

Everything that is in the heading is covered in the subsections below. The requirement to provide the basic information is reliability but the way that information is provided (e-tag etc.) is a business practice.

Requirements

1.   **INTERCHANGE TRANSACTION arrangements.** The PURCHASING-SELLING ENTITY shall arrange for all Transmission Services, tagging, and contact personnel for each INTERCHANGE TRANSACTION to which it is a party.**[PU1]**

 1.1.   **Transmission services**. The PURCHASING-SELLING ENTITY shall arrange the Transmission Services necessary for the receipt, transfer, and delivery of the TRANSACTION.**[PU2]**

 1.2.   **Tagging.** The PURCHASING-SELLING ENTITY serving the load shall be responsible for providing the INTERCHANGE TRANSACTION tag. (Note: 1. Any PSE may provide the tag; however, the load-serving PSE is responsible for ensuring that a single tag is provided. 2. If a PSE is not involved in the TRANSACTION, such as delivery from a jointly owned generator, then the SINK CONTROL AREA is responsible for providing the tag. PSEs must provide tags for all INTERCHANGE TRANSACTIONS in accordance with Requirement 2.)**[PU3]**

 **This section 1.2 was to be changed to Blue via our meeting on the 27th.

1.3. **Contact personnel**. Each PURCHASING-SELLING ENTITY with title to an INTERCHANGE TRANSACTION must have, or arrange to have, personnel directly and immediately available for notification of INTERCHANGE TRANSACTION changes. These personnel shall be available from the time that title to the INTERCHANGE TRANSACTION is acquired until the INTERCHANGE TRANSACTION has been completed.**[PU4]**

This was added as a limitation of the tool. The E-Tag needed someone in place because they were the only one that could provide the change. This will change to green.

1.4. **E-Tag monitoring.** CONTROL AREAS, TRANSMISSION PROVIDERS, and PURCHASING-SELLING ENTITIES who are responsible for a tagged TRANSACTION shall have facilities to receive unsolicited notification from the Tag Authority of changes in the status of a tag with which the user is a participant.**[PU5]**

The IS added this for tagging. If you have a tagging system then it need monitoring because you can be sent data at any time.

2. **INTERCHANGE TRANSACTION tagging.** Each INTERCHANGE TRANSACTION shall be tagged before implementation as required by each INTERCONNECTION as specified in the **"E-Tag Spec"** or **"Transaction Tagging Process within ERCOT Reference Document."** In addition to providing necessary operating information, the INTERCHANGE TRANSACTION tag is the official request from the PURCHASING-SELLING ENTITY to the CONTROL AREAS to implement the INTERCHANGE TRANSACTION. The information that must be provided on the tag is listed in **Appendix 3A4**.

2. Just an introduction for the rest of the document.

2.1. **Application to TRANSACTIONS.** All INTERCHANGE TRANSACTIONS and certain INTERCHANGE SCHEDULES shall be tagged. In addition, intra-CONTROL AREA transfers using Point-to-Point Transmission Service[1] shall be tagged. This includes:

- INTERCHANGE TRANSACTIONS (those that are between CONTROL AREAS).

- TRANSACTIONS that are entirely within a CONTROL AREA.

- DYNAMIC INTERCHANGE SCHEDULES (tagged at the expected average MW profile for each hour). (Note: a change in the hourly energy profile of 25% or more requires a revised tag.)

- INTERCHANGE TRANSACTIONS for bilateral INADVERTENT INTERCHANGE payback (tagged by the SINK CONTROL AREA).

- INTERCHANGE TRANSACTIONS established to replace unexpected generation loss, such as through prearranged reserve sharing agreements or other arrangements, are exempt from tagging for 60 minutes from the time at which the INTERCHANGE TRANSACTION begins (tagged by the SINK CONTROL AREA). **[See also, Policy 1E2 and 2.1, "Disturbance Control Standard"][PU6]**

A. _____

[1] This includes all "grandfathered" and other "non-888" Point-to-Point Transmission Service

A. Interchange Transaction Implementation

*** I show that section 2.1 is changed to Blue.

IF YOU ARE

ANYTIME THERE IS A PHYSICAL TRANSFER BETWEEN BOUNDARIES THE IA MUST BE INFORMED. IN THE FUTURE THIS MAY NOT BE NEEDED. ANYTHING THAT WOULD NEED TO BE TAGGED WOULD BE CONSIDERED RELIABILITY. 2.1 DEFINES WHAT NEEDS TO BE TAGGING. WHAT NEEDS TO BE COORDINATED?

IN CONSTRUCTING AN INTERCHANGE TRANSACTION IF YOU WANT TO REQUEST A TRANSACTION THEN IT GOES TO THE BA AND THE BA SAY YEA OR NAY AND THEN IT GOES BACK TO THE IA. IF YOU HAVE PHYSICAL AND FINANCIAL MARKETS, THE MARKET MUST CLEAR THE TRANSACTIONS, AND THEN THE COORDINATION STARTS WITH THE IAS. THERE ARE PARTS THAT ARE COMMERCIAL AND PARTS THAT ARE RELIABILITY. THIS IS PART OF THE RELIABILITY PROCESS OF TAGGING BILATERAL INTERCHANGE.

AN INTERCHANGE IS NOT HANDED OFF TO THE BA UNTIL IT IS READY TO IMPLEMENT. EVERYTHING THAT IS PRE-PHYSICAL THE FM DOES NOT ADDRESS.

THE BA WILL ONLY IMPLEMENT WHAT IT GETS FROM THE IA.

IF THIS SECTION IS ONLY THE FINAL COMMUNICATIONS BETWEEN THE IA AND BA THEN THIS WOULD BE RELIABILITY.

HERE WE ARE TRYING TO TAKE THE OLD WORLD (POLICY 3) AND DEFINE IT IN THE NEW WORLD (STANDARDS).

IS THIS SECTION ADDRESSING A RELIABILITY ISSUES THAT WILL NEED TO KEEP BEING ADDRESSED. IN TODAY'S WORLD THIS IS RELIABILITY BUT IN TOMORROW'S WORLD WITH IS BUSINESS.

