NASEB Coordinate Interchange Business Practice Standard (Request for Arranged Interchange, RAI)

Background:

In light of the continuing restructuring of the Electric Industry, and FERC's rulemakings to ensure open and non-discriminatory access to the nation's transmission systems, NERC is developing Reliability Standards to replace current Operating Policies and Procedures. Furthermore, NERC Operating Policies do not reflect the new organizations or merchant functions that are forming.

With regards to Policy 3, NERC currently is developing the Coordinate Interchange Standard to address the reliability issues associated with a bilateral interchange Transaction. The Standard is being developed using the Functional Model as a basis for defining the "Functions" necessary for Bulk Electric ~~Systen~~System reliability rather than the existing NERC Operating Policies for "Control Areas".

Introduction:

A request for the development of a NAESB complementary Business Practice Standard to NERC's Coordinate Interchange Standard was submitted in June, 2003. This Standard was approved by the Joint Interface Committee (JIC) representatives from NERC, NAESB, and RTO/ISO and assigned to NAESB for development.

This Standard is being developed to identify market-supported processes to facilitate fair & "equitable" competitive interchange practices. This standard will provide the necessary data and arrangements to the Interchange Authority and all involved parties of the RAI for an Interchange Transaction to take place between Sink and Source Balancing Authorities (BA). This standard is designed to implement the flow of data and approval mechanisms to facilitate Interchange. It is not intended to be the "Tagging Standard", however, the NAESB ESS is in the process of adopting the current E-tag requirements in various documents now under comment and is aware of the Industry desire to maintain a "Tagging" mechanism (Request for Arranged Interchange) for the dissemination of data. The ESS will be the entity that will go forward with Tagging rules and procedures. The RAI shall contain at a minimum the required market and reliability information from the NAESB RAI Data Sheet (attached). It should be understood this Standard covers the front-end business arrangements and requirements for an Interchange Transaction to be implemented. Upon receiving all approvals from the Approval Entities, the IA will utilize NERC's Coordinate Interchange Standard to transition the Arranged Interchange to a Confirmed Interchange and then the implementation of the Confirmed Interchange.

The Standard is being developed using Functional Model definitions to provide consistency with NERC's Reliability Standards.

Definitions:

Balancing Authority (BA) – The entity which performs the Balancing Function. Some of the duties of the Balancing Function include integrating resource plans ahead of time, maintaining load-interchange-generation balance within a Balancing Authority Area, and supporting Interconnection frequency in real time. In today's operating environment with respect to Interchange, this entity closely resembles a Control Area.

Interchange Authority (IA) – The entity which performs the Interchange Function. Some of the duties of the Interchange Function include authorizing implementation of valid and balanced Interchange schedules between Balancing Authority Areas, and ensuring Interchange Transactions are properly identified for reliability assessment purposes. This entity most resembles today's Tagging Authority.

Interchange Transactions – A transaction representing the delivery of energy from a generator located within a Point of Receipt (POR) BA to a load located within a Point of Delivery (POD) BA.

Point of Resource BA – The Balancing Authority responsible for monitoring and/or controlling the generation identified as the source of an Interchange Transaction.

Point of Delivery BA – The Balancing Authority responsible for monitoring and/or controlling the load identified as the sink of an Interchange Transaction.

Requesting PSE – The PSE submitting the Request for Arranged Interchange (RAI).

Market Period – The period of time when a Requesting PSE is making purchase, sale, and transmission service arrangements needed to support an RAI.

Arranged Interchange – the state where all arrangements necessary to submit the Interchange request to the Interchange Authority have been made.

Confirmed Interchange- The state where the Interchange Authority has verified the Arranged Interchange and is ready to submit it to the Balancing Authorities.

Implemented Interchange- The state where the Balancing Authority enters the Confirmed Interchange into its area control error (ACE) equation.

Approval Entities – Those entities responsible for providing either active or passive approvals to an Arranged Interchange.

