



**North American Energy Standards Board
Wholesale Electric Quadrant**

Business Practice Standards

Standards and Models Relating To

**Open Access Same-Time Information Systems (OASIS)
Coordinate Interchange
Area Control Error (ACE) Equation Special Cases
Manual Time Error Correction
Inadvertent Interchange Payback
Transmission Loading Relief (Eastern Interconnection)
Standards of Conduct
Contracts
Gas / Electric Coordination
Public Key Infrastructure (PKI)**

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Version 001

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The North American Energy Standards Board (NAESB), Wholesale Electric Quadrant (WEQ) Standards Manuals Relating to Open Access Same-Time Information Systems (OASIS), Version 1.4, Coordinate Interchange, Area Control Error (ACE) Equation Special Cases, Manual Time Error Correction, Inadvertent Interchange Payback, Transmission Loading Relief (Eastern Interconnection), Standards of Conduct, Contracts, Gas / Electric Coordination, Public Key Infrastructure (PKI) and any amendments or errata thereto, are protected by NAESB’s federal copyright 1996-2007. NAESB hereby grants the authorized users who are NAESB members in good standing permission to reproduce material therein for internal reference and use and not for use by any unauthorized third parties. Reproduction in any other form, or for any other purpose, is forbidden without express permission of NAESB. Copies are available for purchase from NAESB. This non-exclusive limited license is non-transferable and may be revoked without notice upon violation of the terms contained herein or any applicable law or regulation. Each user grants NAESB the right to audit its use to assure compliance with these terms.

The standards follow a numbering convention which is x-y.z(.n):

x	standard number and topic
y	subordinate category or section
z(.n)	optional further subordinate sections for granularity
A-G, P or M	optional: <ul style="list-style-type: none"> A - (Appendix A or examples) B - (Appendix B) C - (Appendix C) D - (Appendix D) E - (Appendix E) F - (Appendix F) G - (Appendix G) P - Principle M - Model

x	Business Topic – Standard Number
	001 OASIS
	002 OASIS Standards and Communication Protocols (S&CP)
	003 OASIS S&CP Data Dictionaries
	004 Coordinate Interchange
	005 ACE Equation Special Cases
	006 Manual Time Error Corrections
	007 Inadvertent Interchange Payback
	008 Transmission Loading Relief
	009 Standards of Conduct
	010 Contracts Related Standards
	011 Gas / Electric Coordination
	012 Public Key Infrastructure (PKI)
	013 OASIS Implementation Guide

y Subordinate category or section to provide granularity, some of which may be specific categories as noted below:

	001	0	Definition of Terms
	001	1	Provision of Open Access Transmission Service
	001	2	Transmission and Ancillary Services Attributes
	001	3	OASIS Registration Procedures
	001	4	On-Line Negotiation and Confirmation Process
	001	5	Procurement of Ancillary and Other Services
	001	6	Pathnaming Standards
	001	7	Next Hour Market Service
	001	8	Requirement for Dealing with Multiple Identical Transmission Service Requests
	001	9	Requirements for Dealing with Redirects on a Firm Basis
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001	A	Standard 8 Examples (Queue Hoarding)
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002	0	Definition of Terms
002	1	RESERVED
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004	C	Required and Correctable Tag Data
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005	1	Jointly Owned Units
005	2	Supplemental Regulation Service
005	3	Load or Generation Transfer by Telemetry
005	A	Examples of Accounting of Jointly Owned Units as Pseudo-Tie or Dynamic Schedule
006	0	Definition of Terms
006	1 to 3	Business Practice Requirements
006	4	Time Error Initiation
006	5	Interconnection Time Monitoring
006	6	Time Error Correction Labeling
006	7	Time Correction Offset
006	8	Interconnection Time Error Notification
006	9 to 10	Western Interconnection Time Error Notification
006	11	Time Correction on Reconnection
006	12	Leap Seconds
007	0	Definition of Terms
007	1	Inadvertent Interchange Payback
007	2	Other Payback Methods
007	A	Inadvertent Interchange On-and Off-Peak Periods
008	0	Definition of Terms
008	1	General Requirements Regarding Use of Interconnection-wide TLR Procedures
008	2	Interchange Transaction Priorities for Use With Interconnection-wide TLR Procedures

008	3	Eastern Interconnection Procedure for Physical Curtailment of Interchange Transactions
008	A	Examples of On-Path and Off-Path Mitigation
008	B	Example Calculations of the Per Generator Method
008	C	Transaction Curtailment Formula
008	D	Regional Differences
009	0	RESERVED
009	1	RESERVED
009	2	RESERVED
009	3	RESERVED
009	4	RESERVED
009	5	RESERVED
009	6	RESERVED
010	1	Funds Transfer Agreement
011	0	Definition of Terms
011	1	Business Practice Requirements
012	0	Definition of Terms
012	1	Business Practice Requirements
013	0	Usage of Terms
013	1	RESERVED
013	2	OASIS Transaction Processing
013	3	Specific Template Implementation
013	4	Example Implementation

z(.n) Sequentially assigned number(s) to preserve uniqueness with subordinate numbers to provide granularity

If the item is a principle or model, it will be so noted with a (P) or (M) following the number to which it is assigned. If the item is an example of a specific standard and is not embedded in the text of the standard, it will be so noted with an “A” following the number of the specific standard for which the example applies. This edition of standards has no principles or models.

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Terms used:

- NAESB - North American Energy Standards Board
- NERC - North American Electricity Reliability Council
- WEQ - Wholesale Electric Quadrant

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Business Practices for Open Access Same-Time Information Systems (OASIS), Version 1.4

Introduction

Definition of Terms

- 001-0.1** **Affiliate** - (1) For any exempt wholesale generator, as defined under section 32(a) of the Public Utility Holding Company Act of 1935, as amended, the same as provided in section 214 of the Federal Power Act; and (2) For any other entity, the term affiliate has the same meaning as given in 18 CFR 161.2(a).
- 001-0.15** **Appropriate Regulating Authority** – the entity which has regulating authority over a given Transmission Provider.
- 001-0.16** **Assignee** – An Eligible Customer that receives point-to-point transmission service rights from a Reseller either through a Resale or a Transfer.
- 001-0.2** **Capacity Available to Redirect** – the granted capacity of the Parent Reservation at the time of customer confirmation (CAPACITY_GRANTED) less all confirmed reassignments (e.g., resales), confirmed redirects on a firm basis, confirmed redirects on a non-firm basis, displacements, and approved schedules.
- 001-0.3** **Commission** – the Federal Energy Regulatory Commission, or appropriate regulating authority.
- 001-0.4** **Denial of Service** – this is the intentional or unintentional degradation of OASIS performance that impacts all customer interactions with OASIS by consuming cyber resources.
- 001-0.17** **Eligible Customer** – as defined in the FERC Pro Forma Open Access Transmission Tariff.
- 001-0.14** **FERC** – Federal Energy Regulatory Commission
- 001-0.18** **Financially Obligated Transmission Customer (FOTC)** – The customer financially obligated to the Transmission Provider for transmission service (i.e., service procured either through direct purchase from the Transmission Provider, Reseller, or through a Transfer of transmission rights).

001-0.5 **Identical Service Requests** – “identical service requests” are those OASIS transmission service requests that have exactly the same values for the following OASIS template Data Elements:

- CUSTOMER_CODE
- CUSTOMER_DUNS
- SERVICE_INCREMENT
- TS_CLASS
- START_TIME
- STOP_TIME
- POR*
- POD*
- PATH*

*Service requests where any combination of PATH, POR and/or POD represent exactly the same commercial transmission elements shall be considered as “having the exact same value.”

001-0.6 **Parent Reservation** – an existing, confirmed reservation being modified by a Redirect, Transfer, Resale, etc.

001-0.7 **Queue Flooding** – excessive submission of identical service requests.

001-0.8 **Queue Hoarding** – this is the act, intentionally or unintentionally, of not confirming or withdrawing an accepted service request such that it impacts the ability of other willing buyers to secure service in a timely fashion.

001-0.9 **Responsible Party** – the Transmission Provider or an agent to whom the Transmission Provider has delegated the responsibility of meeting any of the requirements of this part.

001-0.19 **Resale** – The request to convey scheduling rights associated with a reservation for Point-To-Point Transmission Service from a Reseller to an Assignee.

001-0.10 **Reseller** – The customer that holds Point-To-Point Transmission Service rights and offers those rights for sale on the (secondary) transmission market.

001-0.20 **Transfer** – Request to convey all rights and obligations associated with a reservation for Point-To-Point Transmission Service from a Reseller to an Assignee.

001-0.11 **Transmission Provider** – any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce.

001-0.12 **Transmission Customer** – any eligible customer (or its designated agent) that can or does execute a transmission service agreement or can or does receive transmission service.

001-0.13 **Wholesale Merchant Function** – the sale for resale of electric energy in interstate commerce.

Business Practice Requirements

001-1.0 PROVISION OF OPEN ACCESS TRANSMISSION SERVICE

All transmission providers shall provide open access transmission service in accordance with the following requirements.

Applicability

Standard 1 applies to any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce and to transactions limited to the provision of open access transmission service performed under the pro forma tariff required under currently applicable regulations.

Purpose

- (a) The purpose of Standard 1 is to ensure that potential customers of open access transmission service receive access to information that will enable them to obtain transmission service on a non-discriminatory basis from any Transmission Provider. These rules provide standards of conduct and require the Transmission Provider (or its agent) to create and operate an Open Access Same-time Information System (OASIS) that gives all users of the open access transmission system access to the same information.
- (b) The OASIS will provide information by electronic means about available transmission capability for point-to-point service and will provide a process for requesting transmission service. OASIS will enable Transmission Providers and Transmission Customers to communicate promptly requests and responses to buy and sell available transmission capacity offered under the Transmission Provider's tariff.

001-1.1 RESERVED

001-1.2 RESERVED

001-1.3 RESERVED

001-1.4 RESERVED

001-1.5 OBLIGATIONS OF TRANSMISSION PROVIDERS AND RESPONSIBLE PARTIES

- (a) Each Transmission Provider is required to provide for the operation of an OASIS, either individually or jointly with other Transmission Providers, in accordance with the requirements of these Standards. The Transmission Provider may delegate this responsibility to a Responsible Party such as another Transmission Provider, an Independent System Operator, a Regional Transmission Group, or a Regional Reliability Council.

- (b) A Responsible Party must:
 - (1) Provide access to an OASIS providing standardized information relevant to the availability of transmission capacity, prices, and other information (as described in these Standards) pertaining to the transmission system for which it is responsible;
 - (2) Operate the OASIS in compliance with the standardized procedures and protocols found in the NAESB Standards and Communication Protocols for Open Access Same Time Information Systems; and
 - (3) Operate the OASIS in compliance with the Business Practice Standards for Open Access Same-time Information System (OASIS) Transactions set forth herein.
- (c) A Responsible Party may not deny or restrict access to an OASIS user merely because that user makes automated computer-to-computer file transfers or queries, or extensive requests for data.
- (d) In the event that an OASIS user's grossly inefficient method of accessing an OASIS node or obtaining information from the node seriously degrades the performance of the node, a Responsible Party may limit a user's access to the OASIS node without prior Commission approval. The Responsible Party must immediately contact the OASIS user to resolve the problem. Notification of the restriction must be made to the Commission within two business days of the incident and include a description of the problem. A closure report describing how the problem was resolved must be filed with the Commission within one week of the incident.
- (e) In the event that an OASIS user makes an error in a query, the Responsible Party can block the affected query and notify the user of the nature of the error. The OASIS user must correct the error before making any additional queries. If there is a dispute over whether an error has occurred, the procedures in paragraph (d) of this section apply.
- (f) Transmission Providers must provide "read only" access to the OASIS to Commission staff and the staffs of State regulatory authorities, at no cost, after such staff members have complied with the requisite registration procedures.

001-1.6

INFORMATION TO BE POSTED ON THE OASIS

- (a) The information posted on the OASIS must be in such detail and the OASIS must have such capabilities as to allow Transmission Customers to:
 - (1) Make requests for transmission services offered by Transmission Providers, Resellers and other providers of ancillary services;

- (2) View and download in standard formats, using standard protocols, information regarding the transmission system necessary to enable prudent business decision making;
 - (3) Post, view, upload and download information regarding available products and desired services;
 - (4) Clearly identify the degree to which transmission service requests or schedules were denied or interrupted;
 - (5) Obtain access, in electronic format, to information to support available transmission capability calculations and historical transmission service requests and schedules for various audit purposes; and
 - (6) Make file transfers and automated computer-to-computer file transfers and queries as defined by the Standards and Communications Protocols Document.
- (b) Posting transmission capability. The transmission capability that is expected to be available on the Transmission Provider's system (ATC) and the total transmission capability (TTC) of that system shall be calculated and posted for each Posted Path as set out in this section.
- (1) Definitions. For purposes of this section the terms listed below have the following meanings:
 - (i) Posted path means any control area to control area interconnection; any path for which service is denied, curtailed or interrupted for more than 24 hours in the past 12 months; and any path for which a customer requests to have ATC or TTC posted. For this last category, the posting must continue for 180 days and thereafter until 180 days have elapsed from the most recent request for service over the requested path. For purposes of this definition, an hour includes any part of an hour during which service was denied, curtailed or interrupted.
 - (ii) Constrained posted path means any posted path having an ATC less than or equal to 25 percent of TTC at any time during the preceding 168 hours or for which ATC has been calculated to be less than or equal to 25 percent of TTC for any period during the current hour or the next 168 hours.
 - (iii) Unconstrained posted path means any posted path not determined to be a constrained posted path.
 - (iv) The word interconnection, as used in the definition of "posted path", means all facilities connecting two adjacent systems or control areas.

- (2) Calculation methods, availability of information, and requests.
 - (i) Information used to calculate any posting of ATC and TTC must be dated and time-stamped and all calculations shall be performed according to consistently applied methodologies referenced in the Transmission Provider's transmission tariff and shall be based on current industry practices, standards and criteria.
 - (ii) On request, the Responsible Party must make all data used to calculate ATC and TTC for any constrained posted paths publicly available (including the limiting element(s) and the cause of the limit (e.g., thermal, voltage, stability) in electronic form within one week of the posting. The information is required to be provided only in the electronic format in which it was created, along with any necessary decoding instructions, at a cost limited to the cost of reproducing the material. This information is to be retained for six months after the applicable posting period.
 - (iii) System planning studies or specific network impact studies performed for customers to determine network impacts are to be made publicly available in electronic form on request and a list of such studies shall be posted on the OASIS. A study is required to be provided only in the electronic format in which it was created, along with any necessary decoding instructions, at a cost limited to the cost of reproducing the material. These studies are to be retained for two years.
- (3) Posting. The ATC and TTC for all Posted Paths must be posted in megawatts by specific direction and in the manner prescribed in this subsection.
 - (i) Constrained posted paths—
 - (A) For Firm ATC and TTC.
 - (1) The posting shall show ATC and TTC for a 30-day period. For this period postings shall be: by the hour, for the current hour and the 168 hours next following; and thereafter, by the day. If the Transmission Provider charges separately for on-peak and off-peak periods in its tariff, ATC and TTC will be posted daily for each period.
 - (2) Postings shall also be made by the month, showing for the current month and the 12 months next following.

- (3) If planning and specific requested transmission studies have been done, seasonal capability shall be posted for the year following the current year and for each year following to the end of the planning horizon but not to exceed 10 years.
 - (B) For Non-Firm ATC and TTC. The posting shall show ATC and TTC for a 30-day period by the hour and days prescribed under paragraph (b)(3)(i)(A)(1) of this standard and, if so requested, by the month and year as prescribed under paragraph (b)(3)(i)(A) (2) and (3) of this standard.
 - (C) Updating Posted Information for Constrained Paths.
 - (1) The capability posted under paragraphs (b)(3)(i) (A) and (B) of this standard must be updated when transactions are reserved or service ends or whenever the TTC estimate for the Path changes by more than 10 percent.
 - (2) All updating of hourly information shall be made on the hour.
 - (ii) Unconstrained posted paths.
 - (A) Postings of firm and nonfirm ATC and TTC shall be posted separately by the day, showing for the current day and the next six days following and thereafter, by the month for the 12 months next following. If the Transmission Provider charges separately for on-peak and off-peak periods in its tariff, ATC and TTC will be posted separately for the current day and the next six days following for each period. These postings are to be updated whenever the ATC changes by more than 20 percent of the Path's TTC.
 - (B) If planning and specific requested transmission studies have been done, seasonal capability shall be posted for the year following the current year and for each year following until the end of the planning horizon but not to exceed 10 years.
- (c) Posting Transmission Service Products and Prices.
 - (1) Transmission Providers must post prices and a summary of the terms and conditions associated with all transmission products offered to Transmission Customers.
 - (2) Transmission Providers must provide a downloadable file of their complete tariffs in the same electronic format as the tariff that is filed with the Commission.

- (3) Any offer of a discount for any transmission service made by the Transmission Provider must be announced to all potential customers solely by posting on the OASIS.
- (4) For any transaction for transmission service agreed to by the Transmission Provider and a customer, the Transmission Provider (at the time when ATC must be adjusted in response to the transaction), must post on the OASIS (and make available for download) information describing the transaction (including: price; quantity; points of receipt and delivery; length and type of service; identification of whether the transaction involves the Transmission Provider's wholesale merchant function or any affiliate; identification of what, if any, ancillary service transactions are associated with this transmission service transaction; and any other relevant terms and conditions) and shall keep such information posted on the OASIS for at least 30 days. A record of the transaction must be retained and kept available as part of the audit log required in Standard 1.7.
- (5) Customers choosing to use the OASIS to offer for resale transmission capacity they have purchased must post relevant information to the same OASIS as used by the one from whom the Reseller purchased the transmission capacity. This information must be posted on the same display page, using the same tables, as similar capability being sold by the Transmission Provider, and the information must be contained in the same downloadable files as the Transmission Provider's own available capability. A customer reselling transmission capacity without the use of an OASIS must, nevertheless, inform the original Transmission Provider of the transaction within any time limits prescribed by the Transmission Provider's tariff or in a contract or service agreement between the Transmission Provider and a customer.

(d) Posting Ancillary Service Offerings and Prices.

- (1) Any ancillary service required to be provided or offered under the pro forma tariff required under currently applicable regulations must be posted with the price of that service.
- (2) Any offer of a discount for any ancillary service made by the Transmission Provider must be announced to all potential customers solely by posting on the OASIS.
- (3) For any transaction for ancillary service agreed to by the Transmission Provider and a customer, the Transmission Provider (at the time when ATC must be adjusted in response to an associated transmission service transaction, if any), must post on the OASIS (and make available for download) information describing the transaction (including: date and time when the agreement was entered into; price; quantity; length and type of service; identification of whether the transaction involves the Transmission Provider's wholesale merchant function or any affiliate; identification of what, if any, transmission service transactions are associated with this ancillary service transaction; and any other relevant terms and

conditions) and shall keep such information posted on the OASIS for at least 30 days. A record of the transaction must be retained and kept available as part of the audit log required in Standard 1.7.

- (4) Any other interconnected operations service offered by the Transmission Provider may be posted, with the price for that service.
 - (5) Any entity offering an ancillary service shall have the right to post the offering of that service on the OASIS if the service is one required to be offered by the Transmission Provider under their pro forma tariff. Any entity may also post any other interconnected operations service voluntarily offered by the Transmission Provider. Postings by customers and third parties must be on the same page, and in the same format, as postings of the Transmission Provider.
- (e) Posting specific transmission and ancillary service requests and responses—
- (1) General rules.
 - (i) All requests for transmission and ancillary service offered by Transmission Providers under the pro forma tariff, including requests for discounts, must be made on the OASIS, and posted prior to the Transmission Provider responding to the request, except as discussed in paragraphs (e)(1) (ii) and (iii). The Transmission Provider must post all requests for transmission service and for ancillary service comparably. Requests for transmission and ancillary service, and the responses to such requests, must be conducted in accordance with the Transmission Provider's tariff, and all currently applicable laws and regulations.
 - (ii) The requirement in paragraph (e)(1)(i) of this standard, to post requests for transmission and ancillary service offered by Transmission Providers under the pro forma tariff, including requests for discounts, prior to the Transmission Provider responding to the request, does not apply to requests for next-hour service made during Phase I.
 - (iii) In the event that a discount is being requested for ancillary services that are not in support of basic transmission service provided by the Transmission Provider, such request need not be posted on the OASIS.
 - (iv) In processing a request for transmission or ancillary service, the Responsible Party shall post the same information as required in Standard 1.6(c)(4), Standard 1.6(d)(3), and the following information: the date and time when the request is made, its place in any queue, the status of that request, and the result (accepted, denied, withdrawn).
 - (2) Posting when a request for transmission service is denied.

- (i) When a request for service is denied, the Responsible Party must provide the reason for that denial as part of any response to the request.
 - (ii) Information to support the reason for the denial, including the operating status of relevant facilities, must be maintained for 60 days and provided, upon request, to the potential Transmission Customer.
 - (iii) Any offer to adjust operation of the Transmission Provider's system to accommodate the denied request must be posted and made available to all Transmission Customers at the same time.
- (3) Posting when a transaction is curtailed or interrupted.
- (i) When any transaction is curtailed or interrupted, the Transmission Provider must post notice of the curtailment or interruption on the OASIS, and the Transmission Provider must state on the OASIS the reason why the transaction could not be continued or completed.
 - (ii) Information to support any such curtailment or interruption, including the operating status of the facilities involved in the constraint or interruption, must be maintained and made available upon request, to the curtailed or interrupted customer, the Commission staff, and any other person who requests it, for three years.
 - (iii) Any offer to adjust the operation of the Transmission Provider's system to restore a curtailed or interrupted transaction must be posted and made available to all curtailed and interrupted Transmission Customers at the same time.
- (f) Posting Transmission Service Schedules Information. Information on transmission service schedules must be recorded by the entity scheduling the transmission service and must be available on the OASIS for download. Transmission service schedules must be posted no later than seven calendar days from the start of the transmission service.
- (g) Posting Other Transmission-Related Communications.
- (1) The posting of other communications related to transmission services must be provided for by the Responsible Party. These communications may include want ads and other communications such as using the OASIS as a Transmission-related conference space or to provide transmission-related messaging services between OASIS users). Such postings carry no obligation to respond on the part of any market participant.
 - (2) The Responsible Party is responsible for posting other transmission-related communications in conformance with the instructions provided by the third party on whose behalf the communication is posted. It is

the responsibility of the third party requesting such a posting to ensure the accuracy of the information to be posted.

- (3) Notices of transfers of personnel shall be posted as described in Standard WEQBPS-007-000 4(c). The posting requirements are the same as those provided in Standard 1.7 for audit data postings.
- (4) Logs detailing the circumstances and manner in which a Transmission Provider or Responsible Party exercised its discretion under any terms of the tariff shall be posted as described in Standard WEQBPS-007-000 5(c)(4). The posting requirements are the same as those provided in Standard 1.7 for audit data postings.

001-1.7 AUDITING TRANSMISSION SERVICE INFORMATION

- (a) All OASIS database transactions, except other transmission-related communications provided for under Standard 1.6(g)(2), must be stored, dated, and time stamped.
- (b) Audit data must remain available for download on the OASIS for 9 days, except ATC/TTC postings that must remain available for download on the OASIS for 20 days. The audit data are to be retained and made available upon request for download for three years from the date when they are first posted in the same electronic form as used when they originally were posted on the OASIS.

001-1.8 OBLIGATIONS OF OASIS USERS

Each OASIS user must notify the Responsible Party one month in advance of initiating a significant amount of automated queries. The OASIS user must also notify the Responsible Party one month in advance of expected significant increases in the volume of automated queries.

Standard Terminology for Transmission and Ancillary Services

001-2.0 ATTRIBUTE VALUES DEFINING THE PERIOD OF SERVICE

The data templates of the most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems have been developed with the use of standard service attributes in mind. What the most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems does not offer are specific definitions for each attribute value. This section offers standards for these services attribute definitions to be used in conjunction with the Phase IA data templates.

Fixed services are associated with transmission services whose periods align with calendar periods such as a day, week, or month. Sliding services are fixed in duration, such as a week or month, but the start and stop time may slide. For example a Sliding week could start on Tuesday and end on the following

Monday. Extended allows for services in which the start time may slide and also the duration may be longer than a standard length. For example an Extended week of service could be nine consecutive days. Various transmission service offerings using these terms are defined in Standards 2.1.1 through 2.1.14 below. Next_Increment indicates the next available full Service_Increment, such as the next hour, next day, or next week. Next_Increment is added at this time to address Next Hour Market Service, but may be used in the future to denote other products.

Table 2-1 identifies the standard terminology in OASIS Phase IA for the attributes SERVICE_INCREMENT (Hourly, Daily, Weekly, Monthly, and Yearly) and TS_WINDOW (Fixed, Sliding, Extended, and Next_Increment). Values shown in Table 2-1 as N/A (Not Applicable) are not sufficiently common in the market to require standards.

Next Hour Market Service, a new pro forma service, is denoted as having a Service Increment of Hourly and a TS_WINDOW of Next_Increment.

TABLE 2-1
STANDARD SERVICE PERIOD ATTRIBUTE VALUES IN PHASE IA

	Fixed	Sliding	Extended ¹	Next_Increment
Hourly	X	N/A	N/A	X ²
Daily	X	X	X	N/A
Weekly	X	X	X	N/A
Monthly	X	X	X	N/A
Yearly	X	X	X	N/A

Notes for Table 2-1:

- ¹ Included in the most current version of the Data Dictionary for the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems
- ² Next Hour Market Service is identified by Service Increment = Hourly and TS_WINDOW = Next_Increment

The existence of an attribute value in this table does not imply the services must be offered by a Transmission Provider. Requirements as to which services must be offered are defined by regulation and tariffs. Likewise, absence of a service period value in Table 2-1 does not restrict a Transmission Provider from offering a service. The intent of the table is to establish common terminology associated with standard products.