2.2. **Parties to whom the complete tag is provided.** The tag, including all updates and notifications, shall be provided to the following entities:

- Generation Providing Entity

- Generation CONTROL AREA

- TRANSMISSION PROVIDERS

- Transmission Customers

- SCHEDULING ENTITIES

- Intermediate PURCHASING-SELLING ENTITIES (Title-Holders)

- Load CONTROL AREA

- LOAD-SERVING ENTITY

- Market Redispatch Notification Entities (if specified)

- Security Analysis Services

2.3. **Method of transmitting the tag.** The PURCHASING-SELLING ENTITY shall submit the INTERCHANGE TRANSACTION tag in the format established by each INTERCONNECTION. **["E-Tag Spec" or "Transaction Tagging Process within ERCOT Reference Document"]**

   2.3.1. **Tags for INTERCHANGE TRANSACTIONS that cross INTERCONNECTION boundaries.** Procedures are found in **Appendix 3A2, "Tagging Across Interconnection Boundaries."[PU7]**

Potential reliability issue – Not covered in a SAR. IS to discuss at December 2003 meeting.

Green for where Marketers interract with eachother and a red where marketers interract with the IA.

2.4. **INTERCHANGE TRANSACTION submission time.** To provide adequate time for INTERCHANGE SCHEDULE implementation, INTERCHANGE TRANSACTIONS shall be submitted as specified in **Appendix 3A1, "Tag Submission and Response Timetable."[PU8]**

Potential reliability issue – IA needs to provide data to the BA is a certain time period.

   2.4.1. **Exception for security reasons**. Exception to the submission time requirements in Section 2.4 is allowed if immediate changes[PU9] to the INTERCHANGE TRANSACTIONS are required to mitigate an OPERATING SECURITY LIMIT violation. The tag may be submitted after the emergency TRANSACTION has been implemented but no later than 60 minutes.[PU10]

Need to be looked at for reliability. Agenda item for December meeting.

2.5. **Confirmation of tag receipt.** Confirmation of tag receipt shall be provided to the PURCHASING-SELLING ENTITY who submitted the tag in accordance with INTERCONNECTION tagging practices. **["E-Tag Spec"][PU11]**

**I understood this to be changed to Blue for sections 2.5 and 2.6

Confirmation to the IA from the BA. IS should discuss as a reliability item. Agenda item for Dec. meeting.

2.6. **Tag acceptance.** An INTERCHANGE TRANSACTION tag shall be accepted if all required information is valid and provided in accordance with the tagging specifications in Requirement 2.[PU12]

A. Interchange Transaction Implementation

How marketers communicate with market operators and how a marketer "writes" up a transaction. These are business practices that support reliablity.

Instead of calling items reliability and business practices we may want to call items reliability and non-reliability.

Break out the responsibilities in the current Policy 3 and come to some agreement, in general, with which group the standards and business practices belong, and then both groups should work on the policy and then meet again. Then, decide if we are missing anything. Define what is reliability and then decide if another SAR/Standard needed to cover Policy 3.

What are the major reliability issues and are they handled by a standard. If not, does it need to be?

3.   INTERCHANGE TRANSACTION tag receipt verification. The SINK CONTROL AREA shall verify the receipt of each INTERCHANGE TRANSACTION tag with the TRANSMISSION PROVIDERS, and CONTROL AREAS on the SCHEDULING PATH before the INTERCHANGE TRANSACTION is implemented. **[PU13]**

THIS WOULD BE A MEASURE AND NOT A STANDARD. THE STANDARD WOULD STATE THAT THE BAS ARE IMPLEMENTING THE INTERCHANGE. HAS A RELIABILITY IMPACT THAT NEEDS TO BE CONSIDERED. AGENDA ITEM FOR DECEMBER MEETING.

4.   INTERCHANGE TRANSACTION assessment. GENERATION PROVIDING ENTITIES, LOAD SERVING ENTITIES, TRANSMISSION PROVIDERS, CONTROL AREAS on the SCHEDULING PATH, and other operating entities responsible for operational security shall be responsible for assessing and "approving" or "denying" INTERCHANGE TRANSACTIONS as requested by PURCHASING-SELLING ENTITIES, based on established reliability criteria and adequacy of INTERCONNECTED OPERATIONS SERVICES and transmission rights as well as the reasonableness of the INTERCHANGE TRANSACTION tag. GENERATION PROVIDING ENTITIES and LOAD SERVING ENTITIES may elect to defer their approval responsibility to their HOST CONTROL AREA. This assessment shall include the following:**[PU14]**

> **NERC expects that Approval Entities have the proper resources to perform these assessments. Lack of these tools is not a reason to deny an Interchange Transaction. Resources include personnel and tools.**

The CONTROL AREA assesses:

- TRANSACTION start and end time
- ENERGY PROFILE (ABILITY OF GENERATION MANEUVERABILITY TO ACCOMMODATE)
- SCHEDULING PATH (proper connectivity of ADJACENT CONTROL AREAS)

The TRANSMISSION PROVIDER assesses:

- Valid OASIS reservation number or transmission contract identifier
- Proper transmission priority
- Energy profile accommodation (does energy profile fit OASIS reservation?)

- OASIS reservation accommodation of all INTERCHANGE TRANSACTIONS
- Loss accounting

**I show that section 4.0 was to be Blue

The GENERATION PROVIDING ENTITY and LOAD-SERVING ENTITY assess:

- Transaction is valid representation of contractually agreed upon energy delivery

4.1. **Tag corrections**. During the CONTROL AREAS' and TRANSMISSION PROVIDERS' assessment time, the PURCHASING-SELLING ENTITY who submitted the tag may elect to submit a tag correction. Tag corrections are changes to an existing tag that do not affect the reliability impacts of the INTERCHANGE TRANSACTION; therefore, tag corrections do not require the complete re-assessment of the tag by all CONTROL AREAS and TRANSMISSION PROVIDERS on the SCHEDULING PATH, or the completion and submission of a new tag by the PURCHASING-SELLING ENTITY. The SINK CONTROL AREA shall notify all CONTROL AREAS and TRANSMISSION PROVIDERS on the SCHEDULING PATH of the correction, and specifically alert those entities for which a correction has impact. Entities who are impacted by the correction will have an opportunity to reevaluate the tag status. The timing requirements for corrections are found in **Appendix 3A1, "Tag Submission and Response Timetable**." Tag items that may be corrected are found in **Appendix 3A4, "Required Tag Data."** A description of those entities who may correct an INTERCHANGE TRANSACTION tag is found in **Appendix 3D, "Transaction Tag Actions." [See Appendix 3A1 Subsection C, Interchange Transaction Corrections.]**[PU15]