Implemented Interchange Block Accounting – Energy accounting that assumes a beginning and ending ramp time of zero minutes. For accounting purposes, this moves

the energy associated with the starting and ending ramps into the adjacent starting and ending clock time of the Interchange.

Market Adjustment – a desired change to an Interchange Transaction after its associated RAI has been submitted to the Interchange Authority.

Reliability Period – The segment of time from when the IA has received the RAI from the requesting PSE to physical implementation.

Request for Arranged Interchange- Process of providing required data as defined in the RAI Data Sheet to the IA and all Approval Entities for the purpose of implementing a bilateral interchange transaction.

You might need a definition for TSP and RA, which are used later in the document, seems right since you have already included the definitions for the BA and IA???

Business Practices

RAI Standard 1.0 All requests to implement an Interchange Transaction shall be accomplished by the submission of a "Request for Arranged Interchange", RAI, (currently NERC Appendix 3A4) to the Interchange Authority (IA) and simultaneously to all involved parties of the RAI. Today this is accomplished by the submission of a "Tag".

Curious, if the PSE has already made all his commercial arrangements with the involved parties during the Market Period, why is he obligated to submit this to them all over again and not just to the IA, the IA is going to contact the involved parties anyway ? Are we headed to "notification overload", how many times can you send someone the same data ?

RAI Standard 1.1 All energy purchase, energy sale, and transmission service arrangements necessary to implement the RAI shall be performed during the Market Period.

RAI Standard 2.0 While any Purchasing Selling Entity (PSE) may act as the "Requesting PSE", it shall be the responsibility of the load-serving Purchasing Selling Entity (PSE), or their designee, to ensure that the RAI has been submitted to the IA.

What do you do in a market system where there are Marketer to Marketer transactions with no specific load-serving entity involved in the transaction ? I'd think in this day and age we should consider decoupling the submission obligation from the load-serving entities.

RAI Standard 3.0 A completed RAI shall contain, at a minimum, the required information specified in the most current version of the NAESB RAI Data Sheet.

I disagree. The information submitted to the IA needs to be determined by the minimum data set that the BA's need to implement the transaction in their ACE. I don't think the markets should determine this. I see the data the IA needs to get the BA's to take the transaction to implemented as a reliability requirement that should be determined by the NERC standard.

Also, how will this handle dynamic schedules ?????

RAI Standard 4.0 On behalf of the Requesting PSE, the IA shall verify approvals from all involved Approval Entities (e.g. TSP-for transmission reservations, BA-for ramping start/end times and rate, RA-reliability analysis, Generator/Load PSE) prior to being confirmed and implemented in accordance with the NERC Coordinate Interchange Standard.

Based on the diagram provided in the e-mail, there is no communication connection between the IA and the Generator/Load PSE during the Reliability Period nor is a link shown in the NERC CI Standard reference document. I do not think the IA should be responsible for that check. Why do you feel it has to be in ?

RAI Standard 4.1 The Requesting PSE shall submit required RAI information and data in accordance with the timing requirements of the most current version of the NAESB RAI Submission and Response Timetable.

RAI Standard 5.0 All requests for approval/validation of the RAI by the IA during the Arranged Interchange Period shall be assessed in accordance with the timing requirements of the most current version of the NAESB RAI Submission and Response Timetable (attached). The results of that assessment shall be promptly communicated back to all involved parties.

OK you never define Arranged Interchange Period. You state the Market Period is for all commercial arrangements and the Reliability Period is when the IA does all necessary checks/approvals. I think based on these definitions this is should really be the Reliability Period otherwise you need another definition.

RAI Standard 5.1 Any denial of a RAI request stated in Standard 5.0 shall be accompanied by communication of the reason for such denial to the requesting PSE.

RAI Standard 6.0 The IA shall be responsible for communicating changes on the status of the RAI to all involved parties of the RAI, including BAs, IAs, RAs, counterparty PSE (Generator or Load Serving), and the TSPs, and the PSEs holding the associated transmission rights necessary to support the transaction.

See previous comments about the need for counter party notification by the IA.