Each service period value assumes a single time zone specified by the Transmission Provider. It is recognized that daylight time switches must be accommodated in practice, but they have been omitted here for the purpose of simplicity.

001-2.1 A Transmission Provider shall use the values and definitions below for the service period attributes, SERVICE_INCREMENT AND TS_WINDOW for all transmission services offered on OASIS, or shall post alternative service period values and associated definitions on the OASIS Home Page at

<http://www.tsin.com>, or shall use existing attribute values and definitions posted by other Transmission Providers. (See Standard WEQ-001-3 for registration requirements.)

001-2.1.1 Fixed Hourly

The service starts at the beginning of a clock hour and stops at the end of a clock hour.

001-2.1.2 Fixed Daily

The service starts at 00:00 and stops at 24:00 of the same calendar date (same as 00:00 of the next consecutive calendar date).

001-2.1.3 Fixed Weekly

The service starts at 00:00 on Monday and stops at 24:00 of the following Sunday (same as 00:00 of the following Monday).

001-2.1.4 Fixed Monthly

The service starts at 00:00 on the first date of a calendar month and stops at 24:00 on the last date of the same calendar month (same as 00:00 of the first date of the next consecutive month).

001-2.1.5 Fixed Yearly

The service starts at 00:00 on the first date of a calendar year and ends at 24:00 on the last date of the same calendar year (same as 00:00 of the first date of the next consecutive year).

001-2.1.6 Sliding Daily

The service starts at the beginning of any hour of the day and stops exactly 24 hours later at the same time on the next day.

001-2.1.7 Sliding Weekly

The service starts at 00:00 of any date and stops exactly 168 hours later at 00:00 on the same day of the next week.

001-2.1.8 Sliding Monthly

The service starts at 00:00 of any date and stops at 00:00 on the same date of the next month (28-31 days later). If there is no corresponding date in the following month, the service stops at 24:00 on the last day of the next month.

For example: SLIDING MONTHLY starting at 00:00 on January 30 would stop at 24:00 on February 28 (same as 00:00 March 1).

01-2.1.9 Sliding Yearly

The service starts at 00:00 of any date and stops at 00:00 on the same date of the following year. If there is no corresponding date in the following year, the service stops at 24:00 on the last day of the same month in the following year.

For example SLIDING YEARLY service starting on February 29 would stop on February 28 of the following year.

01-2.1.10 Extended Daily

The service starts at any hour of a day and stops more than 24 hours later and less than 168 hours later.

01-2.1.11 Extended Weekly

The service starts at 00:00 of any date and stops at 00:00 more than one week later, but less than four weeks later.

01-2.1.12 Extended Monthly

The service starts at 00:00 of any date and stops at 00:00 more than one month later, but less than twelve months later.

01-2.1.13 Extended Yearly

The service starts at 00:00 of any date and stops at 00:00 more than one year later, but must be requested in increments of full years.

01-2.1.14 Next Increment Hourly

The service starts at the beginning of the next clock hour and stops at the end of that clock hour.

Attribute Values Defining Service Class

001-2.2 A Transmission Provider shall use the values and definitions below to describe the service class, TS_CLASS, for transmission services offered on OASIS, or shall post alternative TS_CLASS attribute values and associated definitions on the OASIS Home Page at <http://www.tsin.com>, or shall use the attribute values and definitions posted by other Transmission Providers. (See Standard WEQ-001-3 for registration requirements.)

01-2.2.1 Firm

Transmission service that always has priority over NONFIRM transmission service and includes Native Load Customers, Network Customers, and any transmission service not classified as non-firm in accordance with the definitions in the pro forma tariff.

01-2.2.2 Non-Firm

Transmission service that is reserved and/or scheduled on an as-available basis and is subject to curtailment or interruption at a lesser priority compared to FIRM transmission service, including Native Load Customers and Network Customers, in accordance with the definitions in the pro forma tariff.

Attribute Values Defining Service Types

001-2.3 A Transmission Provider shall use the values and definitions below to describe the service type, TS_TYPE, for transmission services offered on OASIS, or shall post alternative attribute values and associated definitions on the OASIS Home Page at <http://www.tsin.com>, or shall use the attribute values and definitions posted by other Transmission Providers. (See Standard 3 for registration requirements.)

01-2.3.1 Point-to-point (PTP)

Transmission service that is reserved and/or scheduled between specified POINTS OF RECEIPT and DELIVERY pursuant to Part II of the pro forma tariff and in accordance with the definitions in the pro forma tariff.

01-2.3.2 Network

Network Integration Transmission Service that is provided to serve a Network Customer load pursuant to Part III of the pro forma tariff and in accordance with the definitions in the pro forma tariff.

Curtailment Priorities

001-2.4 A Transmission Provider that has adopted NERC TLR Procedures shall use the curtailment priority definitions contained in those procedures for all transmission services offered on OASIS. A Transmission Provider that has adopted alternative curtailment procedures shall post its alternative attribute values and associated definitions on the OASIS Home Page at <http://www.tsin.com>, or shall use attribute values and definitions posted by another Transmission Provider. (See Standard 3 for registration requirements.)

Other Service Attribute Values

Six ancillary services are pre-defined. Other services may be offered pursuant to filed tariffs.

001-2.5 A Transmission Provider shall use the definitions below to describe the AS_TYPES offered on OASIS, or shall post alternative attribute values and associated definitions on the OASIS Home Page at <http://www.tsin.com>, or shall use attribute values and definitions posted by another Transmission Provider. (See Standard 3 for registration requirements.)

Ancillary Services Definitions

- 001-2.5.1** **Scheduling, System Control and Dispatch Service (SC)** - is necessary to the provision of basic transmission service within every control area. This service can be provided only by the operator of the control area in which the transmission facilities used are located. This is because the service is to schedule the movement of power through, out of, within, or into the control area. This service also includes the dispatch of generating resources to maintain generation/load balance and maintain security during the transaction and in accordance with Standard 3.1 (and Schedule 1) of the pro forma tariff.
- 001-2.5.2** **Reactive Supply and Voltage Control from Generation Sources Service (RV)** - is the provision of reactive power and voltage control by generating facilities under the control of the control area operator. This service is necessary to the provision of basic transmission service within every control area and in accordance with Standard 3.2 (and Schedule 2) of the pro forma tariff.
- 001-2.5.3** **Regulation and Frequency Response Service (RF)** - is provided for transmission within or into the transmission provider's control area to serve load in the area. Customers may be able to satisfy the regulation service obligation by providing generation with automatic generation control capabilities to the control area in which the load resides and in accordance with Standard 3.3 (and Schedule 3) of the pro forma tariff.
- 001-2.5.4** **Energy Imbalance Service (I)** - is the service for transmission within and into the transmission provider's control area to serve load in the area. Energy imbalance represents the deviation between the scheduled and actual delivery of energy to a load in the local control area over a single hour and in accordance with Standard 3.4 (and Schedule 4) of the pro forma tariff.
- 001-2.5.5** **Operating Reserve - Spinning Reserve Service (SP)** - is provided by generating units that are on-line and loaded at less than maximum output. They are available to serve load immediately in an unexpected contingency, such as an unplanned outage of a generating unit and in accordance with Standard 3.5 (and Schedule 5) of the pro forma tariff.
- 001-2.5.6** **Operating Reserve - Supplemental Reserve Service (SU)** - is generating capacity that can be used to respond to contingency situations. Supplemental reserve is not available instantaneously, but rather within a short period (usually ten minutes). It is provided by generating units that are on-line but unloaded, by quick-start generation, and by customer interrupted load and in accordance with Standard 3.6 (and Schedule 6) of the pro forma tariff.

Other Service Definitions

Other services may be offered to Transmission Customers through Commission-approved revisions to their individual open access tariffs. Examples of other services that may be offered include the Interconnected Operations Services described below in Standards 2.5.7, 2.5.8, and 2.5.9. Ancillary service definitions may be offered pursuant to an individual transmission provider's specific tariff filings.

001-2.5.7 **Dynamic Transfer (DT)** - is the provision of the real-time monitoring, telemetering, computer software, hardware, communications, engineering, and administration required to electronically move all or a portion of the real energy services associated with a generator or load out of its Host Control Area into a different Electronic Control Area.

001-2.5.8 **Real Power Transmission Losses (TL)** - is the provision of capacity and energy to replace energy losses associated with transmission service on the Transmission Provider's system.

001-2.5.9 **System Black Start Capability (BS)** - is the provision of generating equipment that, following a system blackout, is able to start without an outside electrical supply. Furthermore, BLACK START CAPABILITY is capable of being synchronized to the transmission system such that it can provide a startup supply source for other system capacity that can then be likewise synchronized to the transmission system to supply load as part of a process of re-energizing the transmission system.

001-2.6 A Transmission Provider shall use the definitions below to describe the scheduling period leading up to the start time of a transaction:

001-2.6.1 **Same-Day** is after 2 p.m. of the preceding day and

001-2.6.2 **Next-Hour** is one hour or less prior to the service start time.

OASIS Registration Procedures

001-3 **ENTITY REGISTRATION**

Operation of OASIS requires unambiguous identification of parties.

001-3.1 All entities or persons using OASIS shall register the identity of their organization (including DUNS number) or person at the OASIS Home Page at <http://www.tsin.com>. Registration identification shall include the parent entity (if any) of the registrant. Registration shall be a prerequisite to OASIS usage and renewed annually and whenever changes in identification occur and thereafter. An entity or person not complying with this requirement or providing false information may be denied access by a transmission provider to that transmission provider's OASIS node.

The registration requirement applies to any entity logging onto OASIS for the purpose of using or updating information, including Transmission Providers, Transmission Customers, Observers, Control Areas, Security Coordinators, and Independent System Operators.

Process to Register Non-Standard Service Attribute Values

Standard WEQ-001-2 of the NAESB OASIS Business Practice Standards addresses the use of standard terminology in defining services on OASIS. These standard definitions for service attribute values will be posted publicly on the OASIS Home Page at <http://www.tsin.com> and may be used by all Transmission Providers to offer transmission and ancillary services on OASIS. If

the Transmission Provider determines that the standard definitions are not applicable, the Transmission Provider may register new attribute values and definitions on the OASIS Home Page. Any Transmission Provider may use the attribute values and definitions posted by another Transmission Provider.

001-3.2 Providers of transmission and ancillary services shall use only attribute values and definitions that have been registered on the OASIS Home Page at <http://www.tsin.com> for all transmission and ancillary services offered on their OASIS.

001-3.3 Providers of transmission and ancillary services shall endeavor to use on their OASIS nodes attribute values and definitions that have been posted by other Transmission Providers on the OASIS Home Page at <http://www.tsin.com> whenever possible.

Registration of Points of Receipt and Delivery

In order to improve coordination of path naming and to enhance the identification of commercially available connection points between Transmission Providers and regions, the business practice for Phase IA OASIS requires that:

- I. Transmission Providers register at the OASIS Home Page at <http://www.tsin.com>, all service points (Points of Receipt and Delivery) for which transmission service is available over the OASIS.
- II. Each Transmission Provider would then indicate on its OASIS node, for each Path posted on its OASIS node, the Points of Receipt and Delivery to which each Path is connected.

A Transmission Provider is not required to register specific generating stations as Points of Receipt, unless they were available as service points for the purposes of reserving transmission service on OASIS. The requirement also does not include registration of regional flowgates, unless they are service points for the purposes of reserving transmission on OASIS.

001-3.4 A Transmission Provider shall register and thereafter maintain on the OASIS Home Page at <http://www.tsin.com> all Points of Receipt and Delivery to and from which a Transmission Customer may reserve and schedule transmission service.

001-3.5 For each reservable Path posted on their OASIS nodes, Transmission Providers shall indicate the available Point(s) of Receipt and Delivery for that Path. These Points of Receipt and Delivery shall be from the list registered on the OASIS Home Page at <http://www.tsin.com>.

001-3.6 When two or more Transmission Providers share common Points of Receipt or Delivery, or when a Path connects Points of Receipt and Delivery in neighboring systems, the Transmission Providers owning and/or operating those facilities shall apply consistent names for those connecting paths or common paths on the OASIS.

001-4 ON-LINE NEGOTIATION AND CONFIRMATION PROCESS

001-4.1 All reservations and price negotiations shall be conducted on OASIS.

001-4.2 RESERVED

001-4.3 RESERVED

Phase IA Negotiation Process State Transition Diagram

The most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems provides a process state diagram to define the Customer and Transmission Provider interactions for negotiating transmission service. This diagram defines allowable steps in the reservation request, negotiation, approval and confirmation.

001-4.4 The state diagram appearing in Exhibit 4-1 in Section 4.2.10.2 of the most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems (Standard WEQ-002) constitutes a recommended business practice in OASIS Phase IA.

001-4.5 The definitions in Section 4.2.10.2 of the most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems (Standard WEQ-002) (status values) shall be applied to the process states in OASIS Phase IA.

Negotiations Without Competing Bids

The following practices are defined in order to enhance consistency of the reservation process across OASIS Phase IA nodes.

001-4.6 A Transmission Provider/Seller shall respond to a Customer's service request, consistent with filed tariffs, within the Provider Response Time Limit defined in **Table 4- Reservation Timing Requirements**. The time limit is measured from the time the request is QUEUED. A Transmission Provider may respond by setting the state of the reservation request to one of the following:

- I. INVALID
- II. DECLINED
- III. REFUSED
- IV. COUNTEROFFER
- V. ACCEPTED
- VI. STUDY (when the tariff allows), leading to REFUSED, COUNTEROFFER, or ACCEPTED.

001-4.7 Prior to setting a request to ACCEPTED, COUNTEROFFER, or REFUSED a Transmission Provider shall evaluate the appropriate resources and ascertain that the requested transfer capability is (or is not) available.

- 001-4.8** For any request that is REFUSED or INVALID, the Transmission Provider must indicate in the SELLER_COMMENTS field the reason the request was refused or invalid.
- 001-4.9** The Customer may change a request from QUEUED, RECEIVED, STUDY, COUNTEROFFER, REBID, or ACCEPTED to WITHDRAWN at any time prior to CONFIRMED.
- 001-4.10** From ACCEPTED or COUNTEROFFER, a Customer may change the status to CONFIRMED or WITHDRAWN. In addition, a Customer may change the status from COUNTEROFFER to REBID. The Customer has the amount of time designated as Customer Confirmation Time Limit in **Table 4-2 Reservation Timing Requirements** to change the state of the request to CONFIRMED. The Customer time limit is measured from the first time the request is moved to ACCEPTED or COUNTEROFFER, and is not reset with subsequent iterations of negotiation.
- 001-4.11** After expiration of the Customer Confirmation Time Limit, specified in **Table 4-2 Reservation Timing Requirements**, the Transmission Provider has a right to move the request to the RETRACTED state.
- 001-4.12** Should the Customer elect to respond to a Transmission Provider's COUNTEROFFER by moving a reservation request to REBID, the Transmission Provider shall respond by taking the request to a DECLINED, ACCEPTED, or COUNTEROFFER state within the Provider Counter Time Limit, specified in **Table 4-2 Reservation Timing Requirements**. The Transmission Provider response time is measured from the most recent REBID time.
- 001-4.13** The following timing requirements shall apply to all reservation requests:

TABLE 4-2
RESERVATION TIMING REQUIREMENTS

Class	Service Increment	Time QUEUED Prior to Start	Provider Evaluation Time Limit ¹	Customer Confirmation Time Limit ² after ACCEPTED or COUNTEROFFER ³	Provider Counter Time Limit after REBID ⁴
Non-Firm	Hourly	<1 hour	Best effort	5 minutes	5 minutes
Non-Firm	Hourly	>1 hour	30 minutes	5 minutes	5 minutes
Non-Firm	Hourly	Day ahead	30 minutes	30 minutes	10 minutes
Non-Firm	Daily	N/A	30 minutes	2 hours	10 minutes
Non-Firm	Weekly	N/A	4 hours	24 hours	4 hours
Non-Firm	Monthly	N/A	2 days ⁵	24 hours	4 hours
Firm	Daily	< 24 hours	Best effort	2 hours	30 minutes
Firm	Daily	N/A	30 days ⁶	24 hours	4 hours
Firm	Weekly	N/A	30 days ⁶	48 hours	4 hours
Firm	Monthly	N/A	30 days ⁶	4 days	4 hours
Firm	Yearly	60 days ⁷	30 days	15 days	4 hours

Notes for Table 4-2:

- 1 Consistent with regulations and filed tariffs, measurement starts at the time the request is QUEUED.
- 2 Confirmation time limits are not to be interpreted to extend scheduling deadlines or to override pre-exemption deadlines.
- 3 Measurement starts at the time the request is first moved to either ACCEPTED or COUNTEROFFER. The time limit does not reset on subsequent changes of state.
- 4 Measurement starts at the time the Transmission Customer changes the state to REBID. The measurement resets each time the request is changed to REBID.
- 5 Days are defined as calendar days.
- 6 Subject to expedited time requirements of Section 17.1 of the pro forma tariff. Transmission Providers shall make best efforts to respond within 72 hours, or prior to the scheduling deadline, whichever is earlier, to a request for Daily Firm Service received during period 2-30 days ahead of the service start time.
- 7 Subject to Section 17.1 of the pro forma tariff, whenever feasible and on a nondiscriminatory basis, transmission providers should accommodate requests made with less than 60 days notice.

Negotiations with Competing Bids for Constrained Resources

Competing bids exist when multiple requests cannot be accommodated due to a lack of available transmission capacity. One general rule is that OASIS requests should be evaluated and granted priority on a first-come-first-served basis established by OASIS QUEUED time. Thus, the first to request service should get it, all else being equal.

Exceptions to this first-come-first-served basis occur when there are competing requests for limited resources and the requests have different priorities established by FERC regulations and filed tariffs. Prior to the introduction of price negotiations, the attribute values that have served as a basis for determining priority include:

- I..... Type (Network, Point-to-point)
- II.....Class (Firm, Non-Firm)
- III.....Increment (Hourly, Daily, Weekly, Monthly, Yearly)
- IV.....Duration (the amount of time between the Start Date and the Stop Date)
- V.....Amount (the MW amount)

Under a negotiation model, price can also be used as an attribute for determining priority. The negotiation process increases the possibility that a Transmission Provider will be evaluating multiple requests that cannot all be accommodated due to limited resources. In this scenario, it is possible that an unconfirmed request with an earlier QUEUED time could be preempted (SUPERSEDED). For this to occur, the subsequent request would be of higher priority or of greater price.

- 001-4.14** Consistent with regulations and filed tariffs, the following are recommended relative priorities of Service Request Tiers¹. Specific exceptions may exist in accordance with filed tariffs. The priorities refer only to negotiation of service and do not refer to curtailment priority.
- 001-4.14.1** Service Request Tier 1: Native load, Network, or Long-term Firm
- 001-4.14.2** Service Request Tier 2: Short-term Firm
- 001-4.14.3** Service Request Tier 3: Network Service from Non-designated Resources
- 001-4.14.4** Service Request Tier 4: Non-firm
- 001-4.14.5** Service Request Tier 5: Non-firm Point-to-point Service over secondary receipt and delivery points
- 001-4.14.6** Service Request Tier 6: Non-firm Next Hour Market Service
- 001-4.15** Consistent with regulations and filed tariffs, reservation requests shall be handled in a first-come-first-served order based on QUEUE_TIME.
- 001-4.16** Consistent with regulations and filed tariffs, Table 4-3 describes the relative priorities of competing service requests and rules for offering right-of-first-refusal. While the table indicates the relative priorities of two competing requests, it also is intended to be applied in the more general case of more than two competing requests.

TABLE 4-3
PRIORITIES FOR COMPETING RESERVATION REQUESTS

R O W	Request 1	Is Preempted by Request 2	Right of First Refusal
1	Tier 1: Long-term Firm, Native Load, and Network Firm	N/A - Not preempted by a subsequent request.	N/A
2	Tier 2: Short-term Firm	Tier 1: Long-term Firm, Native Load, and Network Firm, while Request 1 is conditional. Once Request 1 is unconditional, it may not be preempted.	No

¹Note: The term Tier is introduced to avoid confusion with existing terms such as TS_CLASS.

R O W	Request 1	Is Preempted by Request 2	Right of First Refusal
3	Tier 2: Short-term Firm	Tier 2: Short-term Firm of longer term (duration), while Request 1 is conditional. Once Request 1 is unconditional, it may not be preempted. ¹	Yes, while Request 1 is conditional. Once Request 1 is unconditional, it may not be preempted and right of first refusal is not applicable.
4	Tier 3: Network Service From Non-Designated Resources	Tiers 1 and 2: All Firm (including Network).	No
5	Tier 4: All Non-Firm PTP	Tiers 1 and 2: All Firm (including Network).	No
6	Tier 4: All Non-Firm PTP	Tier 3: Network Service from Non-Designated Resources.	No
7	Tier 4: All Non-Firm PTP	Tier 4: Non-firm PTP of a longer term (duration) ¹ . Except in the last hour prior to start (See Standard 4.23).	Yes ²
8	Tier 4: All Non-Firm PTP	Tier 4: Non-firm PTP of equal term (duration) ¹ and higher price, when Request 1 is still unconfirmed and Request 2 is received pre-confirmed. A confirmed non-firm PTP may not be preempted for another non-firm request of equal duration. (See Standards 4.22 and 4.25.)	Yes ³
9	Tier 5: Non-firm PTP Service over secondary receipt and delivery points.	Tier 5 can be preempted by Tiers 1 through 4.	No
10	Tier 6: Non-firm Next Hour Market Service	Tier 6 can be preempted by Tiers 1 through 5.	No

Notes for Table 4-3:

- ¹ Longer duration, in addition to being higher SERVICE_INCREMENT (i.e., WEEKLY has priority over DAILY), also may mean more multiples of the same SERVICE_INCREMENT (i.e., 3 days may have priority over 2 days). Multiple service increments must be at the same level of capacity.
- ² Right of first refusal when a subsequent request is received of a longer duration applies only if the first request is confirmed.

- ³ Right of first refusal when a subsequent request is received of an equal duration and higher price applies only when the first request is unconfirmed and the subsequent request is received pre-confirmed (see Standards 4.22 and 4.26).

- 001-4.17** For a request or reservation that is Superseded or Displaced, the Transmission Provider must indicate the Assignment Reference Number of the competing request and the reason for denial of service in the SELLER_COMMENTS field.
- 001-4.18** Given competing requests for a limited resource and a right-of-first-refusal is not required to be offered, the Transmission Provider may immediately move requests in the CONFIRMED state to DISPLACED, or from an ACCEPTED or COUNTEROFFER state to SUPERSEDED, if the competing request is of higher priority, based on the rules represented in Table 4-3. These state changes require dynamic notification to the Customer if the Customer has requested dynamic notification on OASIS.
- 001-4.19** Prior to Confirmation, in those cases where right-of-first-refusal is required to be offered, the Transmission Provider shall move requests in the ACCEPTED state to COUNTEROFFER, to notify the Customer of the opportunity to match the subsequent offer.
- 001-4.20** A Customer who has been extended a right-of-first-refusal according to Table 4-3 shall have a confirmation time limit equal to the lesser of (a) the Customer Confirmation Time Limit in Table 4-2 or (b) 24 hours.
- 001-4.21** A Transmission Provider shall apply all rights-of-first-refusal in a nondiscriminatory and open manner for all Customers.
- 001-4.22** Once a non-firm PTP request has been confirmed, it shall not be displaced by a subsequent non-firm PTP request of equal duration and higher price.
- 001-4.23** A confirmed, non-firm PTP reservation for the next hour shall not be displaced within one hour of the start of the reservation by a subsequent non-firm PTP reservation request of longer duration.
- 001-4.24** A Transmission Provider shall accept any reservation request submitted for an unconstrained Path if the Customer's bid price is equal to or greater than the Transmission Provider's posted offer price at the time the request was queued, even if later requests are submitted at a higher price. This standard applies even when the first request is still unconfirmed, unless the Customer Confirmation Time Limit has expired for the first request.
- 001-4.25** Once an offer to provide non-firm PTP transmission service at a given price is extended to a Customer by the Transmission Provider, and while this first request is still unconfirmed but within the Customer Confirmation Time Limit, the Transmission Provider shall not preempt or otherwise alter the status of that first request on receipt of a subsequent request of the same Tier and equal duration at a higher price, unless the subsequent request is submitted as pre-confirmed.

001-4.26 If during a negotiation of service (i.e., prior to Customer confirmation) a subsequent pre-confirmed request for service over the same limited resource of equal duration but higher price is received, the Transmission Provider must COUNTEROFFER the price of service on the prior COUNTEROFFER or ACCEPTED price to match the competing offer, in order to give the first Customer an opportunity to match the offer. This practice must be implemented in a non-discriminatory manner.

001-4.27 Whenever a request or reservation is set to the state of Invalid, Refused, Declined, Superseded, Retracted, Annulled, or Displaced, the Transmission Provider or Seller shall enter the reason for the action in the SELLER_COMMENTS field.

001-5 **PROCUREMENT OF ANCILLARY AND OTHER SERVICES**

Introduction

Phase IA OASIS data templates allow the coupling of ancillary service arrangements with the purchase of transmission service for the purpose of simplifying the overall process for Customers. Transmission Providers must indicate (consistent with filed tariffs), which services are MANDATORY (must be taken from the Primary Transmission Provider), REQUIRED (must be provided for but may be procured from alternative sources), or OPTIONAL (not required as a condition of transmission service).

The Transmission Customer should make known to the Transmission Provider at the time of the reservation request certain options related to arrangement of ancillary services. The Transmission Customer may indicate:

- a. I will take all the MANDATORY and REQUIRED ancillary services from the Primary Transmission Provider
- b. I will take REQUIRED ancillary services from Third Party Seller X
- c.I would like to purchase OPTIONAL services
- d. I will self provide ancillary services
- e. I will arrange for ancillary services in the future
(prior to scheduling)

While these interactions are available in the most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems, there is a need to clarify the associated business practices. The standards in Section 5 apply to services defined in filed tariffs.