5. **INTERCHANGE TRANSACTION approval or denial.** Each CONTROL AREA or TRANSMISSION PROVIDER on the SCHEDULING PATH responsible for assessing and "approving" or "denying" the INTERCHANGE TRANSACTION shall notify the SINK CONTROL AREA. The SINK CONTROL AREA in turn notifies the PURCHASING-SELLING ENTITY who submitted the INTERCHANGE TRANSACTION tag, plus all other CONTROL AREAS and TRANSMISSION PROVIDERS on the SCHEDULING PATH. Assessment timing requirements are found in **Appendix 3A1, "Tag Submission and Response Timetable."** A description of those entities who may approve or deny an INTERCHANGE TRANSACTION is found in **Appendix 3D, "Transaction Tag Actions."**[PU16]

HAS A RELIABILITY IMPACT THAT NEEDS TO BE CONSIDERED BY THE IS. AGENDA ITEMS FOR DECEMBER MEETING.

5.1. **INTERCHANGE TRANSACTION denial.** If denied, this notification shall include the reason for the denial.[PU17]

AGREED TO LEAVE GREEN.

    5.2.   **INTERCHANGE TRANSACTION approval.** The INTERCHANGE TRANSACTION is considered approved if the PURCHASING-SELLING ENTITY who submitted the INTERCHANGE TRANSACTION tag has received confirmation of tag receipt and has not been notified that the transaction is denied.**[PU18]**

RELIABILITY

6.   **Responsibility for INTERCHANGE TRANSACTION implementation.** The SINK CONTROL AREA is responsible for initiating the implementation of each INTERCHANGE TRANSACTION as tagged in accordance with Policy 3.A. Requirement 2 (and its subparts). The INTERCHANGE TRANSACTION is incorporated into the INTERCHANGE SCHEDULE(S) of all CONTROL AREAS on the SCHEDULING PATH in accordance with Policy 3B.

Change 6 to Blue/Other - May not be LCA.

    6.1.   **Tag requirements for INTERCHANGE TRANSACTION implementation.** The CONTROL AREA shall implement only those INTERCHANGE TRANSACTIONS that:

- Have been tagged in accordance with Requirement 2 above, or,
- Are exempt from tagging in accordance with Requirement 2.1 above.**[PU19]**

7.   **Tag requirements after curtailment has ended.** After the curtailment of a TRANSACTION has ended, the INTERCHANGE TRANSACTION'S energy profile will return to the originally requested level unless otherwise specified by the PURCHASING-SELLING ENTITY. [See **Interchange Transaction Reallocation During TLR Levels 3a and 5a Reference Document, Version 1 Draft 6.**]**[PU20]**

This is just dealing with a reload at the end of the curtailment.

Confidentiality of information. RELIABILITY COORDINATORS, CONTROL AREAS, TRANSMISSION PROVIDERS, PURCHASING-SELLING ENTITIES, and entities serving as tag agents or service providers as provided in the "**E-Tag Spec"** shall not disclose INTERCHANGE TRANSACTION information to any PURCHASING-SELLING ENTITY except as provided for in Requirement 2.2 above, "**Parties to whom the complete tag is provided.**"**[PU21]**

~~3.~~Change this to green.

B. Interchange Schedule Implementation

[Policy 2A, "Transmission—Transmission Operations"]

1.
Introduction

This section explains CONTROL AREA requirements for implementing the INTERCHANGE SCHEDULES that result from the INTERCHANGE TRANSACTIONS tagged by the PURCHASING-SELLING ENTITIES in Section A.

Requirements

1. **CONTROL AREAS must be adjacent.** INTERCHANGE SCHEDULES shall only be implemented between ADJACENT CONTROL AREAS.

Not relevant.

2. **[PU22]Sharing INTERCHANGE SCHEDULES details**. The SENDING CONTROL AREA and RECEIVING CONTROL AREA must provide the details of their INTERCHANGE SCHEDULES via the Interregional Security Network as specified in Policy 4.B.**[PU23]**

3. **Providing tags for approved TRANSACTIONS to the RELIABILITY COORDINATOR.** The SINK CONTROL AREA shall provide its RELIABILITY COORDINATOR the information from the INTERCHANGE TRANSACTION tag electronically for each Approved INTERCHANGE TRANSACTION.**[PU24]**

4. **INTERCHANGE SCHEDULE confirmation and implementation.** The RECEIVING CONTROL AREA is responsible for initiating the confirmation and implementation of the INTERCHANGE SCHEDULE with the SENDING CONTROL AREA.

    4.1. **INTERCHANGE SCHEDULE agreement**. The SENDING CONTROL AREA and RECEIVING CONTROL AREA shall agree with each other on the:

    - INTERCHANGE SCHEDULE start and end time

    - Ramp start time and rate

    - Energy profile

    This agreement shall be made before either the SENDING CONTROL AREA or RECEIVING CONTROL AREA makes any generation changes to implement the INTERCHANGE SCHEDULE.**[PU25]**

    4.1.1. **INTERCHANGE SCHEDULE standards.** The SENDING CONTROL AREA and RECEIVING CONTROL AREA shall comply with the INTERCHANGE SCHEDULE Standards in **Policy 3C, "Interchange – Schedule Standards."**

    4.1.2. **Operating reliability criteria**. CONTROL AREAS shall operate such that INTERCHANGE SCHEDULES or schedule changes do not knowingly cause any other systems to violate established operating reliability criteria.**[PU26]**

B. Interchange Schedule Implementation

4.1.3. DC tie operator. SENDING CONTROL AREAS and RECEIVING CONTROL AREAS shall coordinate with any DC tie operators on the SCHEDULING PATH.**[PU27]**

5. Maximum scheduled interchange. The maximum NET INTERCHANGE SCHEDULE between two CONTROL AREAS shall not exceed the lesser of the following:

5.1. Total capacity of facilities. The total capacity of both the owned and arranged-for transmission facilities in service between the two CONTROL AREAS, or

5.2. Total Transfer Capability. The established network Total Transfer Capability (TTC) between the CONTROL AREAS, which considers other transmission facilities available to them under specific arrangements, and the overall physical constraints of the transmission network. Total Transfer Capability is defined in *Available Transfer Capability Definitions and Determination,* NERC, June 1996.**[PU28]**

2.