RAI Standard 7.0 The primary method for submitting a RAI to the IA and involved parties of the RAI shall be electronic using protocols to be determined by NAESB. Until another tool is developed, current version of E-tag will be the method of submission.

I strongly disagree with fax and phone. The timing spelled out in Appendix 3A1 is not attainable if you're stuck using fax/phone. I believe this "system" needs to be designed to the nth degree of reliability including a fully functional backup system on hot standby with a redundant mirrored database.

RAI Standard 7.1 Submitting a RAI to the IA via facsimile is acceptable only as a backup when electronic means are not available.

RAI Standard 7.2 Submitting a RAI via telephone is acceptable only if both the internet and fax systems are not operable.

RAI Standard 8.0 The PSE who created the RAI shall be allowed to submit a correction to the RAI during the Arranged, Confirmed, and Implemented Interchange Periods.

OK first you need definitions of these periods because I couldn't find all of them. The only one I see is Market and Reliability Period, where'd these come from ?

Second, I disagree. I think the PSE can only correct information on an RAI when it is in the Arranged or Confirmed state. Once it is implemented and has gone physical, your only two options are a curtailment for reliability or a market adjust, no corrections should be allowed once implemented.

RAI Standard 8.1 Market adjustments made during the Reliability Period by the PSE must be submitted to the IA and all involved parties of the RAI. Timing of the assessment on the adjustments by the Approval Entities shall be in accordance with the NAESB RAI Submission and Response Timetable.

Question, what about market adjusts by someone other than the PSE ? If you look at the SMD markets out there, a PSE has the option of offering price sensitive transactions, e.g., if the price is above the strike price provided, make the transaction happen. In theory the market operator/BA may adjust this transaction every hour based on the economics of their system. I think you really need to consider other entities that should be allowed to issue market adjusts.

RAI Standard 8.1.2 Market Adjustments shall be treated similar to a new RAI and shall be resubmitted to the IA and reviewed by all appropriate Approval Entities before being implemented.

This process might change once you nail down who can do market adjusts.

RAI Standard 8.2 Components of a RAI which can be changed during the Reliability Period include- but are not limited to- MW, ramp start and stop, and duration.

By change I assume you mean correction or market adjust (see comments on the minimum data set the BA's require for ACE) ? Also how will notification be done ? Lets say one RA can't handle the transaction due to new constraints on their system. During the Reliability Period he notifies the IA that he can only do half the MW's, how does the word get out ?

RAI Standard 9.0 Each PSE submitting an RAI for an Interchange Transaction shall have, or arrange to have, personnel on site and immediately available for notification of Interchange Transaction changes.

Just make it a 24 x 7 requirement and be done with it…..you want to play in the interchange market, then staff for it.

RAI Standard 9.1 These personnel shall be available from the beginning of the Market Period until the end of the Implementation Period.

RAI Standard 10.0 Energy accounting for all RAIs shall be accomplished via Implemented Interchange Block Accounting.

Make sure this is flexible enough to handle 15 and 30 minutes interchange scheduling changes, the markets are pushing the industry to get off the old one hour block loading and look for 15 and/or 30 minute block loading.

RAI Standard 11.0 Settlement of losses shall be either financial or shall be handled as payment in-kind. For losses handled as in-kind, the PSE shall communicate to the IA the mw losses and the entity the losses are with for each TSP along the transaction path.

RAI Standard 11.1 All bilateral transactions are equal and opposite in direction for a source and sink BA.

RAI Standard 12.0 Ramp rate for the Eastern Interconnection shall be 10 minutes equally across the start and end times of the Transaction unless otherwise agreed to by all parties involved in the Transaction. For the Western Interconnection, the ramp rate shall be 20 minutes equally across the start and end times of the Transaction unless otherwise agreed to by all parties involved in the Transaction.

Ramp rate is a function of the responsiveness of the BA's system, some units just don't move as fast as others plus the interaction of generators with loads where large MW delta's can occur as load comes in or goes out, sounds more like a reliability standard that NERC should develop for the BA's not NASEB.