Transmission Provider Requirements

001-5.1 The Transmission Provider shall designate which ancillary services are MANDATORY, REQUIRED, or OPTIONAL for each offered transmission service or each transmission path to the extent these requirements can be determined in advance of the submittal of a reservation request on a specific Path by a Transmission Customer.

001-5.2 A Transmission Provider shall modify a Transmission Customer’s service request to indicate the Transmission Provider as the SELLER of any ancillary service, which is MANDATORY, to be taken from the Transmission Provider.

001-5.3 For REQUIRED and OPTIONAL services, the Transmission Provider shall not select a SELLER of ancillary service without the Transmission Customer first selecting that SELLER.

001-5.4 A Transmission Provider may accept a Transmission Customer's request for an ancillary service, which is not MANDATORY or REQUIRED, but shall indicate to the Transmission Customer at the time of acceptance in SELLER_COMMENTS that the service is not MANDATORY or REQUIRED.

Transmission Customer Requirements

001-5.5 The Transmission Customer shall indicate with the submittal of a transmission reservation request, the preferred options for provision of ancillary services, such as the desire to use an alternative resource. The Transmission Provider shall post itself as the default ancillary service provider, if a Transmission Customer fails to indicate a third party SELLER of ancillary services. However, the Transmission Customer may change this designation at a later date, so long as this change is made prior to the Transmission Provider's scheduling deadline.

001-5.6 A Transmission Customer may, but is not required to, indicate a third party SELLER of ancillary services, if these services are arranged by the Transmission Customer off the OASIS and if such arrangements are permitted by the Transmission Provider's tariff. The Transmission Provider shall post itself as the default ancillary service provider, if a Transmission Customer fails to indicate a third party SELLER of ancillary services. However, the Transmission Customer may change this designation at a later date, so long as this change is made prior to the Transmission Provider's scheduling deadline.

001-6 PATHNAMING STANDARDS

INTRODUCTION

The Data Element Dictionary of the most current version of the NAESB Standards and Communications Protocol for Open Access Same-Time Information Systems, defines a path name in terms of a 50-character alphanumeric string:

RR/TPTP/PATHPATHPATH/OPTIONALFROM-OPTIONALTOTO/SPR

RegionCode/TransmissionProviderCode/PathName/OptionalFrom-To(POR-POD)/Spare

This definition leaves it to the Transmission Providers to name the paths from their own perspective. The following standards provide an unambiguous convention for naming paths and will produce more consistent path names.

Transmission Provider Requirements

001-6.1 A transmission provider shall use the path naming convention defined in the S&CP Data Dictionary for the naming of all reservable paths posted on OASIS.

001-6.2 A transmission provider shall use the third field in the path name to indicate the sending and receiving control areas. The control areas shall be designated using standard NERC codes for the control areas, separated by a hyphen. For example, the first three fields of the path name will be:

RR/TPTP/CAXX-CAYY/

001-6.3 A transmission provider shall use the fourth field of the path name to indicate POR and POD separated by a hyphen. For example, a path with a specific POR/POD would be shown as:

RR/TPTP/CAXX-CAYY/PORPORPORPOR-PODPODPODPOD/

If the POR and POD are designated as control areas, then the fourth field may be left blank (as per the example in 9.2).

001-6.4 A transmission provider may designate a sub-level for Points of Receipt and Delivery. For example, a customer reserves a path to POD AAAA. The ultimate load may be indeterminate at the time. Later, the customer schedules energy to flow to a particular load that may be designated by the transmission provider as a sub-level Point of Delivery. This option is necessary to ensure certain transmission providers are not precluded from using more specific service points by the inclusion of the POR/POD in the path name. All sub-level PORs and PODs must be registered as such on <http://www.tsin.com>.

001-7 **NEXT HOUR MARKET SERVICE**

Introduction

The standards in this section apply to the offering of Next Hour Market (NHM) Service only. The FERC has designated this service as voluntary for a transmission provider to offer. Therefore the standards apply to a transmission provider only if that provider offers NHM Service, in which case the standards become mandatory for that provider.

Transmission Provider Requirements

001-7.1 Use of NHM Service shall be limited to interchange transactions having a duration of one clock-hour and requested no earlier than 60 minutes prior to the start time of the transaction.

001-7.2 A transmission provider offering NHM Service shall allow an eligible transmission customer to request a NHM Service reservation electronically using protocols compliant with the most current version of e-Tag Specification.

001-7.3 A transmission provider offering NHM Service shall allow a transmission customer to request NHM Service for one or more path segments of a tag by designating: (a) 0-NX as the transmission product code under the OASIS block and (b) BUYATMARKET as the OASIS reservation identifier.

001-7.4 A transmission provider offering NHM Service shall consider the submittal of a tag designating that provider on one or more path segments using NHM Service

to include a pre-confirmed request for the necessary transmission reservation and associated mandatory ancillary services for each designated path segment, for the hour indicated. No additional confirmation steps shall be required by the transmission customer for a NHM Service transmission reservation and associated ancillary services.

- 001-7.5** A transmission provider offering NHM Service shall consider setting the amount of the NHM Service reservation as:
- a. The amount of the Transmission Provider Product, if specified.
 - b. In accordance with the Transmission Provider's tariff, the MW amount at the POR or POD for that Provider in the Loss Table, if Transmission Provider Product is not specified.
 - c. The MW amount in the Energy Profile, if neither Transmission Provider Product amount nor Provider Loss Table amounts are specified.
- 001-7.6** The OASIS queue time of a NHM Service request or reservation shall be the transmission provider e-Tag approval service receipt time, unless a system failure requires the use of e-Tag backup procedures, in which case the OASIS queue time shall be the time the tag is received by the transmission provider.
- 001-7.7** The 0-NX designation in the tag assigns as transmission customer, for all NHM Service path segments in the transaction, the PSE that is designated as the Purchasing-Selling Entity (PSE) responsible for the tag. A PSE submitting a tag may not designate a NHM Service reservation for another PSE and a transmission provider may not assign a reservation to any transmission customer other than the PSE submitting the NHM Service tag.
- 001-7.8** When evaluating competing requests for transmission reservations, a transmission provider offering NHM Service shall consider the NHM Service to have a priority lower than Tier 5 – point-to-point service over secondary receipt and delivery points.
- 001-7.9** Once a tag becomes implemented in e-Tag, the transmission provider shall consider the associated NHM Service reservations to be confirmed. Since the NHM Service confirmed reservation(s) are by definition less than one hour prior to start, these reservations shall not be displaced by a subsequent non-firm reservation of higher priority.
- 001-7.10** The transmission customer shall be obligated to pay for the transmission service under the terms of the tariff at the posted offer price for non-firm hourly service, once the interchange transaction tag becomes implemented in e-Tag. In the event of a voluntary withdrawal or reduction in the amount or duration of the service by the transmission customer after the tag becomes implemented, the transmission customer shall remain obligated to pay for the full amount of the approved request. In the event of an involuntary curtailment or reduction of the service, initiated by the transmission provider or any other transmission provider, the transmission customer shall not be obligated to pay for any portions of the NHM Service that were involuntarily curtailed. In the case of involuntary curtailment or reduction, payment shall be based on a calculation of the MWhours actually used.

- 001-7.11** In the case that a transaction uses NHM Service for all required path segments in the tag, the default condition of the tag is NOT approved unless all required transmission providers and control areas indicate tag approval.
- 001-7.12** In the case that a transaction mixes one or more transaction path segments that use NHM Service with one or more path segments that use other types of transmission service, then 1) as long as the NHM Service path segment(s) are not fully approved, then the tag shall default to NOT approved; and 2) if all NHM Service path segments in the e-Tag are fully approved, then the tag shall revert to the normal default status as specified in NERC and/or NAESB Standards.
- 001-7.13** The transmission customer shall be required to submit a NHM Service transaction request prior to the tag submittal time limit as specified in NERC and/or NAESB Standards, and no earlier than 60 minutes prior to the start of the transaction.
- 001-7.14** The approval mechanism for a NHM Service reservation shall be the tag approval. If the tag is approved and has become implemented, all required NHM Service transmission reservations associated with that tag shall be considered confirmed reservations. If one or more transmission providers do NOT approve their segment(s) of the transaction, then the transaction shall be considered NOT approved. Each transmission provider designated in a tag that does not approve that segment of the tag shall indicate that the associated reservation for that segment is REFUSED. If a designated transmission provider in a NHM Service path segment approves the tag but the tag is not approved through the action or inaction of another transmission provider, then that transmission provider shall indicate that reservation is ANNULLED.
- 001-7.15** The transmission provider shall assign the reservation request and final disposition status on behalf of the transmission customer within one hour of the requested start of the NHM Service transaction, regardless of the ultimate disposition of the tag.
- 001-7.16** NHM Service shall have the lowest curtailment priority in the event that a curtailment or reduction of transfers is initiated. Specifically, NHM Service (0-NX) shall have a NERC Curtailment Priority of 0.
- 001-8** **REQUIREMENTS FOR DEALING WITH MULTIPLE, IDENTICAL TRANSMISSION SERVICE REQUESTS.**
- 001-8.1** DENIAL OF SERVICE
- OASIS system administrators or Transmission Providers shall have the right to institute programs for the detection and mitigation of Denial of Service (DoS) attacks based on recognized standard industry practices.
- 001-8.1.1** OASIS system administrators or Transmission Providers shall have the right to block a user's large volume or high frequency submission of transmission service requests that are syntactically invalid and/or do not constitute a valid, legitimate request for service under the terms of the Transmission Provider's tariff (i.e., cannot be queued by OASIS for evaluation by the Transmission

Provider) pursuant to the provisions in NAESB OASIS Business Practice Standard 1.5(d).

001-8.2 QUEUE FLOODING

OASIS system administrators or Transmission Providers shall have the right to invalidate the submission of additional **identical service requests** by a given Transmission Customer when the sum of the capacity requested in all preceding, pending, valid **identical service requests** for that Transmission Customer equals or exceeds the impacted transmission facilities' Total Transfer Capability at any point in time over the duration of such requests.

001-8.3 QUEUE HOARDING

OASIS system administrators or Transmission Providers shall have the right to institute processes and procedures to limit the ability of a given Transmission Customer to delay the timely processing of transmission requests submitted by other Transmission Customers. An example is shown in Appendix A.

001-8.3.1 When transmission service requests are queued for a limited transmission facility(ies) such that the Transmission Provider must wait for a given Transmission Customer to act on an accepted request for service prior to accepting or denying subsequent requests for service, the Transmission Provider shall have the right to deny and remove from consideration all subsequent **identical service requests** submitted by the same Transmission Customer should that Transmission Customer explicitly (i.e., withdraws their request) or implicitly (i.e., fails to confirm the request within the confirmation time limit) elect not to take service over the limited facility(ies).

001-8.3.2 Transmission Providers shall have the right to restrict the Customer Confirmation Time Limit, as established in Standard 4.13, in the event the confirmation time limit would extend beyond the Provider's established scheduling deadline. But in no event shall the TP impose such restrictions that would set the confirmation time limit to expire any earlier than 30 minutes before the pro forma scheduling deadline.

001-9 **REQUIREMENTS FOR DEALING WITH REDIRECTS ON A FIRM BASIS.**

001-9.1 The Transmission Customer (TC) shall have the right to request modifications to Points of Receipt and/or Points of Delivery (including source or sink, where required) on a firm basis for a Confirmed Point-to-Point Firm Transmission Service reservation (i.e., Parent Reservation). This will be referred to as a Redirect on a Firm basis.

001-9.1.1 The TC may Redirect on a Firm basis any confirmed Firm Point-to-Point Parent Reservation regardless of the request type. An example is shown in Appendix B.

001-9.1.2 A request to Redirect on a Firm basis shall be submitted to the primary Transmission Provider with a request type of REDIRECT.

- 001-9.1.3** A request to Redirect on a Firm basis shall be queued and evaluated in the same manner (i.e., same service priority) as any other Firm Point to Point request, subject to the other requirements of this standard.
- 001-9.1.4** No additional deposit shall be required for a request to Redirect on a Firm basis.
- 001-9.2** The TC shall be allowed to request a Redirect on a Firm basis for a portion or all of the Capacity Available to Redirect, even if the transmission scheduling rights on the Parent Reservation have been limited due to outages or other reliability-related events. An example is shown in Appendix B.
- 001-9.3** The TC shall be allowed to request a Redirect on a Firm basis for a portion or all of the time period of the Parent Reservation (i.e., bound by the start/stop times of the Parent Reservation). An example is shown in Appendix B.
- 001-9.3.1** A request for Redirect on a Firm basis must be submitted, and is subject to all request timing requirements consistent with a reservation for Firm service of similar duration.
- 001-9.3.2** A request for Redirect on a Firm basis must represent an established Firm Point-to-Point Service Increment (e.g., Daily, Monthly, etc.) offered by the Transmission Provider.
- 001-9.4** The TC's rights on the Parent Reservation shall remain unaffected during the Transmission Provider evaluation of the request to Redirect on a Firm basis. An example is shown in Appendix B.
- 001-9.4.1** If the request to Redirect on a Firm basis is denied for any reason, all rights and obligations shall remain per the Parent Reservation. An example is shown in Appendix B.
- 001-9.4.2** The TC shall be allowed to submit and have pending multiple requests for Redirects on a Firm basis against the same Capacity Available to Redirect. The TP shall evaluate each such request with the knowledge that only those requests up to the Capacity Available to Redirect may ultimately be confirmed.
- 001-9.4.3** If the TP determines that only a portion of the requested capacity can be accommodated, the TP shall extend to the TC that portion of the capacity (i.e., partial service) that can be accommodated through a COUNTEROFFER. An example is shown in Appendix B.
- 001-9.5** Upon confirmation of the request to Redirect on a Firm basis, the Capacity Available to Redirect shall be reduced by the amount of the redirected capacity granted for the time period of that Redirect. An example is shown in Appendix B.
- 001-9.5.1** The TC shall not confirm any request to Redirect on a Firm basis that would exceed the Capacity Available to Redirect at that point in time (i.e., at the time of attempted confirmation and over the time interval of the Redirect). The TP shall have the right to block any such confirmation.

- 001-9.5.2** The TC should withdraw any request to Redirect on a Firm basis that would exceed the Capacity Available to Redirect at that point in time (i.e., at the time of attempted confirmation and over the time interval of the Redirect). The TP shall have the right to withdraw their acceptance of any request to Redirect on a Firm basis that cannot be confirmed due to limitations in the Capacity Available to Redirect by setting the OASIS standard STATUS data element to the value of SUPERSEDED.
- 001-9.5.3** Redirects on a Firm basis shall have all the rights and obligations of an original reservation for Firm service (with the exception of renewal/roll-over rights), including the rights to be Redirected on a Firm and/or Non-Firm basis.
- 001-9.6** For the purposes of curtailment and other capacity reductions, confirmed Redirects on a Firm basis shall be treated comparably to all other types of Firm Point-to-Point Service.
- 001-9.6.1** Curtailments or other capacity reductions to the remaining portion of the reserved capacity on the Parent Reservation shall not affect the Redirect reservation.
- 001-9.6.2** Curtailments or other capacity reductions affecting the reserved capacity on the Redirect reservation shall not affect the Parent Reservation nor result in a reinstatement of capacity on the Parent Reservation.
- 001-9.7** Unless otherwise mutually agreed to by the primary provider and original customer, a request for Redirect on a Firm basis does not impact the TC's long term firm renewal rights (e.g., rollover or evergreen rights) on the original path, nor does it confer any renewal rights on the redirected path.
- 001-9.8** Any differences in charges associated with the Redirect on a Firm basis will be settled in accordance with the Transmission Provider's tariff.
- 001-9.8.1** If not addressed in the Transmission Provider's tariff or in a Service Agreement, any difference in charges associated with the Redirect on a Firm basis will be the responsibility of the TC submitting the Redirect.
- 001-10** **REQUIREMENTS FOR DEALING WITH REDIRECTS ON A NON-FIRM BASIS**
- 001-10.1** The Transmission Customer (TC) shall have the right to request an alternate, or secondary, Point of Receipt and/or Point of Delivery (including source and sink, if required) on a non-firm basis for a Confirmed Point-to-Point Firm Transmission Service reservation (i.e., Parent Reservation). This will be referred to as a Redirect on a Non-Firm basis.
- 001-10.1.1** The TC may Redirect on a Non-Firm basis any confirmed Firm Point-to-Point Parent Reservation regardless of the request type. An example is shown in Appendix B.
- 001-10.1.2** A request to Redirect on a Non-Firm basis shall be submitted to the primary Transmission Provider with a request type of REDIRECT.
- 001-10.1.3** RESERVED

- 001-10.1.4** Redirects on a Non-Firm basis shall have a service priority that is lower than non-firm hourly point-to-point service.
- 001-10.1.5** Requests for Redirects on a Non-Firm basis shall specify:
SERVICE INCREMENT=HOURLY
TS_CLASS=SECONDARY
TS_TYPE=POINT_TO_POINT
TS_PERIOD=FULL PERIOD
TS_WINDOW=FIXED
- 001-10.1.6** Requests for Redirects on a Non-Firm basis shall be submitted by the TC as pre-confirmed.
- 001-10.2** The TC shall be allowed to request a Redirect on a Non-Firm basis for a portion or all of the Capacity Available to Redirect, even if the transmission scheduling rights on the Parent Reservation have been limited due to outages or other reliability-related events. An example is shown in Appendix B.
- 001-10.3** The TC shall be allowed to request a Redirect on a Non-Firm basis for a portion or all of the time period of the Parent Reservation (i.e., bound by the start/stop times of the Parent Reservation). An example is shown in Appendix B.
- 001-10.3.1** A request for Redirect on a Non-firm basis must be submitted, and is subject to all request timing requirements consistent with reservations for Non-Firm Point-to-Point service of similar duration.
- 001-10.4** The TC's rights on the Parent Reservation shall remain unaffected during the Transmission Provider evaluation of the request to Redirect on a Non-Firm basis. An example is shown in Appendix B.
- 001-10.4.1** If the request to Redirect on a Non-Firm basis is denied for any reason, all rights and obligations shall remain per the Parent Reservation. An example is shown in Appendix B.
- 001-10.4.2** The TC shall be allowed to submit and have pending multiple requests for Redirects on a Non-Firm basis against the same Capacity Available to Redirect. The TP shall evaluate each such request with the knowledge that only those requests up to the Capacity Available to Redirect may ultimately be confirmed. An example is shown in Appendix B.
- 001-10.4.3** If the TP determines that only a portion of the requested capacity can be accommodated, the TP is not obligated to extend to the TC that portion of the capacity (i.e., partial service) that can be accommodated. An example is shown in Appendix B.
- 001-10.5** Upon confirmation of the request to Redirect on a Non-Firm basis, the Capacity Available to Redirect shall be reduced by the amount of the redirected capacity granted for the time period of that Redirect. An example is shown in Appendix B.
- 001-10.5.1** The TC shall not confirm any request to Redirect on a Non-Firm basis that would exceed the Capacity Available to Redirect at that point in time (i.e., at the time of

attempted confirmation and over the time interval of the Redirect). The TP shall have the right to block any such confirmation.

- 001-10.5.2** The TC should withdraw any request to Redirect on a Non-Firm basis that would exceed the Capacity Available to Redirect at that point in time (i.e., at the time of attempted confirmation and over the time interval of the Redirect). The TP shall have the right to withdraw their acceptance of any request to Redirect on a Non-Firm basis that cannot be confirmed due to limitations in the Capacity Available to Redirect by setting the OASIS standard STATUS data element to the value of SUPERSEDED. An example is shown in Appendix B.
- 001-10.5.3** The TC shall have the right to request the TP to release unscheduled capacity associated with a confirmed request to Redirect on a Non-Firm basis and reinstate that capacity to the Firm Parent Reservation. The TP shall honor all such valid requests, and reinstate the capacity on the Firm Parent Reservation.
- 001-10.5.3.1** The TC shall submit to the Transmission Provider (TP) a request to release with a request type of RELINQUISH.
- 001-10.5.3.2** Relinquish requests shall be submitted pre-confirmed.
- 001-10.5.3.2.1** The Relinquish request shall have the same TS_CLASS, TS_TYPE, TS_PERIOD, TS_WINDOW and SERVICE_INCREMENT values as the Redirect on a Non-Firm basis reservation being released.
- 001-10.5.3.3** The CAPACITY_REQUESTED shall be the value(s) desired to be relinquished from the Redirect on a Non-Firm basis reservation and added back to Capacity Available to Redirect on the Firm Parent Reservation.
- 001-10.5.3.4** The Relinquish request shall be bound by the start/stop times of the Firm Parent Reservation.
- 001-10.5.3.5** Relinquish requests may not be requested for past hours and must be within the bounds of the Redirect on a Non-Firm basis start/stop times.
- 001-10.5.3.6** The TP shall have the right to REFUSE the Relinquish request if the capacity requested for release is not available for the duration of the Relinquish request.
- 001-10.5.3.6.1** The TC shall be allowed to request a Relinquish even if the transmission scheduling rights on the Redirect on a Non-Firm basis have been limited due to outages or other reliability-related events. The TC shall ensure adjustment of the schedule/e-Tag's transmission allocation prior to submitting the Relinquish request.
- 001-10.5.3.7** The TC's rights on the Redirect on a Non-Firm basis and on the Firm Parent Reservation shall remain unaffected by the Relinquish during the TP evaluation of the Relinquish request.
- 001-10.5.3.8** Upon confirmation of the Relinquish request, the Capacity Available to Redirect on the Firm Parent Reservation shall be increased by the amount released and for the time period of the Relinquish request.

- 001-10.5.3.9** Upon confirmation of the Relinquish request, the capacity available on the Redirect on a Non-firm basis shall be decreased by the amount released and for the time period of the Relinquish request.
- 001-10.6** For the purposes of curtailment and other capacity reductions, confirmed Redirects on a Non-Firm (Secondary) basis shall have a lower priority than any Non-Firm Point-to-Point Transmission Service.
- 001-10.6.1** Curtailments or other capacity reductions to the remaining portion of the reserved capacity on the Parent Reservation shall not affect the Redirect reservation.
- 001-10.7** Any differences in charges associated with a Redirect on a Non-Firm basis will be settled in accordance with the Transmission Provider's tariff.
- 001-10.7.1** Unless otherwise provided for in the TP's tariff, there shall be no charge to Redirect on a Non-Firm basis.
- 001-10.8** TPs shall have the right, but are in no means obligated, to accept requests for Redirect on a Non-Firm basis based on the submission of an Electronic Tag (e-Tag) using protocols compliant with Version 1.7.095 NERC Transaction Information System Working Group (TISWG) *Electronic Tagging Functional Specification*.
- 001-10.8.1** The TC submitting a Redirect on a Non-Firm basis via a tag shall be subject to the same transaction timing requirements specified for submission of such requests directly on OASIS.
- 001-10.8.2** A TP accepting Redirects on a Non-Firm basis via e-Tag shall allow a TC to request redirected service for one or more path segments of the tag by designating:
- (a) 1-NS as the transmission product code under the OASIS block,
 - (b) the OASIS reservation identifier of the Firm Parent Reservation to be redirected, and
 - (c) the secondary points of receipt and delivery being requested.
- 001-10.8.3** A TP accepting Redirects on a Non-Firm basis via e-Tag shall determine the amount of the redirect request from:
- (a) The amount of the TP Product.
 - (b) If the TP Product is not specified, the MW amount at the POR or POD for that TP in the Loss Table in accordance with the TP's tariff.
 - (c) If neither TP Product amount nor Provider Loss Table amounts are specified, the MW amount in the Energy Profile.
- 001-10.8.4** A TP accepting Redirects on a Non-Firm basis via e-Tag shall consider the e-Tag as a pre-confirmed Redirect request on a Non-Firm basis that is to be processed on a comparable basis with all such requests made directly on OASIS, with all obligations associated with such a request to be borne by the TC holding the Parent Reservation (e.g., any ancillary services, charges or credits for redirect, etc.), and subject to all other requirements of this Standard.

001-10.8.5 The OASIS queue time of a Redirect requested via e-Tag shall be the TP's e-Tag Approval Service receipt time, unless a system failure requires the use of backup procedures, in which case the OASIS queue time shall be the time the e-Tag is received by the TP.

001-10.8.6 Once an e-Tag designating 1-NS service becomes Implemented, the TP shall consider the associated Redirect request(s) to be confirmed. Prior to or coincident with the tag becoming Implemented, the TP shall post the Redirect on OASIS.

001-10.8.7 If the e-Tag is terminated prior to its original stop time, the TP shall consider this equivalent to a release request by the TC and reinstate capacity on the Parent Reservation.

001-11 **RESALES**

Any Transmission Customer (Reseller) shall have the right to offer for sale the scheduling rights associated with the points of delivery and receipt of a Firm or Non-Firm Point-To-Point Transmission Service reservation (i.e. Parent Reservation). Any Eligible Customer (Assignee) may request to purchase scheduling rights from the Reseller.

001-11.1 **RIGHTS CONVEYED**

The confirmation of a Resale shall convey the rights to schedule Point-To-Point Transmission Service from the Reseller to the Assignee, but shall also convey any outstanding conditions that may exist on the Parent Reservation (such as conditional approval pursuant to Section 13.2(ii) of the OATT).

001-11.1.1 Upon confirmation of a Resale on OASIS, the Reseller shall lose those conveyed scheduling rights for the time frame and in the amount of the Resale.

001-11.1.2 If the Transmission Provider (TP) determines the Reseller is not the legitimate owner of the reserved capacity in the Parent Reservation(s), the TP has the right to nullify the Resale.

001-11.1.3 The Assignee shall be obligated directly to the TP for all arrangements required for scheduling transactions on the TP's system, including submission of schedules, provision for losses, etc.