C. Interchange Schedule Standards

Standards

1. **INTERCHANGE SCHEDULE start and end time.** INTERCHANGE SCHEDULES shall begin and end at a time agreed to by the SOURCE CONTROL AREA, SINK CONTROL AREA, and the INTERMEDIARY CONTROL AREAS.

2. **Ramp start times.** CONTROL AREAS shall ramp the INTERCHANGE equally across the start and end times of the schedule.

3. **Ramp duration.** CONTROL AREAS shall use the ramp duration established by their INTERCONNECTION as follows unless they agree otherwise:**[PU29]**

**I show this to be changed to Blue for sections 1,2,3 above.

   3.1. **INTERCHANGE SCHEDULES within the Eastern and ERCOT INTERCONNECTIONS.** ten-minute ramp duration.

   3.2. **INTERCHANGE SCHEDULES within the Western INTERCONNECTION.** 20-minute ramp duration.

   3.3. **INTERCHANGE SCHEDULES that cross an INTERCONNECTION boundary.** The CONTROL AREAS that implement INTERCHANGE SCHEDULES that cross an INTERCONNECTION boundary must use the same start time and ramp durations.

   3.4. **[PU30]Exceptions for Compliance with Disturbance Control Standard and Line Load Relief.** Ramp durations for INTERCHANGE SCHEDULES implemented for compliance with NERC's Disturbance Control Standard (recovery from a disturbance condition) and INTERCHANGE TRANSACTION curtailment in response to line loading relief procedures may be shorter, but must be identical for the SENDING CONTROL AREA and RECEIVING CONTROL AREA **[See also Policy1E2, "Generation Control Performance – Performance Standard."][PU31]**

Reliability and addressed in a current SAR where you must agree.

4. **INTERCHANGE SCHEDULE accounting.** Block accounting shall be used. **[PU32]**

D.   Interchange Transaction Modifications

Introduction

This section specifies PURCHASING-SELLING ENTITY's, TRANSMISSION PROVIDER'S and CONTROL AREA's rights and requirements for modifying an INTERCHANGE TRANSACTION tag after it has been approved and implemented as described in the preceding sections.

Terms

SCHEDULING ENTITY – an entity responsible for approving and implementing INTERCHANGE SCHEDULES. SCHEDULING ENTITY refers to a CONTROL AREA or a third party authorized by NERC for this function, such as a Scheduling Agent.

Requirements

1.   **INTERCHANGE TRANSACTION modification for market-related issues.** The PURCHASING-SELLING ENTITY that submitted an INTERCHANGE TRANSACTION tag may modify an INTERCHANGE TRANSACTION tag that is in progress or scheduled to be started**.** These modifications may be made due to changes in contracts, economic decisions, or other market-based influences. In cases where a market operator is serving as the source or sink for a TRANSACTION, then they shall have the right to effect changes to the energy flow as well (based on the results of the market clearing).

   1.1.   **Increases.** The INTERCHANGE TRANSACTION tag's energy and/or committed transmission reservation(s) profile may be increased to reflect a desire to flow more energy or commit more transmission than originally requested. Necessary transmission must be either available from the earlier TRANSACTION or provided with the increase.

   1.2.   **Extensions.** The INTERCHANGE TRANSACTION tag's energy profile may be extended to reflect a desire to flow energy during hours not previously specified. Necessary transmission capacity must be provided with the extension.

   1.3.   **Reductions.** The INTERCHANGE TRANSACTION tag's energy and/or committed transmission reservation(s) profile may be reduced to reflect a desire to flow less energy or commit less transmission than originally requested. Reductions are used to indicate cancellations and terminations, as well as partial decreases.

   1.4.   **Combinations of 1.1, 1.2, and 1.3 may be submitted concurrently.**

   1.5.   **Coordination responsibilities of the PURCHASING-SELLING ENTITY.** The modification must be provided by the PURCHASING-SELLING ENTITY to the following INTERCHANGE TRANSACTION participants:**[PU33]**

   - GENERATION PROVIDING ENTITY
   - Generation CONTROL AREA
   - TRANSMISSION PROVIDERS
   - TRANSMISSION CUSTOMERS
   - SCHEDULING ENTITIES
   - Intermediate PURCHASING-SELLING ENTITIES

> **FERC Orders 888, 889, 638, and a provider's OATT guide transmission requests. Tagging policy shall not supersede OASIS requirements.**

(Title-Holders)

- Load CONTROL AREA

- LOAD-SERVING ENTITY

- Market Redispatch Notification Entities (if specified)

- Security Analysis Services

1.6 ~~1.6~~INTERCHANGE TRANSACTION **modification and evaluation time.** To provide adequate time for INTERCHANGE SCHEDULE implementation, INTERCHANGE TRANSACTION modifications shall be requested and evaluated as specified in Section D of **Appendix 3A1, "Tag Submission and Evaluation Timetable."** **[PU34]**

THIS WILL PROBABLY BE DEFINED IN TARIFFS.

THERE IS A PRACTICAL ISSUE HERE THAT THE IS SHOULD ADDRESS. WHEN THE BA IS TOLD THE SCHEDULE IS A GO. "THIS MAY BE A RELIABILITY BUSINESS PRACTICE." THE BA COULD BE SET UP TO FAIL. AL DICAPRIO – THIS IS NOT A RELIABILITY ISSUE.

2. **INTERCHANGE TRANSACTION modification for reliability-related issues.** A RELIABILITY AUTHORITY, TRANSMISSION PROVIDER, SCHEDULING ENTITY, GENERATION CONTROL AREA, or LOAD CONTROL AREA may modify an INTERCHANGE TRANSACTION tag that is in progress or scheduled to be started. These modifications may be made *only* due to TLR events (or other regional congestion management practices), Loss of Generation, or Loss of Load.**[PU35]**

2.1. **Assignment of coordination responsibilities during TLR events.** At such times when TLR is required to ensure reliable operation of the electrical system, and the TLR requires holding or curtailing INTERCHANGE TRANSACTIONS, the LOAD CONTROL AREA is responsible for coordinating the modifications to the appropriate INTERCHANGE TRANSACTION tags. See **Policy 9, Appendix 9C1 "Transmission Loading Relief Procedure – Eastern Interconnection."**

2.1.1. **Reductions**. When a RELIABILITY COORDINATOR must curtail or hold an INTERCHANGE TRANSACTION to respect TRANSMISSION SERVICE reservation priorities or to mitigate potential or actual OPERATING SECURITY LIMIT violations, the RELIABILITY COORDINATOR shall inform the LOAD CONTROL AREA listed on the INTERCHANGE TRANSACTION tag of the greatest reliable level at which the affected INTERCHANGE TRANSACTION may flow.

2.1.2. **Reloads.** At such time as the TLR event allows for the reloading of the transaction, the RELIABILITY COORDINATOR shall inform the LOAD CONTROL AREA listed on the INTERCHANGE TRANSACTION tag of the releasing of the INTERCHANGE TRANSACTION'S limit.**[PU36]**

2.2. **Coordination when implementing other congestion management procedures**. As a part of some local and regional congestion management and transmission line overload procedures, the TRANSMISSION PROVIDER or SCHEDULING ENTITY is responsible for implementing curtailment of INTERCHANGE TRANSACTIONS. The TRANSMISSION PROVIDER or affected SCHEDULING ENTITY may adjust the INTERCHANGE TRANSACTION tags as required to implement those local and regional congestion management or

transmission overload relief procedures that have been approved by the Region(s) or NERC.

2.2.1. **Reductions.** When a TRANSMISSION PROVIDER or SCHEDULING ENTITY experiences the need to invoke a congestion management or transmission line overload procedure, it may use the curtailment feature of E-Tag to inform the GENERATION CONTROL AREA and the LOAD CONTROL AREA listed on the INTERCHANGE TRANSACTION tag of the greatest reliability limit at which the affected INTERCHANGE TRANSACTION may flow.

2.2.2. **Reloads.** At such time as the need for the congestion management or transmission line overload relief procedure allows for the full or partial reloading of the transaction, the TRANSMISSION PROVIDER or SCHEDULING ENTITY may use the reload feature of E-Tag to inform the GENERATION CONTROL AREA and the LOAD CONTROL AREA listed on the INTERCHANGE TRANSACTION tag that the INTERCHANGE TRANSACTION'S reliability limit has changed.**[PU37]**

2.3. **Assignment of coordination responsibilities during a loss of generation.** At such times when a loss of generation necessitates curtailing INTERCHANGE TRANSACTIONS, the Generation CONTROL AREA is responsible for coordinating the modifications to the appropriate INTERCHANGE TRANSACTION tags.

2.3.1. **Reductions.** When a generation operator experiences a full or partial loss of generation, it shall notify the HOST CONTROL AREA (the GENERATION CONTROL AREA for the INTERCHANGE TRANSACTION). The HOST CONTROL AREA contacts the GENERATION PROVIDING ENTITY that is responsible for the generation. The GENERATION PROVIDING ENTITY determines what schedule modifications need to be made and may request those modifications as market-based reductions, increases, or extensions (either via the tag author, or directly if the entity is the tag author or a market operator). If the GENERATION PROVIDING ENTITY does not resolve the condition, the HOST CONTROL AREA may at its discretion curtail INTERCHANGE TRANSACTIONS associated with the generation.

2.3.2. **Reloads.** Upon return of the generation, the generator operator shall notify the HOST CONTROL AREA (the GENERATION CONTROL AREA for the INTERCHANGE TRANSACTION). The HOST CONTROL AREA contacts the GENERATION PROVIDING ENTITY that is responsible for the generation. The GENERATION PROVIDING ENTITY determines what schedule modifications need to be made and may request those modifications as market-based reductions, increases, or extensions (either via the tag author, or directly if the entity is the tag author or a market operator). The HOST CONTROL AREA must release the limits previously imposed on INTERCHANGE TRANSACTIONS associated with the generation (but not override any market-based reductions).**[PU38]**

2.4. **Assignment of coordination responsibilities during a loss of load.** At such times when a loss of load necessitates curtailing INTERCHANGE TRANSACTIONS, the LOAD CONTROL AREA is responsible for coordinating the modifications to the appropriate INTERCHANGE TRANSACTION tags.

2.4.1. **Reductions.** When a LOAD-SERVING ENTITY experiences a loss of load, it shall notify its HOST CONTROL AREA (the LOAD CONTROL AREA for the

INTERCHANGE TRANSACTION) and determine what schedule modifications need to be made. The LOAD-SERVING ENTITY may request those modifications as market-based reductions, increases, or extensions (either via the tag author, or directly if the entity is the tag author or a market operator). If the LOAD-SERVING ENTITY does not notify the HOST CONTROL AREA, the HOST CONTROL AREA may at its discretion curtail INTERCHANGE TRANSACTIONS associated with the load.

2.4.2.   Reloads. Upon return of the load, THE LOAD-SERVING ENTITY shall notify its HOST CONTROL AREA (the LOAD CONTROL AREA for the INTERCHANGE TRANSACTION) and determine what schedule modifications need to be made. The LOAD-SERVING ENTITY may request those modifications as market-based reductions, increases, or extensions (either via the tag author, or directly if the entity is the tag author or a market operator). If the LOAD-SERVING ENTITY does not notify the HOST CONTROL AREA, the HOST CONTROL AREA must release the limits previously imposed on INTERCHANGE TRANSACTIONS associated with the load (but not override any market-based reductions).**[PU39]**

2.5.   Coordination responsibilities for reliability-related issues. The modification must be provided by the requesting CONTROL AREA, TRANSMISSION PROVIDER, or SCHEDULING ENTITY to the following INTERCHANGE TRANSACTION participants:

The portion of TLR, where you cannot find a commercial solution, then, you fall back to TLR. Al DiCaprio noted that a marketer may want to say that I would prefer that you cut load but do not tell me how. There is an obligation to solve the problem.