001-11.1.4 Renewal rights, if any, are not conveyed in a Resale.

001-11.1.5 The Assignee shall have the right to resell rights acquired through a Resale in accordance with these standards subject to Standard WEQ-001-11.7.

001-11.1.6 The Assignee shall have the right to Redirect rights acquired through a Resale in accordance with these standards subject to Standard WEQ-001-11.6 and OASIS Business Practice Standards 9 and 10 (Redirects).

001-11.1.7 The Assignee must execute a service agreement with the Transmission Provider that will govern the provision of reassigned service no later than twenty-four hours prior to the scheduling deadline applicable for the

commencement of the reassigned service. The Transmission Provider may establish a blanket service agreement to include Resale transactions.

001-11.2 FINANCIAL OBLIGATIONS

Resales shall not affect the Financially Obligated Transmission Customer's (FOTC) financial obligations to the TP or any other terms of service under the tariff with respect to fixed reservation-based charges. The TP shall collect from the Assignee the agreed upon Resale transaction charges as posted on OASIS and credit that amount to the Reseller.

001-11.2.1 The Assignee shall be obligated directly to the TP for any usage-based charges and overuse penalties resulting from its subsequent use of the Resale.

001-11.2.1.1 RESERVED

001-11.2.2 The TP may annul the Resale in absence of an executed agreement as specified in Standard WEQ-001-11.1.7.

001-11.3 SERVICE ATTRIBUTES AND TIMING

A Resale shall retain all the same transmission service attributes, transmission service priority, and points of delivery and receipt of the Parent Reservation. For example, if one hour of a Monthly Firm reservation is Resold, the Resale reservation shall be a Monthly Firm Resale reservation lasting one hour.

001-11.3.1 The TP's OASIS shall not impose any restrictions regarding the timing of a Resale, either submission times or service duration, except that the start and stop times of the Resale must be within the bounds of the Parent Reservation(s) that are designated as supporting the Resale.

001-11.3.2 The Reseller shall have the right to aggregate multiple reservations into a single Resale provided that each reservation being aggregated is of exactly the same service attribute, priority, product and point of receipt/point of delivery.

001-11.3.3 A Resale must be in whole hours, beginning at the top of the hour, and within the start and stop time(s) of the Parent Reservation(s).

001-11.3.4 Service arranged through a Redirect on a non-firm basis (i.e., secondary service) cannot be resold.

001-11.4 QUANTITY

A Resale must be in whole MWs and equal to or less than the Granted Capacity of the Parent Reservation(s), less any reductions (e.g. confirmed Redirects, previous Resales, curtailments, or implemented schedules) to the capacity available for scheduling of that Parent Reservation.

001-11.5 POSTING ON OASIS

All Resales shall be posted on OASIS.

001-11.5.1 A Resale may be arranged between the Assignee and Reseller on OASIS, in accordance with the OASIS Standards and Communication Protocols (S&CP) for “Secondary Sales – On OASIS.”

001-11.5.2 If the Resale is not conducted on OASIS, the Reseller must notify the TP of the Resale via the OASIS, in accordance with the OASIS S&CP for “Secondary Sales – Off OASIS.” This posting should be made as soon as practicable, but in any case prior to the Assignee’s exercising of any rights under the Resale.

001-11.5.3 All resales must include the price of the Resale. Price units shall always be \$/MW – Hour reserved.

001-11.6 REDIRECT OF A RESALE

The Assignee shall have the right to Redirect firm rights acquired through a Resale. Any such request shall be submitted directly to the TP and will be queued and evaluated in the same manner as any other Redirect. (Subject to any limitations otherwise identified in these standards).

001-11.6.1 The Assignee shall be obligated directly to the TP for any charges or credits resulting from any Redirect on a firm basis.

001-11.6.2 Prior to accepting a Redirect request on a firm basis from the Assignee, the TP shall have the right to require that the Assignee execute a Transmission Service Agreement.

001-11.6.3 The TP may reject or annul a Redirect of a Resale in absence of an executed agreement as specified in Standard WEQ-001-11.1.7

001-11.7 DISPLACEMENT OF A RESALE

In the event a Transmission Provider’s Tariff requires that a higher priority, competing transmission service request must displace all or a portion of a confirmed lower priority reservation, the TP shall have the right to nullify any Resales that reference the displaced reservation as their Parent.

001-11.7.1 Once the conditional window on the Parent Reservation has closed, Resales for firm service are not subject to displacement in accordance with Standard WEQ-001-11.

001-12 **TRANSFERS**

Subject to the limitations below, a Financially Obligated Transmission Customer (FOTC or Reseller) shall have the right to Transfer all of their rights and obligations under an existing, confirmed Firm or Non-Firm Monthly or Yearly Point-To-Point Transmission Service reservation (i.e. Parent Reservation) to another Transmission Customer (Assignee). Such Transfer may be for all or a portion of the capacity of that reservation. Resales may not be Transferred.

001-12.1 RIGHTS CONVEYED

The confirmation of a Transfer of transmission rights shall convey all rights and obligations under the Transmission Provider's tariff from the Reseller to the Assignee, including the financial obligation to the TP.

001-12.1.1 Prior to the confirmation of a Transfer, the prospective Assignee and TP shall have executed a Transmission Service Agreement.

001-12.1.2 The Transfer must be agreed to by the FOTC, the Assignee, and the TP. The conveyance of Transfer rights is not complete until the TP approves the Transfer. The Transmission Provider shall not unduly withhold such approval.

001-12.1.3 Upon confirmation of the Transfer on OASIS, the FOTC (Reseller) shall lose those conveyed rights for the time frame and in the amount of the Transfer.

001-12.1.4 The Assignee shall be obligated directly to the TP for all arrangements required for scheduling transactions on the TP's system, including submission of schedules, provision for losses, etc.

001-12.1.5 If the Transfer is for long-term firm service, any renewal rights held by the Parent Reservation, including all limitations to those renewal rights, shall be conveyed from the Reseller to the Assignee on the path and in the amount transferred.

001-12.1.6 The Assignee of a Transfer shall have the same rights to Redirect, Resell, Renew, etc. the Transfer as the Reseller previously had with respect to the Parent Reservation being transferred.

001-12.2 FINANCIAL OBLIGATIONS

Upon confirmation of the Transfer on OASIS, the Reseller is released from the financial obligation to the TP for the capacity granted over the time period of that Transfer and those financial obligations are conveyed to the Assignee.

001-12.3 SERVICE ATTRIBUTES AND TIMING

Transfers shall retain all the same transmission service attributes, transmission service priority, and points of delivery and receipt of the Parent Reservation.

001-12.3.1 The start time of the Transfer may occur at any point during the period of service of the Parent Reservation, but must begin at the top of an hour unless the TP requires the transfer to occur at the top of the next settlement interval.

001-12.3.2 The stop time of the Transfer must coincide with the stop time of the Parent Reservation.

001-12.4 QUANTITY

A Transfer must be in whole MW's and equal to or less than the capacity of the Parent Reservation subject to the following:

- 001-12.4.1** Partial Transfers in an amount less than the full capacity granted of the Parent Reservation shall be limited to the granted capacity of the Parent Reservation less any reductions (e.g. confirmed Redirects, previous Resales) to the capacity available for scheduling of that Parent Reservation. In other words, only the capacity available for scheduling may be Transferred in a Partial Transfer.
- 001-12.4.2** Full Transfers for the entire capacity granted of the Parent Reservation shall result in the Transfer of all capacity of the Parent Reservation and the Transfer of all encumbrances associated with that capacity in the form of confirmed Redirects, Resales, or any other reductions in reserved capacity.
- 001-12.4.2.1** Full Transfer of a Parent Reservation which has been redirected, in whole or in part, will automatically result in the Transfer of the child(ren) Redirect(s).
- 001-12.4.2.2** Full Transfer of a Parent Reservation which has been resold through a Resale, in whole or in part, will automatically result in the Transfer of the child(ren) Resale(s).
- 001-12.4.2.3** The amount (MW's) of the full Transfer will include capacity which is not available for scheduling due to curtailment or other reduction, if any.
- 001-12.5** POSTING ON OASIS
- All Transfers shall be posted on OASIS.
- 001-12.5.1** Notwithstanding negotiations between the Assignee and the FOTC (Reseller), which may be conducted off OASIS, Transfers must be posted and approved by all parties on OASIS, in accordance with the OASIS S&CP.
- 001-12.5.2** The FOTC (Reseller) shall identify on OASIS those existing transmission service rights that are to be conveyed to the Assignee subject to the review and approval by the TP.

001-A APPENDIX A – STANDARD 8 EXAMPLES

QUEUE HOARDING (See Standard WEQ-001-8.3)

The following example assumes that the Transmission Provider made an assessment of their Firm ATC on path IN-OUT in response to ABC’s submission of a reservation request at 08:12:01. The TP determined the Firm ATC to be 30 MW for 8/5/2004, which is sufficient to satisfy the first queued request. Following this evaluation, the TP accepts the first queued request from ABC at 11:30. The TP delays acting on the next request from LMN since whether it is counteroffered with “interim partial service” or accepted in total until the disposition of ABC’s request is determined. For this example, the TPs reservation queue at 11:30 on 8/2/2004 is shown in the following table.

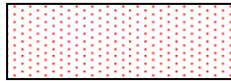
CUSTOMER CODE	CUSTOMER DUNS	SERVICE_INCREMENT	TS CLASS	START TIME	STOP TIME	POR	POD	PATH	MW	STATUS	QUEUE TIME
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	20	ACCEPTED	2004-08-02 08:12:01CS
LMN	567890123	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	15	QUEUED	2004-08-02 08:23:10CS
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	10	QUEUED	2004-08-02 08:45:06CS
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	10	QUEUED	2004-08-02 09:00:33CS
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	10	QUEUED	2004-08-02 10:01:16CS
XYZ	987654321	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	5	QUEUED	2004-08-02 10:57:41CS
LMN	567890123	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	15	QUEUED	2004-08-02 08:23:10CS

The Standard Customer Confirmation Time Limit for ABC is 24 hours, and the TP may retract their acceptance of ABC’s request on expiration of this confirmation time limit. Standard Requirement 8.3.2 also gives the TP the right to remove from consideration (deny using STATUS of INVALID) all **identical service requests** from ABC should ABC elect to not confirm their first accepted request. Assuming ABC takes no action on their first accepted request, the following table shows the results of exercising Requirement 8.3.2. To prevent the subsequent requests from ABC delaying the TP acting on other Customer requests from LMN and XYZ for another 24 hour confirmation time limit, the TP removes ABC’s requests from the queue since they already had the option to purchase 20 MWs of capacity and elected not to do so. The first LMN and XYZ requests are accepted, but again the second LMN request cannot be acted upon until the disposition of these two accepted requests is determined.

CUSTOMER CODE	CUSTOMER DUNS	SERVICE INCREMENT	TS CLASS	START TIME	STOP TIME	POR	POD	PATH	MW	STATUS	QUEUE TIME
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	20	RETRACTED	2004-08-02 08:12:01CS
LMN	567890123	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	15	ACCEPTED	2004-08-02 08:23:10CS
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	10	INVALID	2004-08-02 08:45:06CS
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	10	INVALID	2004-08-02 09:00:33CS
ABC	123456789	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	10	INVALID	2004-08-02 10:01:16CS
XYZ	987654321	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	5	ACCEPTED	2004-08-02 10:57:41CS
LMN	567890123	DAILY	FIRM	2004-08-05 00:00:00 CS	2004-08-06 00:00:00 CS	IN	OUT	IN-OUT	15	QUEUED	2004-08-02 08:23:10CS

001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES

Notes for Examples: In all cases a Parent Reservation to be Redirected must be Firm Point-to-Point. Unless noted otherwise, example Redirect requests may be on either a firm or non-firm basis. Capacity that is shaded (dotted) shows Parent Capacity Available to Redirect. Capacity in Gray is not available to Redirect. Requests that are cross-hatched are outside the bounds of the Parent Reservation.



Parent Capacity Available to Redirect



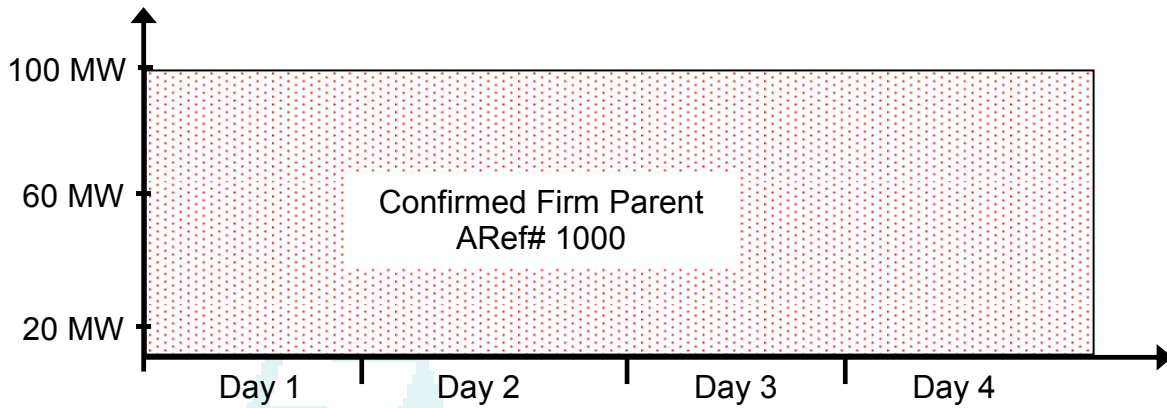
Parent Capacity Unavailable to Redirect



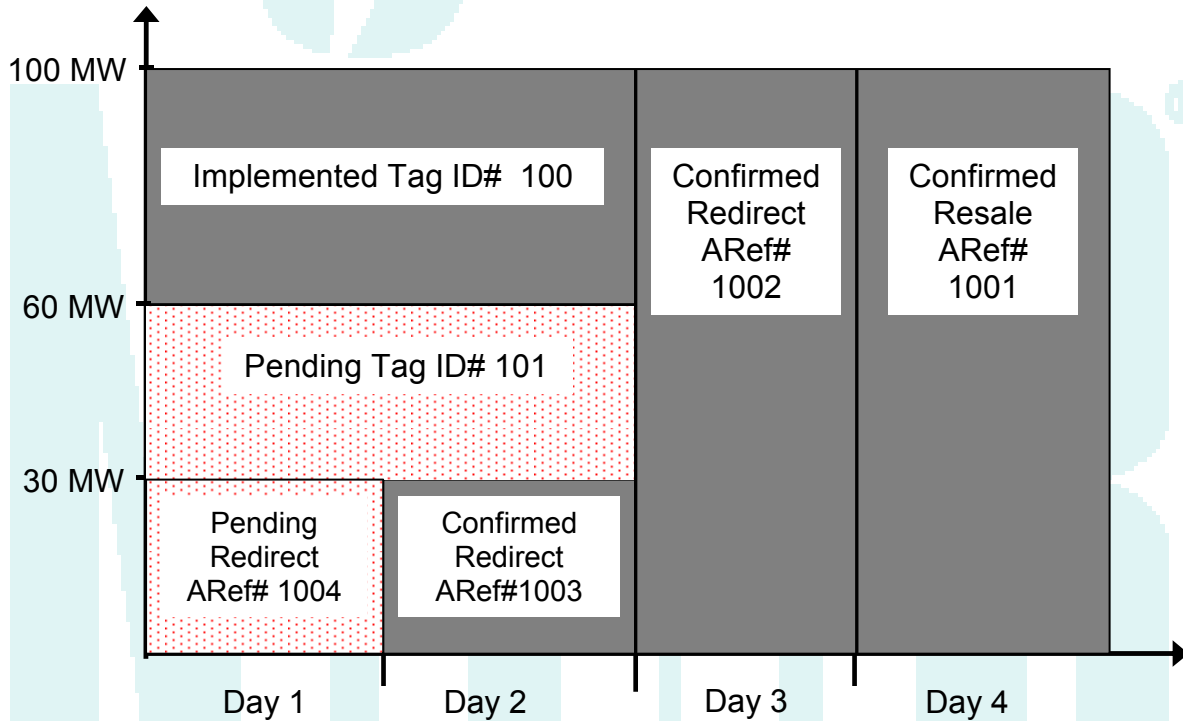
Requested Capacity outside the bounds of the Parent Reservation



001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



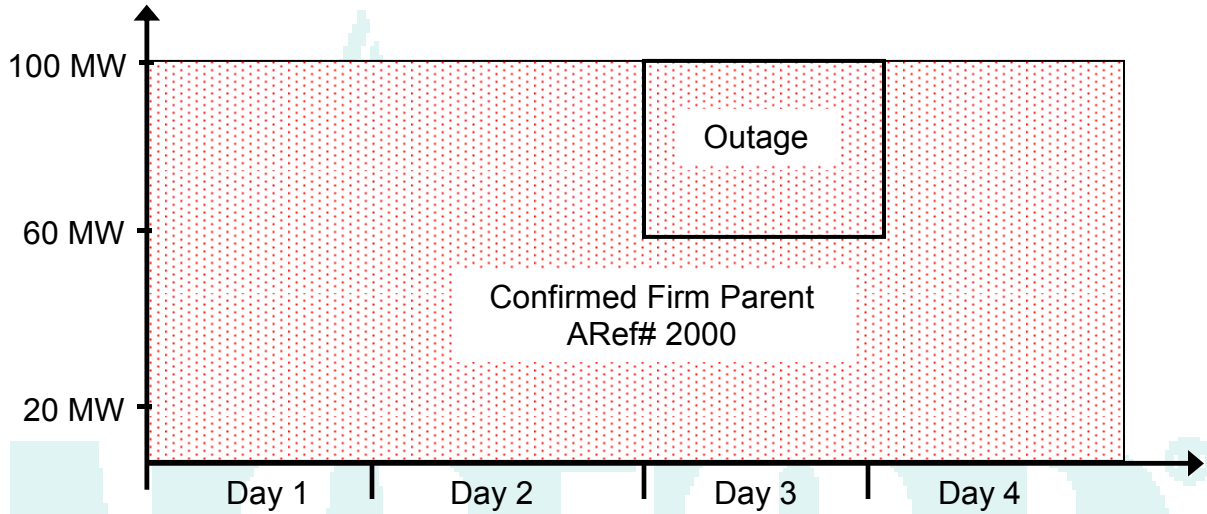
Example 1: Parent Reservation



Example 1: Parent Capacity Available to Redirect after various Events

Example 1 – Capacity Available to Redirect against Parent ARef# 1000 would be 60 MW for day one, 30 MW for day two and zero MW for days 3 and 4. See Standards WEQ-001-9.4, WEQ-001-9.5, WEQ-001-10.4 and WEQ-001-10.5 and definition of Capacity Available to Redirect.

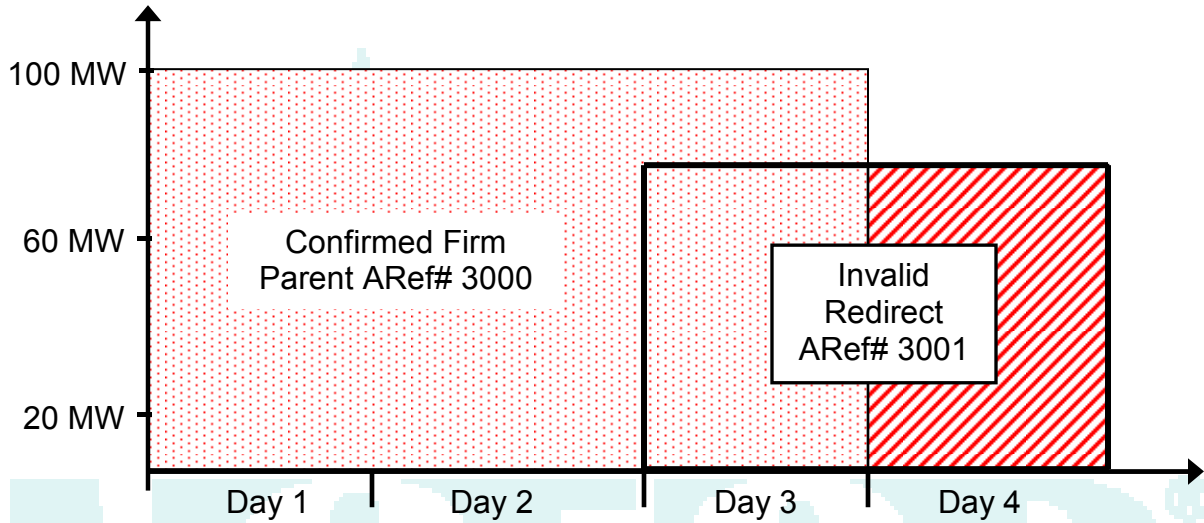
001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



Example 2: Parent Capacity Available to Redirect Not Affected by Outage

Example 2 – The Capacity Available to Redirect is unaffected by the outage. The Capacity Available to Redirect against Parent ARef# 2000 would be 100 MW's for all four days. See Standards WEQ-001-9.2 and WEQ-001-10.2.

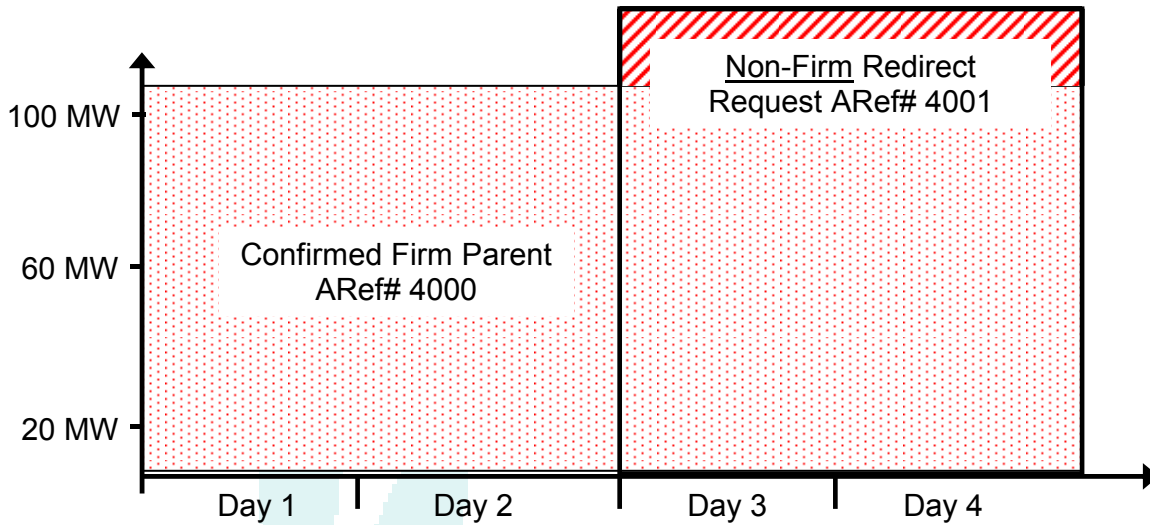
001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



Example 3: Redirect Request with Invalid Time Period

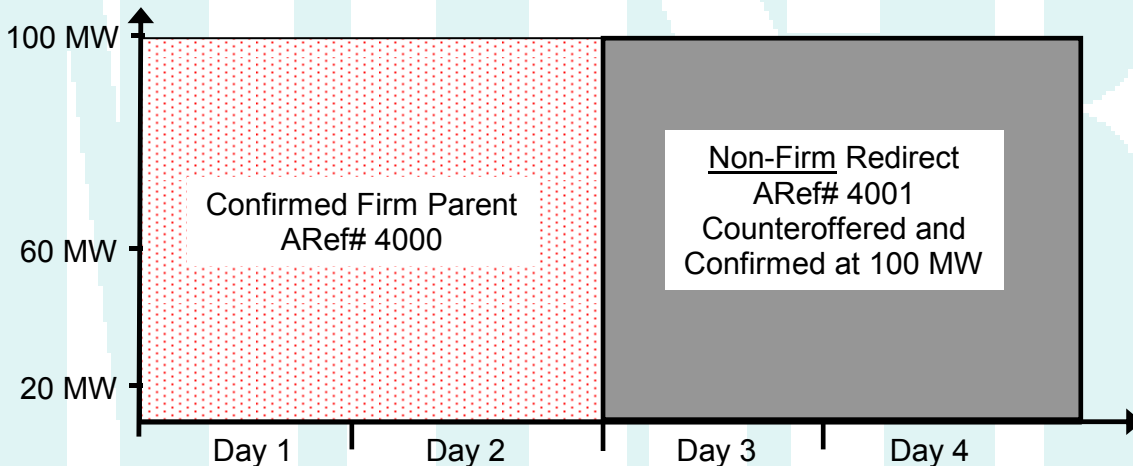
Example 3 – The TP must deny Request 3001 because the time period is invalid (i.e. extends past the time period of the Parent Reservation). The Capacity Available to Redirect on the Parent Reservation remains at 100 MW for the duration of the reservation. See Standards WEQ-001-9.3, WEQ-001-9.4.1, WEQ-001-10.3 and WEQ-001-10.4.1.