This must be discussed further with the Interchange Subcommittee – December agenda item.

- Generation Providing Entity
- Generation CONTROL AREA
- TRANSMISSION PROVIDERS
- Transmission Customers
- SCHEDULING ENTITIES
- Intermediate PURCHASING-SELLING ENTITIES (Title-holders)
- Load CONTROL AREA
- LOAD-SERVING ENTITY
- Market Redispatch Notification Entities (if specified)
- Security Analysis Services**[PU40]**

2.6.   INTERCHANGE TRANSACTION modification and evaluation time. To provide adequate time for INTERCHANGE SCHEDULE implementation, INTERCHANGE TRANSACTION modifications shall be requested and evaluated as specified in **Appendix 3A1, "Tag Submission and Evaluation Timetable[PU41]**

ALL GREEN – TIE LINES AGAIN.

[PU1]Deal arrangements. Note the transmission service review by the TSP should be considered a reliability/tariff function but it is out of scope for this Policy

[PU2]Deal arrangements Transmission service review by the TSP should be considered a reliability/tariff function but it is out of scope for this Policy

[PU3]Providing the tag is equivalent to providing the information to IDC.

[PU4]Having the BA available for changes is the reliability function. I am not sure why this was put into Policy 3

[PU5]The tag authority is not in the functional model

[PU6]The BA should only implement the transactions it receives from the IA

[PU7]This is a how to

[PU8]If the tag is not submitted in time the deal does not happen

[PU9]Immediate implementation of interchange changes for a OSL.(note not in Policy 3 now)

[PU10]This looks a lot like a reliability item however if there are not any timing requirements in the reliability standards then this would not fit. The reliability response would be the immediate implementation of interchange changes required because of a OSL.

[PU11]Market Practice

[PU12]Is refusal to accept a tag a market issue? It is not a reliability issue

[PU13]This IA will do this

[PU14]Part of the assessment is reliability related and part is market related

[PU15]PSE adjust is a market function

[PU16]This whole section looks a lot like the function of the IA

[PU17]Marketing function

[PU18]This statement is probably not applicable in the functional model. The IA verifies approval prior to implementation of interchange

[PU19]The BA's net interchange schedule shall match the schedule provided by the IA

[PU20]Market requirement

[PU21]Is this a Tariff issue?

[PU22]This is not required in the functional model

[PU23]This is confirmed by the RA in the approval of interchange

[PU24]IA confirms that the RA has approved the interchange

[PU25]Interchange schedule shall match the schedule provided by the IA. The BA only coordinates with the IA in the functional model so this requirement will go away

[PU26]This RA does this and it is verified by the IA

[PU27]Sounds like something the IA would do

[PU28]This is the responsibility of the TSP

[PU29]The IA is responsible to verify this is sent to the BA's. The ramp durations time is not a reliability issue as long as the BA's can meet the ramp time.

[PU30]The IA is responsible to verify this is sent to the BA's. The ramp durations time is not a reliability issue as long as the BA's can meet the ramp time.

[PU31]There is no specific requirement so this becomes a questionable reliability requirement

[PU32]Market Issue

[PU33]The majority of this step is market related getting the information to the BA TSP and RA is a step that the IA verifies

[PU34]This is redundant to earlier timing requirements but this applies to changes

[PU35]This is a reliability requirement

[PU36]The IA is responsible for the coordination of these actions

[PU37]The IA is responsible for the coordination of these actions

[PU38]The IA is responsible for the coordination of these actions

[PU39]The IA is responsible for the coordination of these actions

[PU40]The IA is responsible for the coordination of these actions

[PU41]Redundant to earlier requirement

Exhibit H

NERC Reliability Functional Model

Interchange Standards and Business
Practices meeting
October 27, 2003

Topics

- Functional Model
  - Purpose
  - Guiding principles
  - One of NERC's "enabling" documents
- Bilateral transactions

2

1

What do we do now?

- The Control Area is no longer the basic operating organization
- NERC Operating Policies do not reflect the new organizations or merchant functions that are forming
- Need to define the basic functions and "roll up" into organizations

  - ISOs
  - RTOs
  - ITCs

  - Reliability
  - Balancing
  - Interchange
  - Transmission

3

The Control Area

Transmission Reliability		Load-Resource Balance
Interchange		Transmission Service
	Buy and Sell		Own
	Implement		Operate
			Wheel
Generation		Supply Load

4

The Functional Model

Development

1. **List** every operating task we could think of

2. **Group** into Functions

3. **Assign** to Entities
   - Invent new entities as needed
   - Set up relationships

PSE

RA

IA

TSP
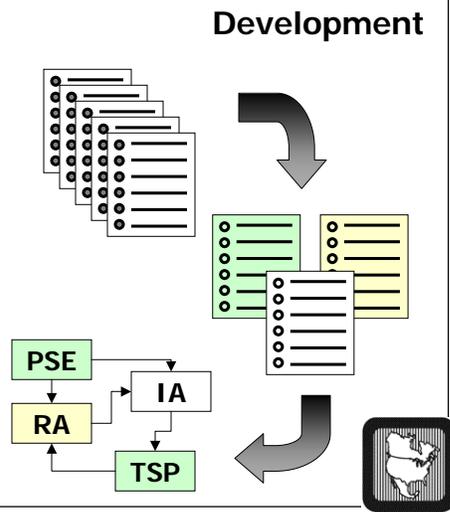
5

Function Relationships

Other Reliability Authorities

Reliability Authority

NERC

NERC Region Compliance Monitors

Balancing Authority

Interchange Authority

Purchasing Selling Entity

Transmission Service Provider

Transmission Owner

Transmission Operator

Generation*

Merchant

Customer Aggregators

Distribution Providers

Load Affiliated Generation and/or Pool

* May Act As Its Own Purchasing Selling Entity

Load Serving Entity*

Timeframes

Functional Model

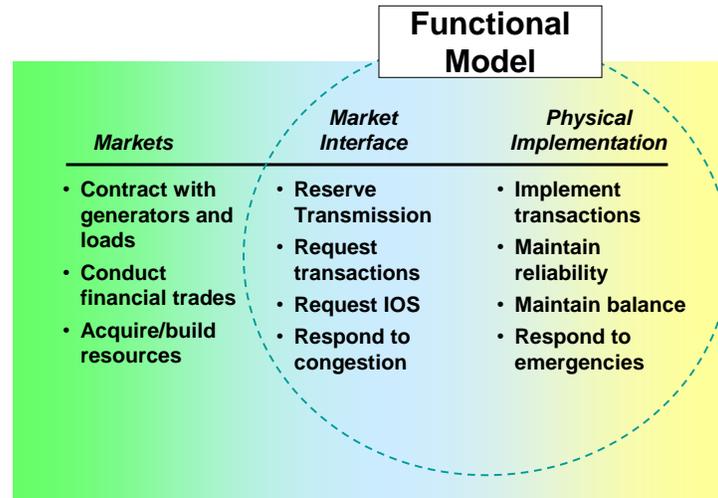| Markets	Market Interface	Physical Implementation
• Contract with generators and loads • Conduct financial trades • Acquire/build resources	• Reserve Transmission • Request transactions • Request IOS • Respond to congestion	• Implement transactions • Maintain reliability • Maintain balance • Respond to emergencies

7

Purpose

1. Functionalize the tasks
2. Define
   - Functions
   - Responsible entity relationships
3. Provide a framework for Reliability Standards
4. Provide links to other models
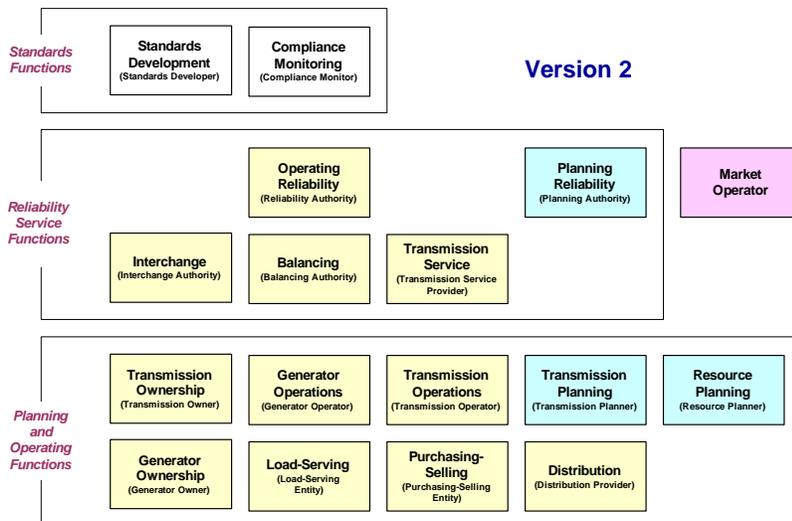   - E.g., business practices, use cases, etc.

8

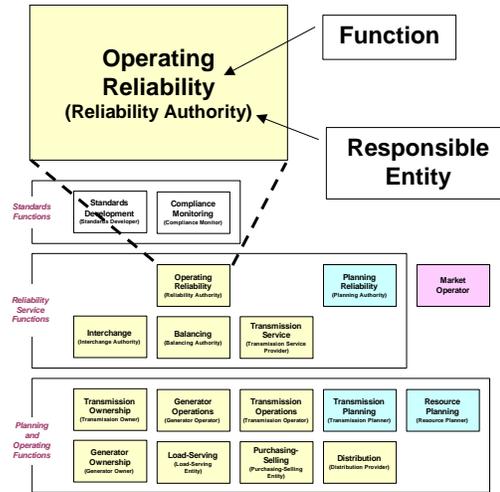┌─── NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL ───┐

Guiding Principles

- Model defines functions as sets of tasks
- Organizations register as responsible entities
- Organizations must be certified to perform certain functions
  - Operating Reliability, Balancing, Transmission Operations, Interchange
- May delegate tasks but not responsibilities
- Some tasks will not result in standards

9

┌─── NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL ───┐

Functional Model

Standards Functions	Standards Development (Standards Developer) / Compliance Monitoring (Compliance Monitor)	**Version 2**

Reliability Service Functions	Operating Reliability (Reliability Authority)	Planning Reliability (Planning Authority)	Market Operator
	Interchange (Interchange Authority) / Balancing (Balancing Authority) / Transmission Service (Transmission Service Provider)		

Planning and Operating Functions	Transmission Ownership (Transmission Owner)	Generator Operations (Generator Operator)	Transmission Operations (Transmission Operator)	Transmission Planning (Transmission Planner)	Resource Planning (Resource Planner)
	Generator Ownership (Generator Owner)	Load-Serving (Load-Serving Entity)	Purchasing-Selling (Purchasing-Selling Entity)	Distribution (Distribution Provider)	

10

5

Naming convention

11

Bilateral Transactions

Physical Implementation and Real-time Management

Balancing Function

- Calculate ACE
- Review gen plan
- Develop ops plan
- Approve transactions
  - Ramping
- Implement schedules
  - Enter into EMS

- Provide freq control
- Monitor CPS and DCS
- Account for energy
  - And Inadvertent
- Implement emergency procedures

13

Interchange Function

- Determine valid, balanced schedules
  - Source, sink, transmission, IOS
- Verify ramping
- Collect and disseminate approvals, changes, denials
- Authorize transaction implementation
- Enter transaction info into transaction management systems (e.g. IDC)
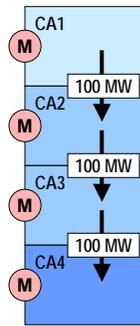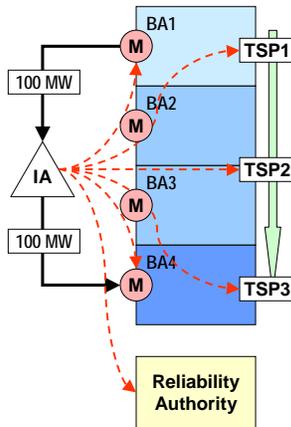- Maintain records