001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



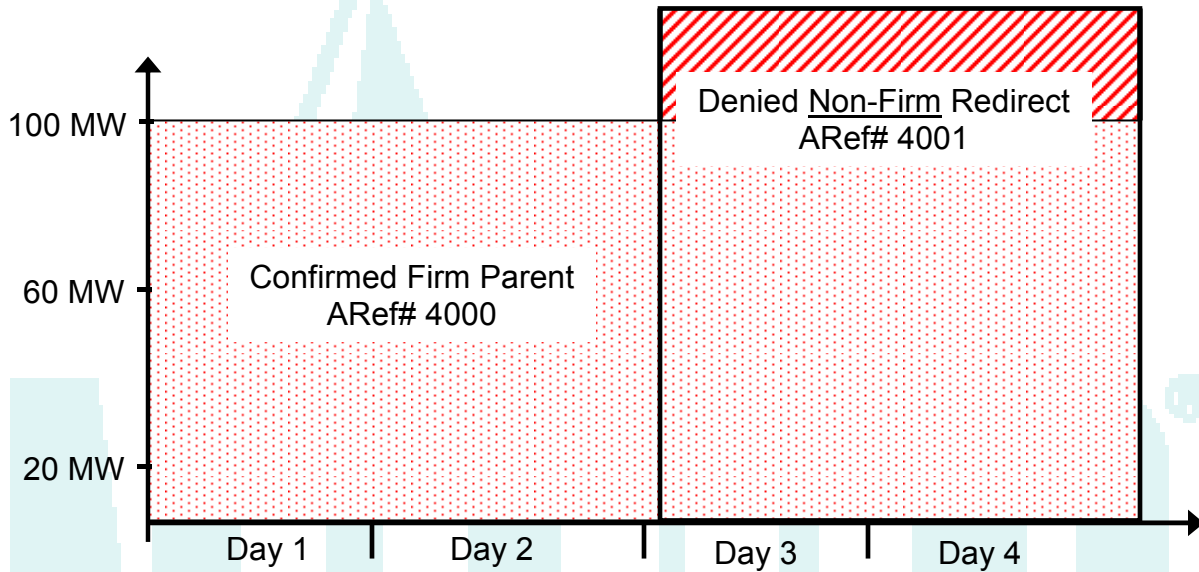
Example 4: Non-Firm Redirect with Capacity Requested exceeding Capacity Available to Redirect on Parent Reservation.

Example 4 – With a Non-Firm Redirect Request where the capacity requested exceeds the Capacity Available to Redirect of the Parent, if ATC is available, the TP may Counteroffer ARef# 4001 at 100 MW (See Example 4a) or deny ARef# 4001 (See Example 4b). In 4a, assuming the customer confirmed the Counteroffer, the Capacity Available to Redirect on Parent Reservation ARef# 4000 would be 100 MW for the first two days and zero for days 3 and 4. See Standards WEQ-001-10.4 and WEQ-001-10.5.



Example 4a: Non-Firm Redirect with Optional Counteroffer.

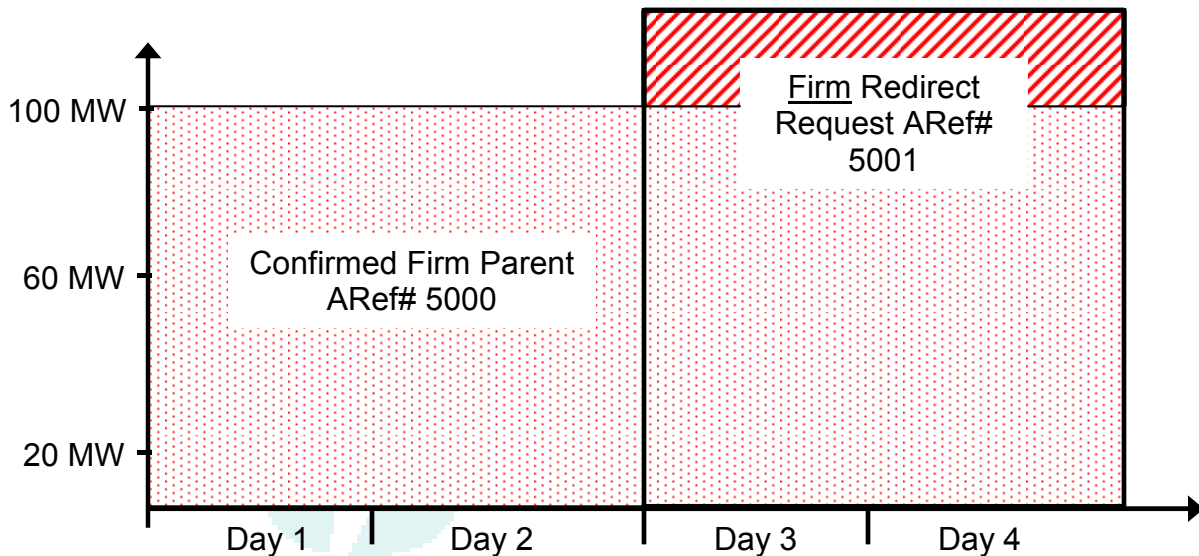
001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



Example 4b: Non-Firm Redirect with Optional Deny.

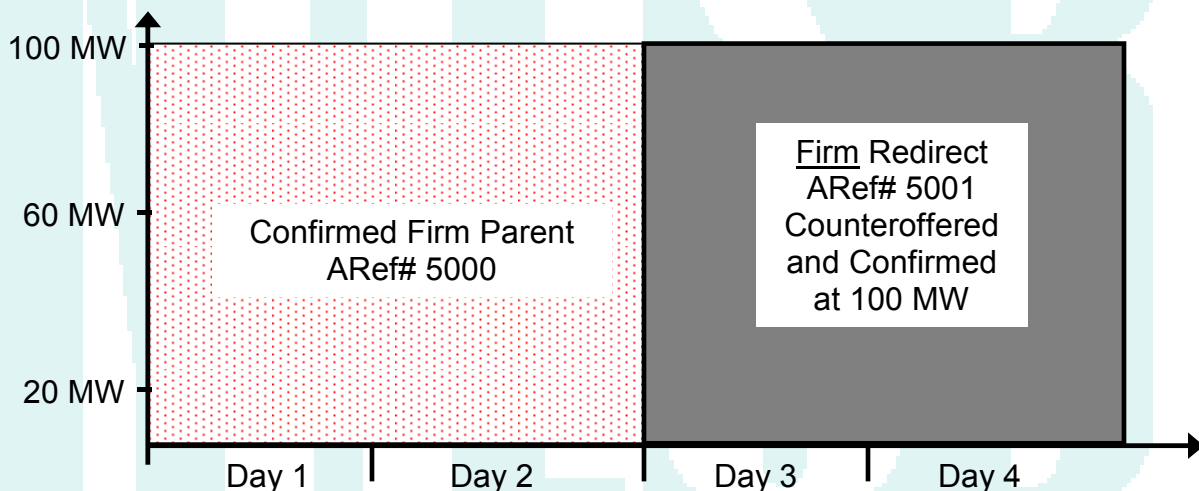
Example 4b – In this scenario, the TP denied the Non-Firm Redirect ARef# 4001. The Capacity Available to Redirect on Parent Reservation ARef# 4000 remains 100 MW for all four days. The TP could also Counteroffer Request 4001 at 100 MW (See Example 4a). See Standard WEQ-001-10.4.3.

001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



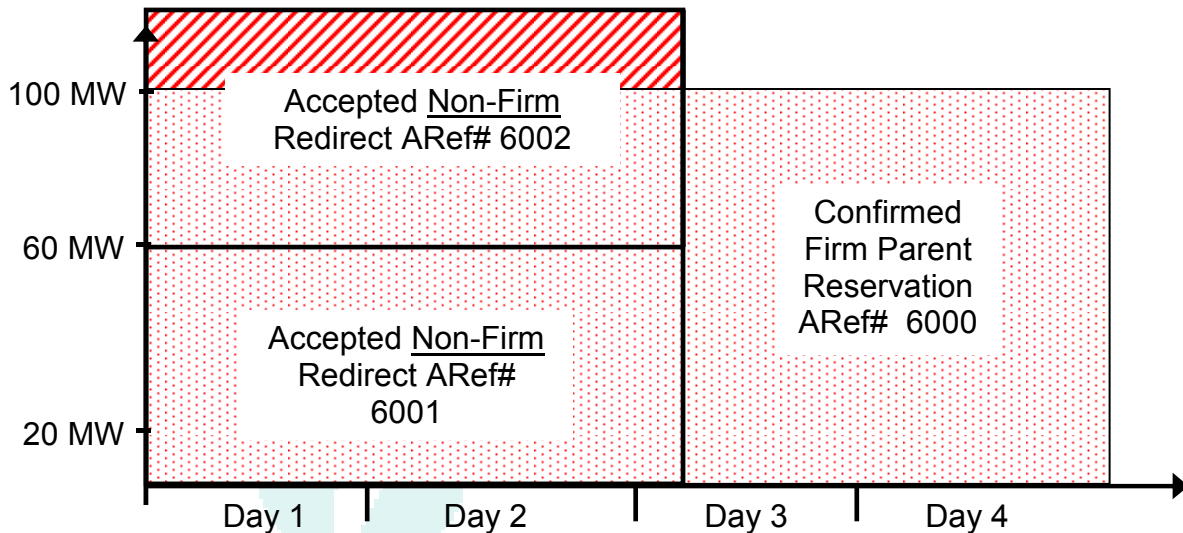
Example 5: Firm Redirect with Capacity Requested exceeding Capacity Available to Redirect on Parent Reservation.

Example 5 - With a Firm Redirect Request where the capacity requested exceeds the Capacity Available to Redirect of the Parent, assuming ATC is available, the TP must Counteroffer ARef# 5001 at 100 MW. Assuming also that the customer confirmed the Counteroffer, the Capacity Available to Redirect on Parent Reservation ARef# 5000 would be 100 MW for the first two days and zero for days 3 and 4. See Standard WEQ-001-9.4.3.

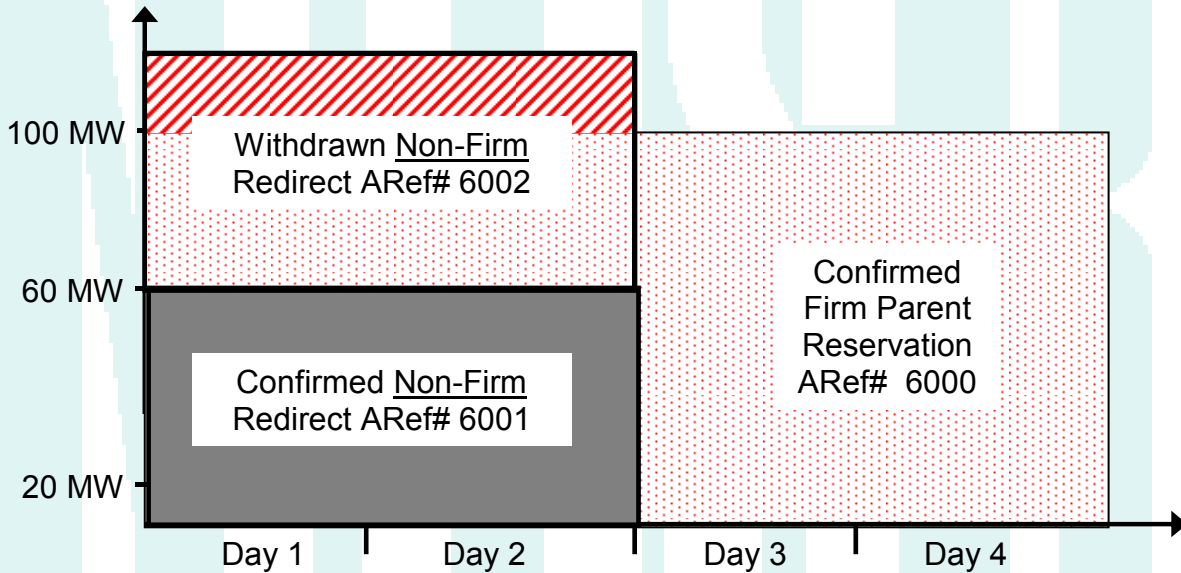


Example 5: Firm Redirect with Counteroffer

001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)

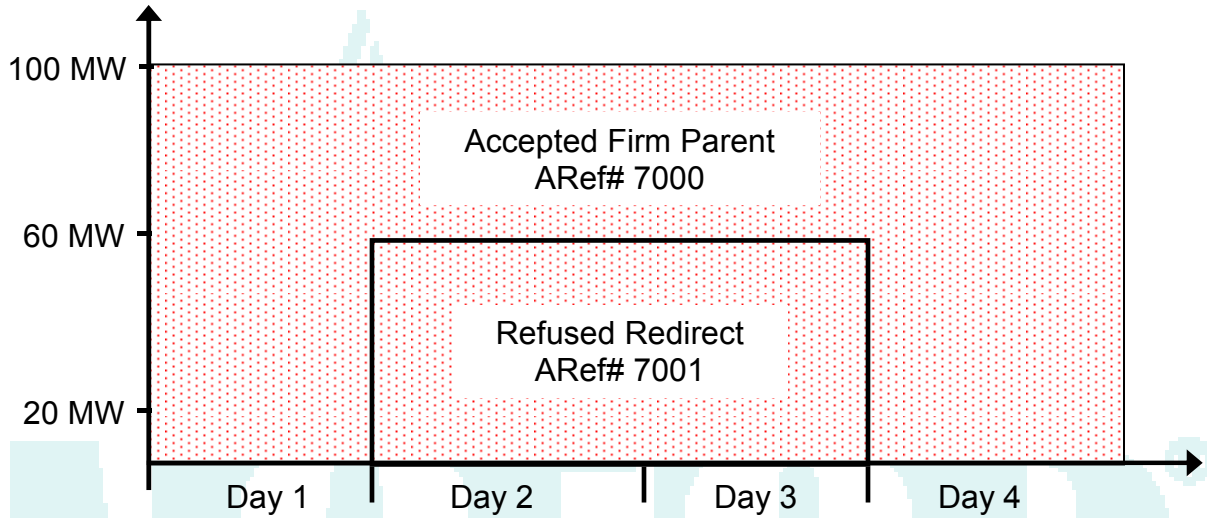


Example 6 – Multiple requests for Firm or Non-Firm Redirects may be pending against the same Capacity Available to Redirect. Once Request 6001 is Confirmed, Non-Firm ARef#6002 may be Refused by the TP or Withdrawn by the Customer. The Capacity Available to Redirect on ARef# 6000 is 40 MW for days 1 and 2. (The TP could also Counteroffer non-firm ARef# 6002. This scenario is not shown). See Standards WEQ-001-10.4.2, WEQ-001-10.5 and WEQ-001-10.5.2.



Example 6: Multiple Requests against same Capacity

001-B APPENDIX B – REDIRECT STANDARDS EXAMPLES (CONTINUED)



Example 7: Redirect Parent Reservation must be Confirmed

Example 7 – The Customer may only Redirect against capacity of a reservation that is in a Confirmed State. ARef# 7001 would be Refused and the Capacity Available to Redirect against Parent ARef# 7000 would be zero MW's for all four days because the reservation is not Confirmed. See Standards WEQ-001-9.1.1 and WEQ-001-10.1.1.

Business Practices for Open Access Same-Time Information Systems (OASIS) Standards & Communication Protocols, Version 1.4

Introduction

Definition of Terms

The following definitions are offered to clarify discussions of the OASIS in this document.

- 002-0.1** **Open Access Same-Time Information System (OASIS)** - comprises the computer systems and associated communications facilities that public utilities are required to provide for the purpose of making available to all transmission users comparable interactions with TS Information.
- 002-0.2** **Open Access Same-Time Information System Node (OASIS Node)** - is a subsystem of the OASIS. It is one computer system in the (OASIS) that provides access to TS Information to a Transmission Customer.
- 002-0.3** **Secondary Transmission Provider (ST, Reseller, or Secondary Provider)** - is any Customer who offers to sell transmission capacity it has purchased. (Consistent with the definition of WEQ-001-0.10).
- 002-0.4** **Transmission Customer (TC or Customer)** - is any eligible Customer (or its designated agent) that can or does execute a transmission service agreement or can or does receive transmission service. (Consistent with the definition in WEQ-001-0.12).
- 002-0.5** **Transmission Provider (TP or Primary Provider)** - is the public utility (or its designated agent) that owns, operates or controls facilities used for the transmission of electric energy in interstate commerce. (Consistent with the definition in WEQ-001-0.11).
- 002-0.6** **Transmission Services Information (TS Information)** - is transmission and ancillary services information that must be made available by public utilities on a non-discriminatory basis to meet the regulatory requirements of transmission open access.
- 002-0.7** **Transmission Services Information Provider (TSIP)** - is a Transmission Provider or an agent to whom the Transmission Provider has delegated the responsibility of meeting any of the requirements associated with OASIS. (Consistent with the definition of Responsible Party in WEQ-001-0.9).
- 002-0.8** **Value-Added Transmission Services Information Provider (VTSIP)** - is an entity who uses TS Information in the same manner as a Customer and provides value-added information services to its Customers.

Business Practice Requirements

002-1 RESERVED

002-1.1 RESERVED

002-2 **NETWORK ARCHITECTURE REQUIREMENTS**

002-2.1 ARCHITECTURE OF OASIS NODES

a. Permit Use of Any OASIS Node Computers

TSIPs shall be permitted to use any computer systems as an OASIS Node, so long as they meet the OASIS requirements.

b. Permit Use of Any Customer Computers

OASIS Nodes shall permit the use by Customers of any commonly available computer systems, as long as they support the required communication links to the Internet.

c. Permit the Offering of Value-Added Services

TSIPs are required, upon request, to provide their Customers the use of private network connections on a cost recovery basis. Additional services that are beyond the scope of the minimum OASIS requirements are also permitted. When provided, these private connections and additional services shall be offered on a fair and non-discriminatory basis to all Customers who might choose to use these services.

d. Permit Use of Existing Communications Facilities

In implementing the OASIS, the use of existing communications facilities shall be permitted. The use of OASIS communication facilities for the exchange of information beyond that required for open transmission access (e.g., transfer of system security or operations data between regional control centers) shall also be permitted, provided that such use does not negatively impact the exchange of open transmission access data and is consistent with the applicable Standards of Conduct regulations.

e. Single or Multiple Providers per Node

An OASIS Node may support a single individual Primary Provider (plus any Secondary Providers) or may support many Primary Providers.

002-2.2 INTERNET-BASED OASIS NETWORK

a. Internet Compatibility

All OASIS Nodes shall support the use of internet tools, internet directory services, and internet communication protocols necessary to support the Information Access requirements stated in Section 3.

b. Connection through the Public Internet

Connection of OASIS Nodes to the public Internet is required so that Users may access them through Internet links. This connection shall be made through a firewall to improve security.

c. Connection to a Private Internet Network

OASIS Nodes shall support private connections to any OASIS User (User) who requests such a connection. The TSIP is permitted to charge the User, based on cost, for these connections. The same internet tools shall be required for these private networks as are required for the public Internet. Private connections must be provided to all users on a fair and nondiscriminatory basis.

d. Internet Communications Channel

The OASIS Nodes shall utilize a communication channel to the Internet which is adequate to support the performance requirements given the number of Users subscribed to the Providers on the Node (see Section 5.3).

002-2.3 COMMUNICATION STANDARDS REQUIRED

a. Point-to-Point Protocol (PPP) and Internet Protocol Control Protocol (IPCP)

Point-to-Point Protocol (PPP) and Internet Protocol Control Protocol (IPCP) (reference RFCs 1331 and 1332) shall be supported for private internet network dial-up connections.

b. Serial Line Internet Protocol (SLIP)

Serial Line Internet Protocol (SLIP) (reference RFC 1055) shall be supported for private internet network dial-up connections.

c. Transport Control Protocol and Internet Protocol (TCP/IP)

Transport Control Protocol and Internet Protocol (TCP/IP) shall be the only protocol set used between OASIS Nodes whenever they are directly interconnected, or between OASIS Nodes and Users using private leased line internet network connections.

d. Hyper Text Transport Protocol (HTTP)

Hyper Text Transport Protocol (HTTP), Version 1.1 (RFC 2616), shall be supported by TSIPs so that Users= web browsers can use it to select information for viewing displays and for downloading and uploading files electronically.

e. Internet Protocol Address

All OASIS Nodes are required to use an IP address registered with the Internet Network Information Center (InterNIC), even if private connections are used.

002-2.4

INTERNET TOOL REQUIREMENTS

Support for the following specific internet tools is required, both for use over the public Internet as well as for any private connections between Users and OASIS Nodes:

a. Browser Support

OASIS Nodes shall insure that Users running minimally either Netscape's Navigator version 4.0.x or Microsoft's Internet Explorer version 4.0.x browsers (or any other commercially or privately available browser supporting that set of capabilities common to both of these industry standard browsers) shall have a fully functional user interface based on the Interface Requirements defined in Section 4.

b. HTML Forms

HTML Forms shall be provided by the TSIPs to allow Customers to enter information to the OASIS Node.

c. Domain Name Service (DNS)

Domain Name Service (DNS) (ref. RFC 1034, 1035) shall be provided as a minimum by the TSIPs (or their Internet Service Provider) for the resolution of IP addresses to allow Users to navigate easily between OASIS Nodes.

d. Simple Network Management Protocol (SNMP)

Simple Network Management Protocol (SNMP) is recommended but not required to provide tools for operating and managing the network, if private interconnections between OASIS Nodes are established.

e. The Primary Provider shall support E-mail

The Primary Provider shall support E-mail for exchanges with Customers, including the sending of attachments. The protocols supported shall include, as a minimum, the Simple Messaging Transfer Protocol (SMTP), Post Office Protocol (POP), and Multipurpose Internet Mail Extensions (MIME).

002-2.5 NAVIGATION AND INTERCONNECTIVITY BETWEEN OASIS NODES

a. World Wide Web Browsers

TSIPs shall permit Users to navigate using WWW browsers for accessing different sets of TS Information from one Provider, or for getting to TS Information from different Providers on the same OASIS Node. These navigation methods shall not favor User access to any Provider over another Provider, including Secondary Providers.

b. Internet Interconnection across OASIS Nodes

Navigation tools shall not only support navigation within the TSIP's Node, but also across interconnected OASIS Nodes. This navigation capability across interconnected Nodes shall, as a minimum, be possible through the public Internet.

002-3 INFORMATION ACCESS REQUIREMENTS

002-3.1 REGISTRATION AND LOGIN REQUIREMENTS

a. Location of Providers

To provide Users with the information necessary to access the desired Provider, all Primary Providers shall register their OASIS Node URL address with www.tsin.com. This URL address should include the unique four letter acronym the Primary Provider will use as the PRIMARY_PROVIDER_CODE.

b. Initial User Registration

TSIPs shall require Users to register with a Primary Provider before they are permitted to access the Provider's TS Information. There must be a reference pointing to registration procedures on each Primary Provider's home page. Registration procedures may vary with the administrative requirements of each Primary Provider.

c. Initial Access Privileges

Initial registration shall permit a User only the minimum Access Privileges. A User and a Primary Provider shall mutually determine what access privilege the User is permitted. The TSIP shall set a User's Access Privilege as authorized by the Primary Provider.

d. User Login

After registration, Users shall be required to login every time they establish a dial-up connection. If a direct, permanent connection has been established, Users shall be required to login initially or any time the connection is lost. Use of alternative forms of login and authentication using certificates and public key standards is acceptable.

e. User Logout

Users shall be automatically logged out any time they are disconnected. Users may logout voluntarily.

002-3.2

SERVICE LEVEL AGREEMENTS

Service Level Agreements: It is recognized that Users will have different requirements for frequency of access, performance, etc., based on their unique business needs. To accommodate these differing requirements, TSIPs shall be required to establish a "Service Level Agreement" with each User, which specifies the terms and conditions for access to the information posted by the Providers. The default Service Level Agreement shall be Internet access with the OASIS Node meeting all minimum performance requirements.

002-3.3

ACCESS TO INFORMATION

a. Display

TSIPs shall format all TS Information in HTML format such that it may be viewed and read directly by Users without requiring them to download it. This information shall be in clear English as much as possible, with the definitions of any mnemonics or abbreviations available on-line. The minimum information that is to be displayed is provided in the Templates in Section 4.3.

b. Read-Only Access to TS Information

For security reasons, Users shall have read-only access to the TS Information. They shall not be permitted to enter any information except where explicitly allowed, such as HTML transaction request forms or by the Templates in Section 4.3.

c. Downloading Capability

Users shall be able to download from an OASIS Node the TS Information in electronic format as a file. The rules for formatting of this data are described in Section 4.2.

d. On-Line Data Entry on Forms

Customers shall be permitted to fill out on-line the HTML forms supplied by the TSIPs, for requesting the purchase of services and for posting of products for sale (by Customers who are Resellers). Customers shall also be permitted to fill-out and post Want- Ads.

e. Uploading Capability

Customers shall be able to upload to OASIS Nodes the filled-out forms. TSIPs shall ensure that these uploaded forms are handled identically to forms filled out on-line. TSIPs shall provide forms that support the HTTP input of Comma Separated Variable (CSV) records. This capability shall permit a Customer to upload CSV records using standard Web browsers or additional client software to specify the location of the CSV records stored on the Customer's hard disk.

f. Selection of TS Information

Users shall be able to dynamically select the TS Information they want to view and/or download. This selection shall be, as a minimum, through navigation to text displays, the use of pull-down menus to select information for display, data entry into forms for initiating queries, and the selection of files to download via menus.

002-3.4

PROVIDER UPDATING REQUIREMENTS

The following are the Provider update requirements:

a. Provider Posting of TS Information

Each Provider (including Secondary Providers and Value-Added Providers) shall be responsible for writing (posting) and updating TS Information on their OASIS Node. No User shall be permitted to modify a Provider's Information.

b. General Postings

(i) INFO.HTM

Each Provider shall provide general information on how to use their node and describe all special aspects, such as line losses, congestion charges and assistance. The address for the directory of this information shall be INFO.HTM (case sensitive), an HTML web page, linked to the Provider's registered URL address. See Section 4.5 for information required to be on the web page INFO.HTM.

(ii) **Standards of Conduct**

The Transmission Provider shall establish a link entitled “Standards of Conduct,” located on the OASIS home page at the Transmission Provider’s registered URL address.

c. OASIS Node Space for Secondary Provider

To permit Users to readily find TS Information for the transmission systems that they are interested in, TSIPs shall provide database space on their OASIS Node for all Secondary Providers who have purchased, and who request to resell, transmission access rights for the power systems of the Primary Providers supported by that Node.

d. Secondary Provider Posting to Primary Provider Node

The Secondary Providers shall post the relevant TS Information on the OASIS Node associated with each Primary Provider from whom the transmission access rights were originally purchased.

e. Secondary Provider Posting Capabilities

The TSIPs shall ensure that the Secondary Providers shall be able to post their TS Information to the appropriate OASIS Nodes using the same tools and capabilities as the Customers, meet the same performance criteria as the Primary Providers, and allow users to view these postings on the same display page, using the same tables, as similar capacity being sold by the Primary Providers.

f. Free-Form Posting of Non-TS Information

The TSIP shall ensure that Providers and Customers may post non-TS Information, such as Want-Ads and that this information is easily accessible by all Users. The TSIP shall be allowed to limit the volume and/or to charge for the posting of non-TS Information.

g. Time Stamps

All TS Information shall be associated with a time stamp to show when it was posted to the OASIS Node.

h. Transaction Tracking by an Assignment Reference Number

All requests for purchase of transmission or ancillary services will be marked by a unique accounting number, called an assignment reference.

i. Time-Stamped OASIS Audit Log

All posting of TS Information, all updating of TS Information, all User logins and disconnects, all User download requests, all Service Requests, and all other transactions shall be time stamped and stored in an OASIS Audit Log. This OASIS Audit Log shall be the official record of interactions, and shall be maintained on-line for download for at least 90 days. Changes in the values of posted Capacity (Available Transfer Capability) must be stored in the on-line Audit Log for 20 days. Audit records must be maintained for 3 years off-line and available in electronic form within seven days of a Customer request.

j. Studies

A summary description with dates, and programs used of all transmission studies used to prepare data for the Primary Provider's ATC and TTC calculation will be provided along with information as to how to obtain the study data and results.

k. RESERVED

002-3.5 ACCESS TO CHANGED INFORMATION

a. General Message & Log

TSIPs shall post a general message and log that may be read by Users. The message shall state that the Provider has updated some information, and shall contain (or point to) a reverse chronological log of those changes. This log may be the same as the Audit Log. The User may use the manual capability to see the message.

b. TSIP Notification Design Responsibilities

The TSIP shall avoid a design that could cause serious performance problems by necessitating frequent requests for information from many Users.

002-3.6 USER INTERACTION WITH AN OASIS NODE

There are three basic types of User interactions which must be supported by the OASIS Node. These interactions are defined in Section 4.3.

a. Query/Response

The simplest level of interactions is the query of posted information and the corresponding response. The User may determine the scope of the information queried by specifying values, through an HTML form, a URL string, or an uploaded file, using Query Variables and their associated input values as defined with each Template in Section 4.3. The response will be either an HTML display or a record oriented file, depending on the output format that the User requests. The TSIP may establish procedures to restrict the size of the response, if an overly broad query could result in a

response that degrades the overall performance of the OASIS Node for their Users.

b. Purchase Request

The second type of Customer interaction is the submittal of a request to purchase a service. The Customer completes an input form, a URL string or uploads a file and submits it to the OASIS Node. The uploaded file can either be a series of Query Variables or a record oriented file. The Seller of the service, possibly off-line from the OASIS Node, processes the request and the status is updated accordingly. If the Seller approves the purchase request, then the Customer must again confirmed it. Once the Customer confirms an approved purchase, a reservation for those services is considered to exist, unless later the reservation is reassigned, displaced, or annulled.

c. Upload and Modify Postings

Customers who wish to resell their rights may upload a form, create the appropriate URL or upload a file to post services for sale. A similar process applies to eligible Third Party Sellers of ancillary services. The products are posted by the TSIP. The seller may monitor the status of the services by requesting status information. Similarly the Seller may modify its posted transmission services by submitting a service modification request through a form, a URL query, or by uploading a file.

002-4

INTERFACE REQUIREMENTS

002-4.1

INFORMATION MODEL CONCEPTS

a. ASCII-Based OASIS Templates

For providing information to Users, TSIPs shall use the specified OASIS Templates. These Templates define the information that must be presented to Users, both in the form of graphical displays and as downloaded files. Users shall be able to request Template information using query-response data flows. The OASIS Templates are described in Section 4.3. The Data Element Dictionary, which defines the Data Elements in the OASIS Templates, is provided in WEQ-003. Data elements must be used in the exact sequence and number as shown in the Templates when file uploads and downloads are used. Although the contents of the graphical displays are precisely defined as the same information as in the Templates, the actual graphical display formats of the TS information are beyond the scope of the OASIS requirements. Due to the nature of graphical displays, there may be more than one graphical display used to convey the information in a single Template.

b. ASCII-Based OASIS File Structures

For uploading requests from and downloading information to Users, TSIPs shall use specific file structures that are defined for OASIS Template information (see Section 4.2). These file structures are based on the use of headers that contain the Query Variable information, including the name of the OASIS Template. These headers thus determine the contents and the format of the data that follows. Although headers may not be essential if file transfers contain the exact sequence and number of Data Elements as the Templates, this feature is being preserved for possible future use when additional flexibility may be allowed.

002-4.2 OASIS NODE CONVENTIONS AND STRUCTURES

002-4.2.1 OASIS Node Naming Requirements

The following naming conventions shall be used to locate information posted on an OASIS Node. OASIS naming conventions shall conform to standard URL structures.

002-4.2.1.1 OASIS Node Names

In order to provide a consistent method for locating an OASIS Node, the standard Internet naming convention shall be used. All OASIS Node names shall be unique. Each Primary Provider OASIS Node name and home directory shall be registered with the master OASIS directory site at <http://www.tsin.com>. OASIS Node names shall be stored in an Internet DNS name directory.

002-4.2.1.2 OASIS Node and Primary Provider Home Directory

The home directory name on an OASIS Node shall be "OASIS" (all upper case) to identify that the directory is related to the OASIS. The directory of each Primary Provider shall be listed under the "OASIS" directory:

[http://\(OASIS Node name\)/OASIS/\(PRIMARY_PROVIDER_CODE\)](http://(OASIS Node name)/OASIS/(PRIMARY_PROVIDER_CODE))

Where:

(OASIS Node name) is the World Wide Web URL address of the OASIS Information Provider.

(PRIMARY_PROVIDER_CODE) (Case sensitive) is the 4-character acronym of the primary provider.

PRIMARY_PROVIDER_CODES shall be registered with the master OASIS directory site at <http://www.tsin.com>. A pointer to user registration information shall be located on the Primary Provider's home page.

002-4.2.1.3 Script Names

Common Gateway Interface (CGI) scripts shall be located in the directory "data" as follows (case sensitive): **http://(OASIS Node name)/OASIS/(PRIMARY_PROVIDER_CODE) /data/(cgi script name)?(Query Variables)**

Where:

(cgi script name) is the OASIS Template name in lower case (see Section 4.3). Other cgi scripts may be defined as required to implement the HTML interface to the documented Templates.

(Query Variables) is a list of query variables with their settings formatted as defined by the HTTP protocol (i.e., URL encoded separated by ampersands).

Example:

To request the hourly schedule Template at Primary Provider WXYZ Co.

http://www.wxyz.com/OASIS/WXYZ/data/schedule ?templ=schedule&ver=1.2&fmt=data &stime=19960412040000PD&sptime=19960412100000PD&pprov=wxyz

002-4.2.2

Data Element Dictionary

The following are the requirements for the Data Element Dictionary:

a. Definition of OASIS Information Elements

All OASIS Information Data Elements shall be defined in the Data Element Dictionary which will be stored in the OASIS Node directory:

- **http://(OASISNode Name)/OASIS/(PRIMARY_PROVIDER_CODE)/(datadic.htm | datadic.txt)**
- Where:
- **datadic.htm is the HTML version of the Data Element dictionary (case sensitive)**
- **datadic.txt is the ASCII text version of the Data Element dictionary (case sensitive)**
- The Data Element Dictionary is defined in Open Access Same-Time Information Systems (OASIS) Data Dictionary WEQ-003.

b. Provider-specific Data Element Values

The valid values that certain OASIS Information Data Elements may take on, such as PATH_NAME, etc., are unique to a Primary Provider. Names that must be uniquely identified by Primary Provider shall be listed on-line on the OASIS Node via the *list* Template (see Section 4.3.5). In posting OASIS information associated with Data Elements which are not free-form text, TSIPs shall use only the accepted Data Element values listed in the Data Element Dictionary and/or those values posted in the *list* of provider specific names provided on the OASIS Node.

002-4.2.3 OASIS Template Constructs

002-4.2.3.1 Template Construction

Standard 002-4.3 lists the set of OASIS Templates that shall be supported by all OASIS Nodes. These OASIS Templates are intended to be used precisely as shown for the transfer of data to/from OASIS Nodes, and identify, by Data Elements names, the information to be transferred. The construction of the OASIS Templates shall follow the rules described below:

a. Unique OASIS Template Name

Each type of OASIS Template shall be identified with a unique name which shall be displayed to the User whenever the OASIS Template is accessed.

b. Transfer Protocol

OASIS Templates are transferred using the HTTP protocol. Templates shall support both the "GET" and "POST" methods for transferring "query string" name/value pairs, as well as the OASIS specific "comma separated value" (CSV) format for posting and retrieval of information from OASIS Nodes. HTML screens and forms shall be implemented for each OASIS Template.

c. Source Information

Each OASIS Template shall identify the source of its information by including or linking to the name of the Primary Provider, the Secondary Provider, or the Customer who provided the information.

d. Time Of Last Update

Each OASIS Template shall include a time indicating when it was created or whenever the value of any Data Element was changed.

e. Data Elements

OASIS Templates shall define the elementary Data Element Dictionary names for the data values to be transferred or displayed for that Template.

f. Documentation

OASIS Information shall be in non-cryptic English, with all mnemonics defined in the Data Element Dictionary or a glossary of terms. TSIPs shall provide on-line descriptions and help screens to assist Users understanding the displayed information. Documentation of all formats, contents, and mnemonics shall be available both as displays and as files that can be downloaded electronically. In order to meet the "User-Friendly" goal and permit the flexibility of the OASIS Nodes to expand to meet new requirements, the OASIS Templates shall be as self-descriptive as possible.

002-4.2.3.2 Template Categories

OASIS Templates are grouped into the following two major categories:

a. Query/Response

These Templates are used to query and display information posted on an OASIS Node. Each query/response Template accepts a set of user specified Query Variables and returns the appropriate information from data posted on the OASIS Node based on those Query Variables. The valid Query Variables and information to be returned in response are identified by Data Element in Section 4.3.

b. Input/Response

These Templates are used to upload/input information on an OASIS Node. The required input information and information to be returned in response are identified by Data Element in Section 4.3, Template Descriptions.

002-4.2.3.3 Template HTML Screens

Though the exact form and content of the HTML screens and forms associated with the OASIS Templates are not dictated by this document, the following guidelines shall be adhered to for all HTML screens and forms implemented on an OASIS Node:

a. Data Element Headings

Data displayed in an HTML screen/form shall be labeled such that the associated data value(s) is (are) easily and readily identifiable as being associated with a particular OASIS Template Data Element. HTML "Hot-Links" or other pointer mechanisms may be provided for Data Element headings in OASIS Templates which permit the User to access

documentation describing the meaning, type, and format of the associated data.

b. Display Limitations

HTML screens and forms shall be implemented in such a way to allow the display of all data specified for each OASIS Template. This may take the form of "wrapping" of lines of information on the screen, the use of horizontal and/or vertical scrolling, or the use of "Hot-Links" or other pointer mechanisms. There is not necessarily a one-to-one relationship between HTML screens implemented on OASIS Nodes, and their associated Template. However, all Template Data Elements shall be viewable through one or more HTML screens.

c. Template Navigation

HTML "Hot-Links" or other pointer mechanisms may be provided to assist the navigation between screens/forms associated with related OASIS Templates.

002-4.2.4 Query/Response Template Requirements

Retrieval of information posted on an OASIS Node is supported by the Query/Response Templates. The "query" identifies the OASIS Template and optionally supplies additional Data Elements that may be used to select specific information to be returned in the "response".

002-4.2.4.1 Query Requirements

Query information is transferred to an OASIS Node using the HTTP protocol as a string of Query Variables in the form of name/value pairs. Query Variable name/value pairs are specified as a collection of encoded strings (e.g., blank characters replaced by plus (+) character, etc.) in the form of **name=value**, with each name/value pair separated by ampersands (&) (see Section 4.2.6). OASIS Nodes shall support the following methods for Users to input Query information:

a. HTML

HTML FORM input and/or hypertext links shall be provided to allow Users to specify OASIS Template Query Variables. This will be the easiest way to obtain information and should be the choice of most casual Users and for simple requests. The exact nature and form of these HTML screens are not specified, and may differ between OASIS Nodes.

b. GET Method

The HTTP GET method for specifying query information appended to a standard OASIS URL shall be supported. Using this method, the **name=value** formatted Query Variables preceded by a question mark (?) are appended to the URL. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. OASIS Nodes shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.

c. POST Method

The HTTP POST method for specifying query information in the message body shall be supported. Using this method, the **name=value** formatted Query Variables shall be transferred to an OASIS Node using the "**Content-length:**" HTTP header to define the length in bytes of the encoded query string and the "**Content-type: application/x-www-form-urlencoded**" HTTP header to identify the data type included in the message body. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. An OASIS Node shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.

User queries using any of the above methods are supported directly by the User's web browser software. More sophisticated data transfer mechanisms, such as the automated querying of information based on Query Variable strings contained in a User data file (i.e., "uploading a file containing a URL string), require appropriate software (e.g., "fetch_http") running on the User's computer system to effect the data transfer.

002-4.2.4.2 Response Requirements

In response to a validly formatted Query for each Query/Response OASIS Template, the OASIS Node shall return the requested information in one of two forms based on the User specified OUTPUT_FORMAT Query Variable:

a. HTML

If the User requests the response to have the format of "HTML" (OUTPUT_FORMAT=HTML) then the response from the OASIS Node shall be a web page using the HTML format. This shall be the default for all Query/Response Templates.

b. CSV Format

Comma Separated Value (CSV) format (OUTPUT_FORMAT=DATA) returns the requested information in the body of the HTTP response message. The "**Content-length:**" HTTP header shall define the length in bytes of the response, and the "**Content-type: text/x-oasis-csv**" HTTP header shall be used to identify the data type included in the message body (see CSV File Format).

002-4.2.5 Input/Response Template Requirements

Input/Response Templates support the posting of information on an OASIS Node, including reservations for transmission/ancillary service and services for sale on the secondary market, etc. The "input" identifies the required data associated with an OASIS Template to be posted on the OASIS Node, and the "response" specifies the information returned to the User.

002-4.2.5.1 Input Requirements

Input information is transferred to an OASIS Node using the HTTP protocol as either a string of Query Variables in the form of name/value pairs, or as a Comma Separated Value (CSV) message. Query Variable name/value pairs are specified as a collection of encoded strings (e.g., blank characters replaced by plus (+) character, etc.) in the form of **name=value**, with each name/value pair separated by ampersands (&). CSV formatted messages are specified in the body of an HTTP message as a series of Data Records preceded by a fixed set of header records (see Section 4.2.7). OASIS Nodes shall support the following methods for Users to transfer Input data:

a. HTML

HTML FORM input shall be provided to allow Users to specify the necessary Input data associated with each Input/Response OASIS Template. This may be in the form of fill in blanks, buttons, pull-down selections, etc., and may use either the GET or POST methods. The exact nature and form of these HTML screens are not specified, and may differ between OASIS Nodes.

b. GET Method

The HTTP GET method for specifying Input information in the form of a query string appended to a standard OASIS URL shall be supported. Using this method, the **name=value** formatted Query Variables preceded by a question mark (?) are appended to the URL. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. OASIS Nodes shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.

c. **POST Method**

The HTTP POST method for specifying Input information in the form of a query string in the message body shall be supported. Using this method, the **name=value** formatted Query Variables shall be transferred to an OASIS Node using the "**Content-length:**" HTTP header to define the length in bytes of the encoded query string and the "**Content-type: application/x-www-form-urlencoded**" HTTP header to identify the data type included in the message body. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. OASIS Nodes shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.

d. **CSV Format**

Comma Separated Value (CSV) formatted Input information transferred in the body of a User's HTTP message shall be supported. The "**Content-length:**" HTTP header shall define the length in bytes of the Input, and the "**Content-type: text/x-oasis-csv**" HTTP header shall be used to identify the data type included in the message body.

002-4.2.5.2 Response to Input

In response to a validly formatted Input for each Input/Response OASIS Template, the OASIS Node shall return an indication as to the success/failure of the requested action. The OASIS Node shall respond to the Input in one of two forms, based on the OUTPUT_FORMAT, which was input by a User either as a Query Variable or in a CSV format Header Record:

a. **HTML**

If the User requests the response to have the format of "HTML" (OUTPUT_FORMAT =HTML) then the response from the OASIS Node shall be a web page using the HTML format. This shall be the default for all Input/Response Templates invoked using either the FORM, GET or POST methods of input.

b. **CSV Format**

Comma Separated Value (CSV) format (OUTPUT_FORMAT=DATA) returns the response information in the body of the HTTP response message. The "**Content-length:**" HTTP header shall define the length in bytes of the response, and the "**Content-type: text/xoasis-csv**" HTTP header shall be used to identify the data type included in the message body. This shall be the default for all Input/Response Templates invoked using the CSV Format methods of input.

002-4.2.6 **Query Variables**

002-4.2.6.1 General

Both Query/Response and Input/Response OASIS Templates shall support the specification of a query string consisting of Query Variables formatted as name/value pairs. OASIS Nodes shall support the specification of Data Element names ("name" portion of **name=value** pair) in both the full name and alias forms defined in the Data Dictionary. OASIS Nodes shall support the specification of Query Variables from the User using either the HTTP GET or POST methods. On input, Data Element names and associated values shall be accepted and processed without regard to case. On output, Data Element names and associated values may not necessarily retain the input case, and could be returned in either upper or lower case.

002-4.2.6.2 Standard Header Query Variables

The following standard Query Variable Data Elements shall be supported for all OASIS Templates and must be entered for each Query by a User:

VERSION
TEMPLATE
OUTPUT_FORMAT
PRIMARY_PROVIDER_CODE
PRIMARY_PROVIDER_DUNS
RETURN_TZ

Since these header Query Variables must be supported for all Templates, they are not listed explicitly in the Template descriptions in Section 4.3 The User must enter all standard Header Query Variables with appropriate values.

002-4.2.6.3 Responses to Queries

Responses to Queries will include the following information as a minimum:

TIME_STAMP
VERSION
TEMPLATE
OUTPUT_FORMAT
PRIMARY_PROVIDER_CODE
PRIMARY_PROVIDER_DUNS
RETURN_TZ

The additional information shall include:

- a. The requested information as defined by the Template indicated in the Query
- b. For CSV downloads, the additional header Data Elements required (see Section 4.2.7.3)

002-4.2.6.4 Multiple Instances

Certain Query Variables may be repeated in a given Query/Response OASIS Template query string. Such multiple instances are documented in the Template definitions using an asterisk (*) after the Query Variable. When more than one instance of the Query Variable is specified in the query string, OASIS Nodes shall recognize such multiple instances by either the Data Element's full name or alias suffixed with sequential numeric qualifiers starting with the number 1, (e.g., PATH_NAME1=abc&PATH_NAME2=xyz, or PATH1=abc&PATH2=xyz). At least 4 multiple instances will be permitted for each Query Variable marked with an asterisk (*).

002-4.2.6.5 Logical Operations

OASIS Nodes shall use the following logical operations when processing Query Variables for Query/Response OASIS Templates.

- a. All Query Variables, with the exception of multiple instances of the same Query Variable Data Element, shall be operated on to return information based on the logical- AND of those Query Variables. For example, the query string "SELLER_CODE=abc &PATH=xyz" should return information associated with only those records that are on transmission path "xyz" AND associated with transmission provider "abc."
- b. Multiple instances of the same Query Variable shall be operated on as logical-OR. For example, "SELLER_CODE=abc &PATH1=xyz&PATH2=opq" should return information associated with transmission provider "abc" AND either transmission path "xyz" OR transmission path "opq". Some logical operations may exclude all possibilities, such that the responses may not contain any data.

002-4.2.6.6 Handling of Time Data Elements

- a. In cases where a single Query Variable is provided to select information associated with a single Template Data Element that represents a point in time (e.g., TIME_OF_LAST_UPDATE), OASIS Nodes shall return to the User all requested information whose associated Data Element time value (e.g. TIME_OF_LAST_UPDATE) is equal to or later than the value specified by the Query Variable. In this case the stop time is implicitly "now".
- b. A pair of Query Variables (e.g. START_TIME_QUEUED and STOP_TIME_QUEUED) that represents the start and stop of a time interval but is associated with one single Template Data Element (e.g. TIME_QUEUED) shall be handled by OASIS Nodes to return to the User all requested information whose associated Data Element time value falls within the specified time interval.
- c. A pair of Query Variables (e.g. START_TIME and STOP_TIME Query Variables) that represents the start and stop of one time interval but is associated with another pair of Template Data Elements (e.g. START_TIME

and STOP_TIME of a service offering) that represents a second time interval, shall be handled by OASIS Nodes to return to the User all requested information whose associated Data Element time interval overlaps any portion of the specified time interval. Specifically, the START_TIME Query Variable selects all information whose STOP_TIME Data Element value is later than the START_TIME Query Variable, and the STOP_TIME Query Variable selects all information whose START_TIME Data Element value is earlier than the STOP_TIME Query Variable. For example:

The **transoffering** Template query string "START_TIME 970101000000ES&STOP_TIME 970201000000ES" shall select from the OASIS database all associated offerings whose start/stop times overlap any portion of the time from 00:00 January 1, 1997, to 00:00 February 1, 1997. This would include offerings that (1) started prior to Jan. 1 and stopped any time on or after Jan. 1, and (2) started on or after Jan 1 but before Feb 1

- d. For changes to and from daylight savings time, either Universal Time or the correct time and zone must be used, based on whether daylight savings time is in effect.
- e. All time values shall be checked upon input to ensure their validity with respect to date, time, time zone, and daylight savings time.

002-4.2.6.7 Default Values

Query Variables that are not specified by the User may take on default values as appropriate for that Query Variable at the discretion of the OASIS TSIP.

002-4.2.6.8 Limitations on Queries

OASIS TSIP may establish validation procedures and/or default values for Query Variables to restrict the size and/or performance impact of overly broad queries.

002-4.2.7 CSV Format

002-4.2.7.1 General Record Format

OASIS Users shall be able to upload information associated with Input/Response OASIS Templates and download information associated with all OASIS Templates using a standardized Comma Separated Value (CSV) format. CSV formatted data is transferred to/from OASIS Nodes as part of the body of an HTTP message using the "**Content-length:**" HTTP header to define the length in bytes of the message body, and the "**Content-type: text/x-oasis-csv**" HTTP header to identify the data type associated with the message body. CSV formatted data consists of a fixed set of header records followed by a variable number of Data Records. Each record shall be separated by a carriage return plus line feed (denoted by the symbol ␣ in all examples). The fields within a record shall be delimited by commas (.). All data within a CSV formatted message shall use printable ASCII characters with no

other special embedded codes, with the exception of the special encoding requirements associated with text fields.

002-4.2.7.2 Input Header Records

The following standard header records are required for the uploading of Input data for all Input/Response OASIS Templates:

```
VERSION=1.4.┘  
TEMPLATE=aaaaaaaa.┘  
OUTPUT_FORMAT=DATA.┘  
PRIMARY_PROVIDER_CODE=aaaa.┘  
PRIMARY_PROVIDER_DUNS=nnnnnnnn.┘  
RETURN_TZ=tz.┘  
DATA_ROWS=nnn.┘  
COLUMN_HEADERS=[Template Data Element names separated by  
commas].┘
```

The format of the value associated with each of the Input header record Data Elements are dictated by the Data Dictionary. The value associated with the DATA_ROWS Data Element shall define the total number of Data Records that follow in the message after the COLUMN_HEADERS record. The COLUMN_HEADERS record defines, by Data Element name, the data associated with each comma separated column contained in each subsequent Data Record (row). On Input, either the Data Element's full name or alias listed in the Data Dictionary may be specified.

002-4.2.7.3 Response Header Records

When explicitly specified using the OUTPUT_FORMAT=DATA Query Variable or implied by the Input of a CSV format message, the OASIS Nodes shall respond with the following standard response header records for all OASIS Templates:

```
REQUEST_STATUS=nnn.┘  
ERROR_MESSAGE=aaa.┘  
TIME_STAMP=yyyymmddhhmmsstz.┘  
VERSION=1.4.┘  
TEMPLATE=aaaaaaaa.┘  
OUTPUT_FORMAT=DATA.┘  
PRIMARY_PROVIDER_CODE=aaaa.┘  
PRIMARY_PROVIDER_DUNS=nnnnnnnn.┘  
RETURN_TZ=tz.┘  
DATA_ROWS=nnn.┘  
COLUMN_HEADERS=[Template Data Element names separated by  
commas].┘
```

The format of the value associated with each of the Response header record Data Elements are dictated by the Data Dictionary. The value associated with

the DATA_ROWS Data Element shall define the total number of Data Records returned in the message following the COLUMN_HEADERS header record. The COLUMN_HEADERS record defines, by Data Element name, the data associated with each comma-separated column contained in each subsequent Data Record (row). In all OASIS Node responses, the Data Element's full name shall be listed in the COLUMN_HEADERS record. The order of the column headings shall be the same as shown in the Templates for URL uploads and downloads. For graphical displays, the Provider may define the order that the Data Element names are shown.