14

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Putting it all Together

Functional Model

Defines **functions** as **tasks**

Defines **responsible entity relationships**

Reliability Standards

Defines satisfactory task **performance**

Defines **ability** to perform tasks

Organization Registration & Certification

Certifies **organizations** as **responsible entities**

Regional Reliability Plans

Designates **which organizations** are **responsible entities**

17

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Putting it all Together

Functional Model

Defines Tasks

NERC Standards Process

Establishes Requirements

Defines Performance

Sets Certification Requirements

Regional Reliability Plan

Assigns Organizations

Registration

Registers Organizations
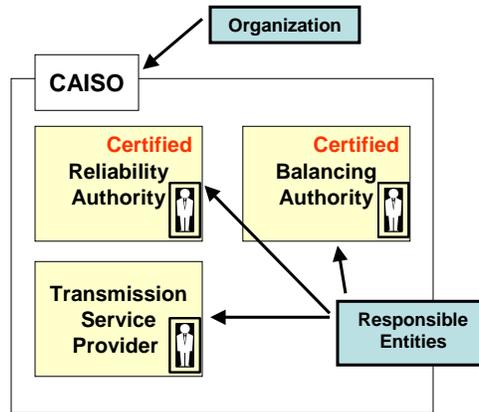
ORG

18

9
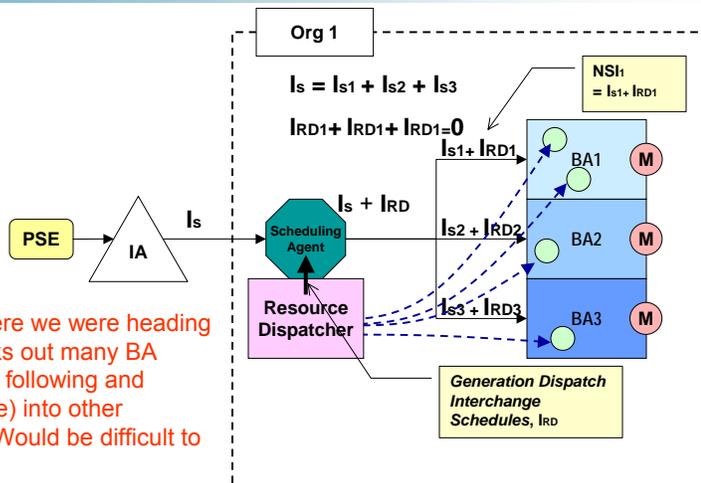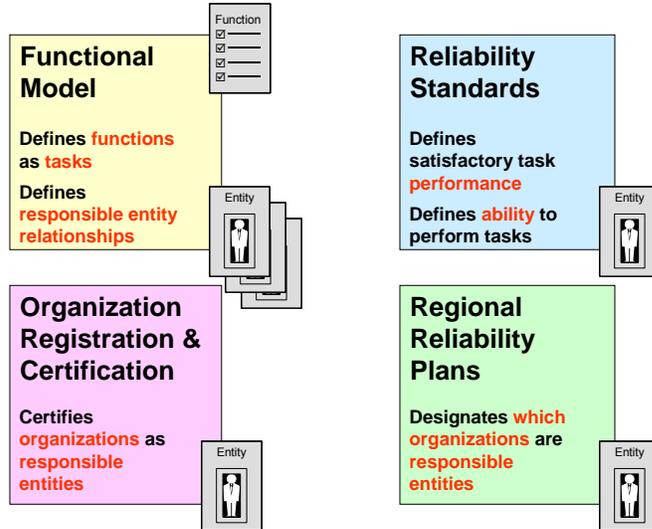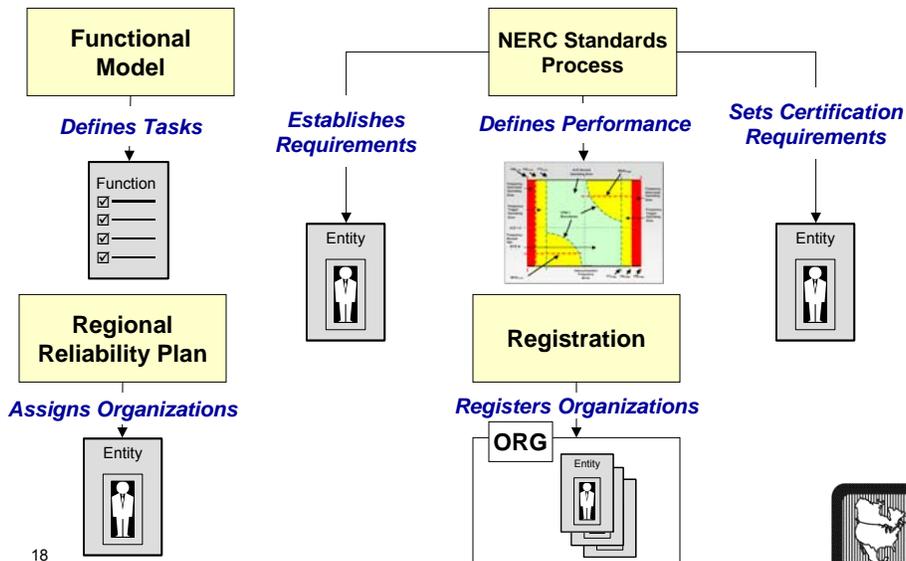
Example

- California ISO is an Organization
- WECC Reliability Plan specifies CAISO as an RA
  - May call it an RC
- It registers with NERC to be an RA, BA, and TSP
- NERC certifies CAISO to be an RA and BA
  - Capable of performing the tasks
- NERC standards read "The RA shall...." and "The BA shall...."

Organization

CAISO

Certified Reliability Authority

Certified Balancing Authority

Transmission Service Provider

Responsible Entities

19

Questions?

?

20

10