002-4.2.7.4 Data Records

Data Records immediately follow the standard Input or Response header records. With the exception of Data Records grouped together as a single "logical record" through the use of Continuation Records, each Data Record in a CSV formatted Input message represents a single, complete execution of the associated OASIS Template. That is, sending five CSV formatted Input messages for a given Template to the same PRIMARY_PROVIDER_CODE with a single Data Record per message shall be handled in exactly the same fashion as sending a single CSV formatted Input message for the same Template and PRIMARY_PROVIDER_CODE which contains five Data Records. Each field (column) within each Data Record defines the value to be associated with the corresponding Data Element defined in the COLUMN_HEADERS record. The number of Data Records in the message is defined by the DATA_ROWS header record. The data values associated with each column Data Element are interpreted based on the Data Element type as defined in the Data Dictionary:

- a. **Numeric Data Elements:** All numeric Data Elements shall be represented by an ASCII string of numeric digits in base ten, plus the decimal point.
- b. **Text Data Elements:** Alphabetic and alphanumeric Data Elements shall be represented as ASCII strings and encoded using the following rules:
 - Text strings that do not contain commas (,) or double quotes (") shall be accepted both with and without being enclosed by double quotes.
 - Text fields with commas (,) or double quotes (") must be enclosed with double quotes. In addition double quotes within a text field shall be indicated by two double quotes ("").
 - The Data Element field length specified in Data Dictionary does not include the additional double quotes necessary to encode text data.
- c. **Null Data Elements:** Null Data Elements shall be represented by two consecutive commas (,,) corresponding to the leading and trailing (if appropriate) Data Element comma separators. Null text strings may optionally be represented by two consecutive double quote characters within the leading and trailing comma separators (i.e., Y,"",Y).

002-4.2.7.5 Continuation Records

Continuation records shall be used to indicate that the information in multiple rows (records) is part of one logical record. Continuation records will be indicated through the use of a column header called CONTINUATION_FLAG. This column header is either the first column (if in a response to a query) or second column (if in a response to an input) in all Templates permitting continuation records. The first record shall contain an "N" in the CONTINUATION_FLAG column and each following record which is part of a continuation record shall contain a "Y" in this column, thus associating the information in that record with the information in the previous record. An "N" shall indicate that the record is not a continuation record. In addition to the CONTINUATION_FLAG Data Element identifying that a record is associated with a previous record, any unique record identifier associated with the first (CONTINUATION_FLAG = N) record shall be repeated in all subsequent continuation records returned in an OASIS response. Each Template that supports the use of continuation records and those particular Data Elements (COLUMN_HEADERS) that may be referenced in one or more continuation records are identified in Standards 002-4.3. On upload or input of Template data, any values supplied via continuation records that correspond to COLUMN_HEADERS other than those explicitly allowed to appear in continuation records for a particular Template shall be ignored. However commas must be included to properly align the fields (columns). Note that the submission of continuation records is only supported by the CSV Format method of uploading data to an Input/Response Template.

002-4.2.7.6 Error Handling in CSV-Formatted Responses

- a. Validity of each record in the CSV-formatted Response to a Template Input shall be indicated through the use of RECORD_STATUS and ERROR_MESSAGE Data Elements which are included in each Data Record (row) of the Response.
 - If no error was encountered in an Input Data Record, the RECORD_STATUS Data Element in the corresponding Response record shall be returned with a value of 200 (success), and the ERROR_MESSAGE shall be blank.
 - If any error is detected in processing an Input Data Record, it shall be indicated by a RECORD_STATUS Data Element value other than 200. The ERROR_MESSAGE shall be set to an appropriate text message to indicate the source of the error in that Data Record.
- b. The overall validity of each Template Query or Input shall be indicated in the CSV-formatted Response via the two REQUEST_STATUS and ERROR_MESSAGE header records (see Standard 002-4.2.7.3):
 - If no errors were encountered in processing the User's Input Data Records, the REQUEST_STATUS shall be returned with the value of 200 (success), and the ERROR_MESSAGE shall be blank.

- If any errors were detected in the Template Input Data Records, the REQUEST_STATUS value shall be any value other than 200, and the ERROR_MESSAGE shall be set to an appropriate text message to indicate the source of the error.
- c. The OASIS Node shall validate all Input records before returning a Response to the User. The Node shall process all valid records, while invalid records shall be identified as erroneous through the use of RECORD_STATUS and ERROR_MESSAGE. The User must correct the invalid fields and resubmit only those records that were invalid. If an error is encountered in a record which is part of a set of Continuation records, then all records belonging to that set must be resubmitted.

002-4.2.8 Registration Information

002-4.2.8.1 General

As specified in the Information Access Requirements, OASIS Nodes shall provide a mechanism to register Users of the OASIS Node with a Provider. For all levels of access to OASIS information beyond simple read-only access, OASIS Nodes shall provide a mechanism to identify Users of the OASIS at least to the level of their respective Companies. The OASIS Node shall maintain both Company and User registration information.

002-4.2.8.2 Company Information

OASIS Templates require that certain Company registration information be maintained. As an extension of the Company registration information of the host, domain and port identifiers for dynamic notification of changes in the Customer's purchase requests, a field should be added to the Company's registration information that would define/identify how notification would be delivered to that Company should a transmission or ancillary purchase request be directed to that Company as a Seller of a transmission or ancillary service. The pertinent information would be either a full HTTP protocol URL defining the protocol, host name, port, path, resource, etc. information or a "mailto:" URL with the appropriate mailbox address string. On receipt of any purchase request directed to that Company as SELLER via either the **transrequest** or **ancrequest** Templates, or on submission of any change in request information submitted to that Company as SELLER via either the **transcust** or **anccust** Templates, a notification message formatted as documented for the delivery of notification to the Customer, shall be formatted and directed to the Seller. At a minimum, OASIS Nodes shall maintain the following information for each Company:

a. Company Code

4 character code for primary transmission providers; 6 character code for eligible customers in accordance with NERC Tagging Information System (TIS) requirements shall be maintained for each Company.

b. Default Contact

Unless specified for each individual user affiliated with the Company, default contact information consisting of a phone number, fax number, and e-mail address shall be maintained for each Company.

c. Provider Affiliation

Each eligible Customer shall be obligated to identify to the OASIS TSIP any affiliation with a Transmission Provider whose "home page" is on that OASIS Node.

d. Notification URL

For Companies using the URL notification mechanism for delivery of messages on each change of ancillary/transmission reservation STATUS, each Company shall provide the IP host name and port number to be used in delivering notification messages. OASIS Nodes shall have the right to refuse support for notification to any IP ports other than port 80.

002-4.2.8.3 User Information

With the exception of "read-only" (visitor) access, OASIS Nodes shall, at a minimum, provide a mechanism to identify Users of the Node with at least their Company. However, OASIS Nodes and Providers shall have the right to require full User identification even for visitor accounts. To support the required OASIS Template Data Elements, OASIS Nodes shall maintain the following information for each registered User:

- Company
- Name
- Phone
- Fax
- E-mail

In the event no additional User identification/registration information is maintained by the OASIS Nodes, all Template Data Elements referring to "company, name, phone, fax, e-mail" for either Customers or Sellers shall default to the Contact Information maintained for that User's Company.

002-4.2.9 **Representation of Time**

002-4.2.9.1 General

It is critical that all Users of OASIS Nodes have a clear and unambiguous representation of time associated with all information transferred to/from OASIS Nodes. For this reason, all Data Elements associated with time in OASIS Nodes shall represent "wall clock" times, which are NOT to be confused with other common industry conventions such as "hour ending." For the convenience of the User community, OASIS Nodes shall be allowed to accept the input and display of "time" in any acceptable form provided such non-standard representations are CLEARLY labeled on the associated HTML screens. Alternate representations of time in CSV formatted messages shall not be allowed. The following rules shall be implemented in OASIS Nodes for the representation of time on User entries (Query and Input) and output (Response) Templates.

002-4.2.9.2 Input Time

All time related Data Elements associated with either the Input or Query of Input/Response or Query/Response OASIS Templates shall be validated according the following rules. If the time zone associated with a time Data Element is associated with either Universal Time (UT) or a "standard" time zone (e.g., ES, CS, etc.), OASIS Nodes shall accept and apply a fixed hour offset from Universal Time year-round. If the time zone associated with a time Data Element is specified with a "daylight savings" time zone (e.g. ED, CD, etc.), OASIS Nodes shall verify that daylight savings time is in effect for the date/time specified. If daylight savings time (as specified by the time from 2:00am on the first Sunday of April through 2:00 am on the last Sunday of October) is not in effect, the Users input shall be rejected with an error response. If daylight savings time is in effect, the Users input shall be accepted and the appropriate hours offset from Universal Time shall be applied by OASIS Nodes for conversion to all other time zones. The input of start/stop times for transactions spanning the crossover day between standard and daylight (and vices versa) times must be made either entirely in standard time (valid year-round), or in two different time zones (xS/xD or xD/xS) for the start and stop times, depending on the time of year.

002-4.2.9.3 Output (Response) Time

The OASIS Node shall return all time Data Elements in the response to Input/Response or Query/Response OASIS Templates based on either the User specified RETURN_TZ header Query Variable or an appropriate OASIS specific default. OASIS Nodes shall interpret RETURN_TZ to specify:

- a. The base time zone for conversion of all time Data Elements (e.g. Eastern, Pacific, etc.)

- b. Whether daylight savings time is recognized. For example, a RETURN_TZ=ES would return all time Data Elements in Eastern Standard Time year-round. However, a RETURN_TZ=ED would direct OASIS Nodes to return all time Data Elements in Eastern Standard Time (ES) when daylight savings time is not in effect, and then return all time Data Elements in Eastern Daylight Time (ED) when daylight time is in effect.

002-4.2.10 Transaction Process

OASIS shall implement Templates that allow Customers and Sellers to enter, modify and consummate arrangements for transmission and ancillary services. In addition to the Template interface defined by these Standards, OASIS shall also provide a browser-based User Interface that implements the same basic functionality provided by the template interface through one or more displays or forms.

The OASIS transaction process is controlled through the transaction REQUEST_TYPE, identifying the type of transaction being conducted, and STATUS, indicating the request's current state in the transaction process. The WEQ-013-2 OASIS Implementation Guide Standard describes in detail the transaction process that must be implemented on OASIS. The Implementation Guide also provides specific requirements and recommendations related to the handling of particular requests from both a technical and business process perspective.

002-4.2.10.1 Request Types

Transmission Customers must submit requests for transmission and ancillary services to OASIS using one of the valid enumerated values in the REQUEST_TYPE data element. The valid values for REQUEST_TYPE are defined in the WEQ-003 Standard, OASIS Data Dictionary. Each REQUEST_TYPE is also defined and its use in the OASIS transaction process in the WEQ-013-2.1 Standard, OASIS Implementation Guide. The Implementation Guide also describes request type specific requirements.

002-4.2.10.2 Status Values

The STATUS Data Element is used in the OASIS transaction process to control the interaction between Customer and Seller and communicate information regarding the state of the transaction between the parties. The valid values for the STATUS Data Element are enumerated in the WEQ-003 Standard, OASIS Data Dictionary. Definitions for each of the STATUS values and a transaction state transition diagram for the STATUS Data Element is described in detail in the WEQ-013-2.2 Standard, OASIS Implementation Guide.

002-4.2.10.3 Dynamic Notification

Customers may specify the delivery of dynamic notification messages on each change in STATUS or any other Data Element(s) associated with an ancillary or transmission service reservation. OASIS Nodes shall support the delivery of dynamic notification messages through either the HTTP protocol or by electronic mail. The selection of which mechanism is used and the contents of the messages delivered to the client program or e-mail address is defined by the content of the STATUS_NOTIFICATION Data Element as described in the next subsections. Regardless of whether this dynamic notification method is used or not, it shall still remain the User's responsibility to get the desired information, possibly through the use of a periodic "integrity request". OASIS Nodes shall not be obligated or liable to guarantee delivery/receipt of messages via the STATUS_NOTIFICATION mechanism other than on a "best effort" basis. As an extension of the Company registration information of the host, domain and port identifiers for dynamic notification of changes in the Customer's purchase requests, a field should be added to the Company's registration information that would define/identify how notification would be delivered to that Company should a transmission or ancillary purchase request be directed to that Company as a Seller of a transmission or ancillary service. The pertinent information would be either a full HTTP protocol URL defining the protocol, host name, port, path, resource, etc. information or a "mailto:" URL with the appropriate mailbox address string. On receipt of any purchase request directed to that Company as SELLER via either the *transrequest* or *ancrequest* Templates, or on submission of any change in request STATUS (or any other Data Elements associated with the request) to that Company as SELLER via either the *transcust* or *anccust* Templates, a notification message formatted as documented for the delivery of notification to the Customer, shall be formatted and directed to the Seller. This extension of dynamic notification is required only where the Transmission Provider has programmed its computer system for its own notification.

002-4.2.10.3.1 HTTP Notification

OASIS Nodes shall deliver dynamic notification to a client system based on HTTP URL information supplied in part by the STATUS_NOTIFICATION Data Element and by information supplied as part of the Customer's Company registration information. HTTP URL's are formed by the concatenation of a protocol field (i.e., http:), a domain name (e.g., //www.tsin.com), a port designation (e.g., :80), and resource location information.

The STATUS_NOTIFICATION Data Element shall contain the protocol field "http:", which designates the notification method/protocol to be used, followed by all resource location information required; the target domain name and port designations shall be inserted into the notification URL based on the Customer's Company registration information. The resource location information may include directory information, cgi script identifiers and URL encoded query string name/value pairs as required by the Customer's application. An OASIS Node performs no processing on the resource location information other than to include it verbatim along with

the protocol, domain name and port information when forming the URL that will be used to deliver the HTTP protocol notification message. For example,

Company XYZ has established the domain name and port designations of "oasistc.xyz.com:80" as part of their registration information. When a transmission reservation is submitted by one of Company XYZ's users (the Customer), and includes a STATUS_NOTIFICATION Data Element with the value of:

```
http://cgi-bin/status?DEAL_REF=8&REQUEST_REF=173
```

An OASIS Node shall deliver an HTTP notification message using the URL:

```
http://oasistc.xyz.com:80/cgi-  
bin/status?DEAL_REF=8&REQUEST_REF=173
```

If the STATUS_NOTIFICATION field contained only the "http:" protocol designation, the notification message would be delivered using the URL:

```
http://oasistc.xyz.com:80
```

The contents of the HTTP protocol notification message delivered by an OASIS Node shall consist of the complete URL created by combining fields from the STATUS_NOTIFICATION Data Element and Company registration information as part of an HTTP POST method request. In addition to the POST method HTTP header record, OASIS Nodes shall also append the CSV formatted output of the transstatus Template information for that particular reservation using the standard Content-type: text/x-oasis-csv and appropriate Content-length: HTTP header records. OASIS Nodes shall use a Primary Provider specific default value for RETURN_TZ in formulating the transstatus response information. Continuing with the previous example, the important records in the HTTP notification message that would be delivered to Company XYZ for the transmission reservation request submitted to Primary Provider ABC and given an ASSIGNMENT_REF of 245 would be:

```
POST http://oasistc.xyz.com:80/cgi-  
bin/status?DEAL_REF=8&REQUEST_REF=173  
HTTP/1.0
```

```

Content-type: text/x-oasis-csv
Content-length: <byte count of remainder of message>␣
REQUEST_STATUS=200␣
TIME_STAMP=20070910123010ES␣
VERSION=1.4␣
TEMPLATE=transstatus␣
OUTPUT_FORMAT=DATA␣
PRIMARY_PROVIDER_CODE=ABC␣
PRIMARY_PROVIDER_DUNS=123456789␣
RETURN_TZ=ES␣
DATA_ROWS=1␣
COLUMN_HEADERS=CONTINUATION_FLAG,
ASSIGNMENT_REF, . . . ␣
N, 245, . . . ␣
    
```

In the event an error is encountered delivering the HTTP notification message to the target URL as indicated by a failure of the target system to respond, or return of HTTP response status of 408, 500, 503, or 504, OASIS Nodes shall retry up to two more times, once every 5 minutes.

002-4.2.10.3.2 E-mail Notification

OASIS Nodes shall deliver dynamic notification to an e-mail address based on Mailto: URL information specified in the STATUS_NOTIFICATION Data Element. Mailto: URL's consist of the "mailto:" protocol identifier and an Internet mail address to which the notification message should be sent. The STATUS_NOTIFICATION Data Element shall contain the protocol field "mailto:", which designates the notification method/protocol to be used, followed by an Internet mail address in conformance with RFC 822. OASIS Nodes shall send an e-mail message to the Internet mail address containing the following information: "To:" set to the mail address from the STATUS_NOTIFICATION Data Element, "From:" set to an appropriate mail address of the OASIS Node, "Subject:" shall be the **transstatus** Template name followed by the value of the ASSIGNMENT_REF Data Element and the current value for the STATUS Data Element associated with the reservation (e.g., "Subject: **transstatus** 245 ACCEPTED"), and the body of the message shall contain the CSV formatted output of the **transstatus** Template information for that particular reservation. OASIS Nodes shall use a Primary Provider specific default value for RETURN_TZ in formulating the **transstatus** response information.

002-4.2.10.4 Use of Comments

Transmission and ancillary service reservation templates support the following text data elements to be used to communicate information between parties (i.e., transmission provider, seller, and customer) to a transaction:

- PRIMARY_PROVIDER_COMMENTS - for information to be communicated by the primary transmission provider to all other parties

- SELLER_COMMENTS - for information to be communicated by the seller (either primary provider or reseller) to the customer
- CUSTOMER_COMMENTS - for information to be communicated by the customer to the seller
- STATUS_COMMENTS - for information to be communicated by any party to all other parties

Use of these comments fields is at the discretion of the parties to the transaction with the exception that sellers of services must indicate via SELLER_COMMENTS the reason for denial of any request for service (STATUS values of INVALID, REFUSED, or DENIED). Transactions which are subject to displacement, either before or after confirmation (STATUS values of SUPERSEDED or DISPLACED), shall also include a reference to the competing reservation request that initiated the displacement in the SELLER_COMMENTS.

002-4.2.11 Reference Identifiers

- a. The TSIP shall assign a unique reference identifier, ASSIGNMENT_REF, for each Customer request to purchase capacity or services. The value of ASSIGNMENT_REF may be used to imply the order in which the request was received by the TSIP. This identifier will be used to track the request through various stages, and will be kept with the service through out its life. Whenever a transaction is modified by a subsequent transaction, a new ASSIGNMENT_REF number is assigned to that subsequent transaction along with a reference to the previous transaction such that a chain of all transactions related to the service can be maintained. These changes create a parent/child relationship between related requests. The TSIP shall use REASSIGNED_REF or RELATED_REF as specified in SWEQ-013-2.6 to identify the parent request's ASSIGNMENT_REF and shall increment the IMPACTED counter of the parent request by 1. Reductions to a request posted by the Transmission Provider shall also reference the requests ASSIGNMENT_REF and the TSIP shall increment the IMPACTED counter of the request by 1.
- b. The TSIP shall assign a unique reference identifier, POSTING_REF, to each Seller's offerings of service for sale or other information (messages) posted on an OASIS Node. The Seller in any/all subsequent Template submissions, that would result in a modification to or deletion of that specific offering or message, shall reference this identifier. Optionally, Customers may also refer to this POSTING_REF in their subsequent purchase requests to aid in identifying the specific offering associated with the purchase request.
- c. Sellers may aggregate portions of several previous transmission service reservations to create a new offering to be posted on an OASIS Node. When all or a portion of such offerings are sold, the Seller (original Customer) is obligated to notify the Primary Provider of the sale/assignment by inserting appropriate reassignment information on the OASIS Node (via the *transsell* or *transassign* Templates) or by some other approved method. This reassignment information consists of the ASSIGNMENT_REF value assigned to the original reservation(s) and the time interval and

capacity amount(s) being reassigned to the new reservation. These values are retained in the REASSIGNED_REF, REASSIGNED_START_TIME, REASSIGNED_STOP_TIME, and REASSIGNED_CAPACITY Data Elements.

- d. Sellers may identify their service offerings received from Customers through the Seller supplied value specified for the SALE_REF Data Element.
- e. Customers may track their purchase requests through the Customer supplied values specified for the DEAL_REF and REQUEST_REF Data Elements. Customers may also use POSTING_REF and SALE_REF in their purchase requests to refer back to posted offerings.

002-4.2.12 Linking of Ancillary Services to Transmission Services

The requirements related to ancillary services are shown in **transoffering** (and updated using **transupdate**) using the ANC_SVC_REQ Data Element containing the following permitted values:

SC:x; RV:x; RF:x; EI:x; SP:x; SU:x;

Where SC, RV, RF, EI, SP and SU are the ancillary services 1 through 6 described in the ProForma Tariff,

- SC - Scheduling, system Control and dispatch
- RV - Reactive supply and Voltage control
- RF - Regulation and Frequency response
- EI - Energy Imbalance
- SP - SPinning reserve
- SU - SUPplemental reserve

and where x={M,R,O,U} means one of the following:

- Mandatory, which implies that the Primary Provider must provide the ancillary service
- Required, which implies that the ancillary service is required, but not necessarily from the Primary Provider
- Optional, which implies that the ancillary service is not necessarily required, but could be provided
- Unknown, which implies that the requirements for the ancillary service are not known at this time

Ancillary services may be requested by a User from the Provider at the same time as transmission services are requested via the transrequest Template, by entering the special codes into ANC_SVC_LINK to represent the Proforma ancillary services 1 through 6 (or more) as follows:

SC:(AA[:xxx[:yyy[:nnn]]]); RV: (AA[:xxx[:yyy[:nnn]]]); RF:
(AA[:xxx[:yyy[:nnn]]]);
EI: (AA[:xxx[:yyy[:nnn]]]); SP: (AA[:xxx[:yyy[:nnn]]]); SU:
(AA[:xxx[:yyy[:nnn]]]); {Registered}:(AA[:xxx[:yyy[:nnn]]])

where AA is the appropriate PRIMARY_PROVIDER_CODE, SELLER_CODE, or CUSTOMER_CODE, and represents the company providing the ancillary services. "AA" may be unspecified for "xxx" type identical to "FT", in which case the ":" character must be present and precede the "FT" type. If multiple "AA" terms are necessary, then each "AA" grouping will be enclosed within

parenthesis, with the overall group subordinate to the AS_TYPE specified within parenthesis and where xxx represents either:

- "FT" to indicate that the Customer will determine ancillary services at a future time, or
- "SP" to indicate that the Customer will self-provide the ancillary services, or
- "RQ" to indicate that the Customer is asking the OASIS Node to initiate the process for making an ancillary services reservation with the indicated Provider or Seller on behalf of the Customer. The Customer must then continue the reservation process with the Provider or Seller. If the transmission services request is for preconfirmed service, then the ancillary services shall also be preconfirmed, or
- "AR" to indicate an assignment reference number sequence follows.

The terms "yyy" and "nnn" are subordinate to the xxx type of "AR". yyy represents the ancillary services reservation number (ASSIGNMENT_REF) and nnn represents the capacity of the reserved ancillary services. Square brackets are used to indicate optional elements and are not used in the actual linkage itself. Specifically, the :yyy is applicable to only the "AR" term and the :nnn may optionally be left off if the capacity of ancillary services is the same as for the transmission services, and optionally multiple ancillary reservations may be indicated by additional (xxx[:yyy[:nnn]]) enclosed within parenthesis. If no capacity amount is indicated, the required capacity is assumed to come from the ancillary reservations in the order indicated in the codes, on an "as-needed" basis.

Examples for the handling of ancillary service linkage to transmission service requests/reservations are presented in the OASIS Implementation Guide Standard WEQ-013-4.2.

002-4.2.13 RESERVED

002-4.2.13.1 RESERVED

002-4.2.13.2 RESERVED

002-4.2.13.3 RESERVED

002-4.2.13.4 RESERVED

002-4.2.13.5 RESERVED

002-4.2.13.6 RESERVED

002-4.2.13.7 RESERVED

002-4.2.13.8 RESERVED

002-4.2.13.9 RESERVED

002-4.2.13.10 RESERVED

002-4.3 **TEMPLATE DESCRIPTIONS**

The following OASIS Templates define the Data Elements in fixed number and sequence which must be provided for all data transfers to and from the OASIS Nodes. The definitions of the Data Elements are listed in Open Access Same-Time Information System (OASIS) Data Dictionary WEQ-003. TSIPs must provide a more detailed supplemental definition of the list of Sellers, Paths, Point of Receipt (POR), Point of Delivery (POD), Capacity Types, Ancillary Service Types and Templates online, clarifying how the terms are being used (see *list* Template). If POR and POD are not used, then Path Name must include directionality. Many of the Templates represent query-response interactions between the User and the OASIS Node. These interactions are indicated by the "Query" and "Response" section respectively of each Template. Some, as noted in their descriptions, are Input information, sent from the User to the OASIS Node. The Response is generally a mirror of the Input, although in some Templates, the TSIP must add some information.

002-4.3.1 **Template Summary**

The following table provides a summary of the process areas, and Templates to be used by Users to query information that will be downloaded or to upload information to the Primary Providers. These processes define the functions that must be supported by an OASIS Node.

Process Area	Process Name	Template(s)
4.3.2 Query/Response of Posted Services Being Offered	Query/Response Transmission Capacity Offerings	transoffering
	Query/Response Ancillary Service Offerings	ancoffering
4.3.3 Query/Response of Services Information	Query/Response Transmission Services	transserv
	Query/Response Ancillary Services	ancserv
4.3.4 Query/Response of Schedule details and Curtailments, Security Events, Reductions, and System Data	Query/Response Transmission Schedules and Curtailments	scheduledetail
	Query/Response Security Events	security
	Query/Response Reductions to Reserved Capacity	reduction
	Query/Response Transmission System Data	systemdata

Process Area	Process Name	Template(s)
4.3.5 Query/Response of Lists of Information	Query/Response List of Sellers, Paths, PORs, PODs, Capacity Types, Ancillary Service Types, Templates	list
4.3.6 Purchase Transmission Services	Request Purchase of Transmission Services (Input)	transrequest
	Query/Response Status of Transmission Service Request	transstatus
	Seller Approves Purchase (Input)	transsell
	Customer Confirm/Withdraw Purchase of Transmission Service (Input)	transcust
	Seller Reassign Rights (Input)	transassign
4.3.7 Seller Posting of Transmission Service	Seller Post Transmission Service for Sale (Input)	transpost
	Seller Modify (Remove) Transmission Service for Sale (Input)	transupdate
4.3.8 Purchase of Ancillary Service	Request Purchase of Ancillary Service (Input)	ancrequest
	Query/Response Status of Ancillary Service Request	ancstatus
	Seller Approves Purchase of Ancillary Service (Input)	ancsell
	Customer Accept/Withdraw Purchase of Ancillary Service (Input)	anccust
	Seller Reassign Rights (Input)	anccassign
4.3.9 Seller Post Ancillary Service	Seller Post Ancillary Service (Input)	ancpost
	Seller Modify (Remove) Ancillary Service for Sale (Input)	ancupdate

Process Area	Process Name	Template(s)
4.3.10 Informal Messages	Post Want Ads (Input)	messagepost
	Query/Response Want Ads	message
	Delete Want Ad (Input)	messagedelete
	Personnel Transfers	personnel
	Discretion	discretion
	Standards of Conduct	stdconduct
4.3.11 Audit Log	Query/Response Audit Log	(various)

002-4.3.2 Query/Response of Posted Services Being Offered

The following Templates define the information to be posted on services offered for sale. All discounts for service negotiated by a Customer and Primary Provider (as Seller) at a price less than the currently posted offering price shall be posted on OASIS Nodes in such a manner as to be viewed using these Templates. All secondary market and/or third-party posting and Primary Provider offerings for like services shall also be viewed using these Templates. The Query must start with the standard header Query Variable Data Elements, listed in Section 4.2.6.2, and may include any valid combination of the remaining Query Variables, shown below in the Templates. START_TIME and STOP_TIME is the requested time interval for the Response to show all offerings which intersect that interval (see Section 4.2.6.6). TIME_OF_LAST_UPDATE can be used to specify all services updated since a specific point in time. Query variable listed with an asterisk (*) can have at least 4 multiple instances defined by the user in making the query. In the Response, OFFER_START_TIME and OFFER_STOP_TIME indicate the "request time window" within which a customer must request a service in order to get the posted OFFER_PRICE. START_TIME and STOP_TIME indicate the time frame that the service is being offered. The SERVICE_DESCRIPTION Data Element shall define any attributes and/or special terms and conditions applicable to the offering that are not listed under the standard SERVICE_DESCRIPTION associated with the product definition supplied in the *transserv* or *ancserv* Templates. SERVICE_DESCRIPTION shall be null if there are no unique attributes or terms associated with the offering.

002-4.3.2.1 Transmission Capacity Offerings Available for Purchase (transoffering)

Transmission Services Offerings Available for Purchase (*transoffering*) is used to view transmission services posted for sale by the Primary Provider or Resellers. At a minimum this Template must be used to view each increment and type of service required to be offered under applicable regulations and the Primary Provider's tariffs. The POSTING_REF is set by the TSIP when an offering is posted and can be used in *transrequest* to refer to a particular

offering. A User may query information about services available from all sellers for the time frame specified by the SERVICE_INCREMENT Data Element, namely, hourly, daily, weekly, monthly, or yearly.

Template: **transoffering**

1. Query

PATH_NAME*
 SELLER_CODE*
 SELLER_DUNS*
 POINT_OF_RECEIPT*
 POINT_OF_DELIVERY*
 SERVICE_INCREMENT*
 TS_CLASS*
 TS_TYPE*
 TS_PERIOD*
 TS_WINDOW*
 TS_SUBCLASS*
 START_TIME (of transmission services)
 STOP_TIME (of transmission services)
 POSTING_REF
 TIME_OF_LAST_UPDATE

2. Response

The response is one or more records showing the requested service information. Note that the Customer will receive as a series of records spanning all the SELLER_CODEs, PATH_NAMEs, PORs, PODs, TS_xxx, and the START_TIME/STOP_TIME specified in the query. The SALE_REF is a value provided by the SELLER to identify the transmission service product being sold. The ANC_SVC_REQ indicates all ancillary services required for the specified transmission services. All Template elements are defined in the Data Element Dictionary.

TIME_OF_LAST_UPDATE
 SELLER_CODE
 SELLER_DUNS
 PATH_NAME
 POINT_OF_RECEIPT
 POINT_OF_DELIVERY
 INTERFACE_TYPE
 OFFER_START_TIME
 OFFER_STOP_TIME
 START_TIME
 STOP_TIME
 CAPACITY (If null, then look in seller comments for information.)
 SERVICE_INCREMENT
 TS_CLASS
 TS_TYPE
 TS_PERIOD

TS_WINDOW
TS_SUBCLASS
ANC_SVC_REQ
SALE_REF
POSTING_REF
CEILING_PRICE
OFFER_PRICE
PRICE_UNITS
SERVICE_DESCRIPTION (if null, then look at *transserv*)
NERC_CURTAILMENT_PRIORITY
OTHER_CURTAILMENT_PRIORITY
SELLER_NAME
SELLER_PHONE
SELLER_FAX
SELLER_EMAIL
SELLER_COMMENTS

002-4.3.2.2 Ancillary Services Available for Purchase (ancoffering)

Ancillary Services Available for Purchase (**ancoffering**) is used to provide information regarding the ancillary services that are available for sale by all sellers (both Primary Provider and Third Party Sellers).

Template: **ancoffering**

1. **Query**

SELLER_CODE*
SELLER_DUNS*
CONTROL_AREA*
SERVICE_INCREMENT*
AS_TYPE*
START_TIME
STOP_TIME
POSTING_REF
TIME_OF_LAST_UPDATE

2. **Response**

TIME_OF_LAST_UPDATE
SELLER_CODE
SELLER_DUNS
CONTROL_AREA
OFFER_START_TIME
OFFER_STOP_TIME
START_TIME
STOP_TIME
CAPACITY
SERVICE_INCREMENT
AS_TYPE
SALE_REF

POSTING_REF
CEILING_PRICE
OFFER_PRICE
PRICE_UNITS
SERVICE_DESCRIPTION (if blank, then look at *ancserv*)
SELLER_NAME
SELLER_PHONE
SELLER_FAX
SELLER_EMAIL
SELLER_COMMENTS

002-4.3.3 Query/Response of Services Information

002-4.3.3.1 Transmission Services (*transserv*)

Transmission Services (*transserv*) is used to provide additional information regarding the transmission services SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD, TS_SUBCLASS, TS_WINDOW, NERC_CURTAILMENT_PRIORITY, and OTHER_CURTAILMENT_PRIORITY that are available for sale by a Provider in the Templates in Section 4.3.2. This Template is used to summarize Provider tariff information for the convenience of the User. The Provider also sets PRICE_UNITS with this Template.

Template: **transserv**

1. **Query**

TIME_OF_LAST_UPDATE

2. **Response**

TIME_OF_LAST_UPDATE
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD
TS_WINDOW
TS_SUBCLASS
CEILING_PRICE
PRICE_UNITS
SERVICE_DESCRIPTION
NERC_CURTAILMENT_PRIORITY
OTHER_CURTAILMENT_PRIORITY
TARIFF_REFERENCE

002-4.3.3.2 Ancillary Services (ancserv)

Ancillary Services (***ancserv***) is used to provide additional information regarding the ancillary services that are available for sale by a Provider in the Templates in Section 4.3.2. This Template is used to summarize Provider tariff information for the convenience of the User. The Provider also sets PRICE_UNITS with this Template.

Template: **ancserv**

1. **Query**

TIME_OF_LAST_UPDATE

2. **Response**

TIME_OF_LAST_UPDATE
 SERVICE_INCREMENT
 AS_TYPE
 CEILING_PRICE
 PRICE_UNITS
 SERVICE_DESCRIPTION
 TARIFF_REFERENCE

002-4.3.4 Query/Response of Schedules and Curtailments, Security Events, Reductions, and System Data

002-4.3.4.1 Transaction Schedule (scheduledetail)

Transaction Schedule (***scheduledetail***) provides information on the scheduled uses of the Provider’s transmission system and any curtailments or interruption thereof. Posting of transmission service schedule information shall be in accordance with regulatory requirements, and reflect scheduled uses of reserved capacity to a level of detail that such schedules are subject to a Provider’s application of transmission security procedures and policies regarding curtailment and interruptions. There is no restriction on the number of transaction schedule records that may refer to a given transmission reservation at a given point in time.

The Query Variables ASSIGNMENT_REF, SELLER_CODE, SELLER_DUNS, CUSTOMER_CODE, CUSTOMER_DUNS, SERVICE_INCREMENT, TS_CLASS, TS_TYPE, and TS_PERIOD act to select those transmission reservations for which all applicable transaction schedule information is to be returned. The PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY Query Variables select all applicable interchange transaction schedule records that use the specified path, point of receipt, and/or point of delivery. The TIME_OF_LAST_UPDATE, START_TIME, and STOP_TIME Query Variables select those particular interchange transaction schedule records updated and/or effective: 1) on or after a particular point in time (START_TIME alone), 2) before a particular point in time (STOP_TIME alone), or 3) between particular points in time (START_TIME and STOP_TIME). The

TRANSACTION_ID Query Variable selects all applicable schedule information records associated with that particular schedule. Note that the format of TRANSACTION_ID may be Transmission Provider specific.

Each **scheduledetail** Template record returned in response to a query shall include information associated with:

1. information specifically related to the scheduled transaction,
2. information from all applicable OASIS transmission reservations used to support the scheduled interchange transaction, and
3. information related to any curtailment or interruption of service (if applicable), including a Transmission Provider's refusal to accept or begin a Customer's proposed interchange transaction for reliability or economic reasons (as allowed by the Provider's Tariff).

Information to be supplied in each **scheduledetail** Template's response records related to the scheduled interchange are, SCHEDULE_REF, TRANSACTION_ID, PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY, GCA_CODE, LCA_CODE, SOURCE, SINK, SCHEDULE_PRIORITY, START_TIME, STOP_TIME, SCHEDULE_REQUESTED, and SCHEDULE_GRANTED.

The posting and availability of schedule and curtailment information on OASIS shall be in accordance with FERC Policy.

SCHEDULE_REF uniquely identifies a particular posting of schedule information. SCHEDULE_REF would vary with each record of data returned in response to a **scheduledetail** query. TRANSACTION_ID, if applicable/available, contains a unique identifier associated with an interchange transaction that may span multiple SCHEDULE_REF records. When available or applicable, the TRANSACTION_ID Data Element should reflect any industry-recognized transaction identifier rather than a Provider specific internal identifier (e.g., the NERC electronic tagging "tag-id"). PATH_NAME, POINT_OF_RECEIPT, and POINT_OF_DELIVERY identify the Transmission Provider's specific transmission resources used by the scheduled transaction, and would typically be identical to the corresponding Data Elements associated with the OASIS transmission reservation used to support the schedule. When known, the GCA_CODE and LCA_CODE identify the NERC registered Control Area acronyms associated with the ultimate generation and load control areas respectively. When known or required to more specifically identify the ultimate points of generation and load, the SOURCE and SINK elements identify service points within the generation and load Control Areas respectively. SCHEDULE_PRIORITY identifies the relative priority of this particular interchange transaction as compared to all other scheduled transactions with respect to the application of curtailments or interruptions. SCHEDULE_PRIORITY would typically reflect the curtailment priority Data Elements associated with the OASIS transmission reservation used to support the schedule (i.e., NERC_CURTAILMENT_PRIORITY or OTHER_CURTAILMENT_PRIORITY). START_TIME and STOP_TIME designate the particular time interval represented by this record associated with the scheduled transaction. Note that multiple response records may be returned for a given scheduled transaction when information associated with the schedule vary over time (e.g., SCHEDULE_REQUESTED, SCHEDULE_GRANTED, SCHEDULE_LIMIT, etc.), but that **scheduledetail**

Template response records for a given scheduled transaction should never overlap in time. SCHEDULE_REQUESTED reflects the MW value requested to be scheduled by the Customer during the hour, and SCHEDULE_GRANTED reflects the MW value actually scheduled by the Transmission Provider at either the point of receipt or delivery, whichever is larger, over the START_TIME/STOP_TIME time interval. When SCHEDULE_REQUESTED exceeds SCHEDULE_GRANTED, a curtailment or interruption is in effect and additional information shall be returned in the record.

Information in each **scheduledetail** Template's response record related to the OASIS transmission reservation(s) supporting the scheduled transaction includes ASSIGNMENT_REF, SELLER_CODE, SELLER_DUNS, CUSTOMER_CODE, CUSTOMER_DUNS, AFFILIATE_FLAG, SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD, TS_WINDOW, TS_SUBCLASS, NERC_CURTAILMENT_PRIORITY, OTHER_CURTAILMENT_PRIORITY, and CAPACITY_USED. Transaction schedules that are supported by the use of multiple OASIS transmission reservations return the information attributable to each individual transmission reservation using continuation records (i.e., records beginning with CONTINUATION_FLAG = 'Y'). Each continuation record shall also include the SCHEDULE_REF identifier from the first (CONTINUATION_FLAG = 'N') record. CAPACITY_USED reflects the peak MW amount of the reservation used to support the scheduled transaction; the sum of CAPACITY_USED over all continuation records (if applicable) should equal the SCHEDULE_GRANTED.

Transaction schedules that were either "denied or interrupted" (ref. 18 CFR 37.6(a)(4)) shall include information in the **scheduledetail** Template's response related to the reason the transaction could not be started or continued at the requested MW amount. The information returned shall include: PROVIDER_ACTION, SCHEDULE_LIMIT, CURTAILMENT_OPTIONS, SECURITY_REF, INITIATING_PARTY, RESPONSIBLE_PARTY, PROCEDURE_NAME, PROCEDURE_LEVEL, FACILITY_LOCATION, FACILITY_NAME, FACILITY_CLASS, and FACILITY_LIMIT_TYPE. If there are no restrictions to the scheduled transaction, these Data Elements shall all be returned as null.

PROVIDER_ACTION indicates the particular action taken by the Transmission Provider with respect to the scheduled transaction; specific values to be returned are, DENIED if the schedule was not started as requested, CURTAILED if the scheduled MW was limited for reliability reasons, or INTERRUPTED if the scheduled MW was limited for economic reasons. SCHEDULE_LIMIT reflects the **maximum** MW value over the START_TIME/STOP_TIME interval that the Provider has determined can be scheduled. CURTAILMENT_OPTIONS defines any options the Customer may exercise to reinstate all or part of the proposed schedule. SECURITY_REF, INITIATING_PARTY, RESPONSIBLE_PARTY, PROCEDURE_NAME, PROCEDURE_LEVEL, FACILITY_NAME, FACILITY_CLASS, and FACILITY_LIMIT_TYPE provide information related to the specific transmission security event that prompted the Transmission Provider's denial, curtailment or interruption of the proposed scheduled transaction (see **security** Template).

Template: ***scheduledetail***

1. **Query**

PATH_NAME*
SELLER_CODE*
SELLER_DUNS*
CUSTOMER_CODE*
CUSTOMER_DUNS*
POINT_OF_RECEIPT*
POINT_OF_DELIVERY*
SERVICE_INCREMENT*
TS_CLASS*
TS_TYPE*
TS_PERIOD*
TS_WINDOW*
TS_SUBCLASS*
START_TIME
STOP_TIME
TIME_OF_LAST_UPDATE
ASSIGNMENT_REF
TRANSACTION_ID

2. **Response**

CONTINUATION_FLAG
TIME_OF_LAST_UPDATE
SCHEDULE_REF
TRANSACTION_ID
PATH_NAME
POINT_OF_RECEIPT
POINT_OF_DELIVERY
GCA_CODE
LCA_CODE
SOURCE
SINK
SCHEDULE_PRIORITY
START_TIME
STOP_TIME
SCHEDULE_REQUESTED
SCHEDULE_GRANTED
ASSIGNMENT_REF
SELLER_CODE
SELLER_DUNS
CUSTOMER_CODE
CUSTOMER_DUNS
AFFILIATE_FLAG
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD

TS_WINDOW
 TS_SUBCLASS
 NERC_CURTAILMENT_PRIORITY
 OTHER_CURTAILMENT_PRIORITY
 CAPACITY_USED
 (if the transaction is subject to curtailment:)
 PROVIDER_ACTION
 SCHEDULE_LIMIT
 CURTAILMENT_OPTIONS
 SECURITY_REF
 INITIATING_PARTY (e.g, CA/TP code)
 RESPONSIBLE_PARTY (e.g., SC code)
 PROCEDURE_NAME (e.g., "NERC TLR", or registered)
 PROCEDURE_LEVEL (e.g., "2a", "3")
 FACILITY_LOCATION (e.g, "INTERNAL" or
 "EXTERNAL")
 FACILITY_NAME
 FACILITY_CLASS (e.g., transformer, etc.)
 FACILITY_LIMIT_TYPE (e.g, thermal, stability, etc.)

002-4.3.4.2 Security Event (security)

Security Event (**security**) provides information on transmission security/reliability events that may impact the Provider's ability to schedule transactions. The TIME_OF_LAST_UPDATE, START_TIME, and STOP_TIME Query Variables select those particular security event postings updated and/or effective: 1) on or after a particular point in time (START_TIME alone), 2) before a particular point in time (STOP_TIME alone), or 3) between particular points in time (START_TIME and STOP_TIME).

The SECURITY_REF Data Element is a unique identifier assigned to each posting of security related information; SECURITY_REF would vary with each record of data returned in response to a **security** query. The EVENT_ID Data Element, when available, should reflect any regional or interconnection-wide recognized security event identifier for events that are of greater scope than those administered locally by the Provider (e.g., a NERC Reliability Coordinator assigned identifier corresponding to a particular implementation of the NERC TLR procedure). SECURITY_TYPE identifies the type of information posted for the event; restricted values are OUTAGE for postings reflecting the state of critical transmission facilities, and LIMIT for postings reflecting the implementation of security procedures to limit or reduce scheduled transactions. The INITIATING_PARTY identifies by Balancing Authority, Reliability Coordinator or Transmission Provider code the entity calling for the "outage" or "limit", and RESPONSIBLE_PARTY identifies the entity (Balancing Authority, Transmission Provider, or Reliability Coordinator) responsible for administering any resulting security procedure that may be instituted.

PROCEDURE_NAME and PROCEDURE_LEVEL reflect the specific security procedure and, if applicable, the step, stage, or level within that procedure being implemented by RESPONSIBLE_PARTY (e.g., NERC TLR is a recognized security procedure, and level "2a" is a step within that procedure).

FACILITY_NAME, FACILITY_CLASS, and FACILITY_LIMIT_TYPE provide specific information related to the impacted transmission facility. FACILITY_LOCATION identifies if the impacted facility is "INTERNAL" or "EXTERNAL" relative to the Transmission Provider's scope of authority over the named facility.

START_TIME and STOP_TIME reflect the period of time encompassed by the particular security event posted. In cases where a security procedure is invoked and then progresses through various levels or stages, there shall be separate postings for each of those stages declared by RESPONSIBLE_PARTY with START_TIME and STOP_TIME reflecting the period of time each specific level of the procedure was in effect.

The use of the **security** Template to convey information related to major transmission facility outages (SECURITY_TYPE = OUTAGE) is at the discretion of the Provider. Its definition in this Template is intended to formalize the posting of facility outage information in an OASIS Template structure where such information prior to implementation of this Template had been posted in a free-form manner.

Template: **security**

1. **Query**

START_TIME
 STOP_TIME
 TIME_OF_LAST_UPDATE
 SECURITY_REF
 EVENT_ID
 SECURITY_TYPE
 INITIATING_PARTY
 RESPONSIBLE_PARTY
 PROCEDURE_NAME
 FACILITY_CLASS
 FACILITY_LIMIT_TYPE
 FACILITY_LOCATION

2. **Response**

TIME_OF_LAST_UPDATE
 SECURITY_REF
 EVENT_ID
 SECURITY_TYPE ("LIMIT" or "OUTAGE")
 INITIATING_PARTY (e.g., CA/TP code)
 RESPONSIBLE_PARTY (e.g., SC code)
 PROCEDURE_NAME (e.g., "NERC TLR", or registered)
 PROCEDURE_LEVEL (dependent on PROCEDURE_NAME)
 FACILITY_CLASS (e.g., "FLOWGATE", "LINE", etc.)
 FACILITY_LIMIT_TYPE (e.g., "THERMAL", "STABILITY", etc.)
 FACILITY_LOCATION ("INTERNAL" or "EXTERNAL")
 FACILITY_NAME (e.g., path or flowgate name)
 START_TIME

STOP_TIME

002-4.3.4.3 Transmission Reservation Reduction (reduction)

The Transmission Reservation Reduction (**reduction**) Template provides information related to the reduction in the Transmission Customer's rights to schedule use of all or a portion of capacity reserved for a given transmission reservation. Specific cases where such a reduction in reserved capacity would be returned in response to this query Template include: secondary market sales (as posted using the **transassign** or **transsell** Templates via the REASSIGNED_REF, etc., Data Elements), a Transmission Provider's interruption of the reservation to accommodate higher priority reservations over the interruption interval (partial displacement), etc.

The ASSIGNMENT_REF Query Variable is required and specifies the transmission reservation whose reductions in reserved capacity (if any) are to be returned. The START_TIME and STOP_TIME Query Variables allow the user to select the specific time interval over which the reductions in reserved capacity are to be returned (e.g., return all reductions in June for a year long reservation); by default all reductions over the life of the reservation are returned.

In response to a **reduction** Template query, each primary record returned (CONTINUATION_FLAG = N) shall include the ASSIGNMENT_REF, CAPACITY_GRANTED and CAPACITY_AVAILABLE in MWs over the interval from START_TIME to STOP_TIME. CAPACITY_AVAILABLE is derived from the transmission reservation's CAPACITY_GRANTED less all reductions (if any) in reserved capacity over the interval from START_TIME to STOP_TIME as specified in the CAPACITY_REDUCED (as negative valued MWs) Data Element. The REDUCTION_TYPE, and REDUCTION_REASON Data Elements describe the circumstances and IMPACTING_REF references the associated transmission reservation (if applicable) that caused the reduction in capacity.

If no reductions in reserved capacity have been posted against the reservation, CAPACITY_AVAILABLE will equal CAPACITY_GRANTED and the REDUCTION_TYPE, REDUCTION_REASON, IMPACTING_REF and CAPACITY_REDUCED Data Elements will be null. This response information is equivalent to the CAPACITY_GRANTED, START_TIME, and STOP_TIME information that would be returned on execution of the **transstatus** Template.

If the CAPACITY_AVAILABLE over the interval from START_TIME to STOP_TIME is the result of more than one action reducing reserved capacity (e.g., multiple secondary market sales for the same time period), each action reducing capacity will be returned in continuation records (CONTINUATION_FLAG = Y) containing the ASSIGNMENT_REF, REDUCTION_TYPE, REDUCTION_REASON, IMPACTING_REF and CAPACITY_REDUCED Data Elements. If the action is another reservation (e.g. secondary market sale) the REASSIGNED_CAPACITY from that reservation will be shown as a negative value in CAPACITY_REDUCED.

Template: **reduction**

1. **Query**

START_TIME
 STOP_TIME
 ASSIGNMENT_REF* (must be specified)

2. **Response**

CONTINUATION_FLAG
 ASSIGNMENT_REF
 CAPACITY_GRANTED
 CAPACITY_AVAILABLE
 START_TIME
 STOP_TIME
 REDUCTION_TYPE (e.g., REDIRECT, INTERRUPTION, RESALE, DISPLACEMENT, etc.)
 REDUCTION_REASON
 IMPACTING_REF (if applicable)
 CAPACITY_REDUCED

002-4.3.4.4 System Data (systemdata)

The System Data (**systemdata**) Template is used to query specific, time varying data that is posted on a PATH, POINT_OF_RECEIPT, and/or POINT_OF_DELIVERY basis. The SYSTEM_ATTRIBUTE Data Element defines the type of information returned in the Template response. The restricted values for SYSTEM_ATTRIBUTE are,

- CBM – Capacity Benefit Margin
- TRM – Transmission Reliability Margin
- TTC – Total Transmission Capability
- NATC – Non-recallable (Firm) Available Transmission Capability
- RATC – Recallable (Non-firm) Available Transmission Capability
- {registered} – Provider specific registered name for the data posted

Transmission Providers obligated to post values for one or more of the defined SYSTEM_ATTRIBUTES on specific transmission paths over time (e.g., hourly, then daily, etc.) as called forth in FERC regulations shall return these posted values via the **systemdata** Template. If SYSTEM_ATTRIBUTE is omitted in the query, then all attributes defined by the transmission provider are returned, subject to the other query attributes constraints. A given SYSTEM_ATTRIBUTE may take on only one value at any given point in time. Note that TTC and ATC information may also be viewed using the **transoffering** Template at the Transmission Provider's discretion. Offers of service posted by Primary Providers as viewed with the **transoffering** Template should reflect the applicable ATC(s) posted via **systemdata** in the CAPACITY Data Element.

Template: **systemdata**

1. **Query**

PATH_NAME*
 POINT_OF_RECEIPT*
 POINT_OF_DELIVERY*
 SYSTEM_ATTRIBUTE*
 START_TIME
 STOP_TIME
 TIME_OF_LAST_UPDATE

2. **Response (acknowledgment)**

POSTING_REF
 PATH_NAME
 POINT_OF_RECEIPT
 POINT_OF_DELIVERY
 SYSTEM_ATTRIBUTE
 START_TIME
 STOP_TIME
 ATTRIBUTE_VALUE
 ATTRIBUTE_UNITS
 TIME_OF_LAST_UPDATE

002-4.3.5 **Query/Response of Lists of Information**

002-4.3.5.1 List (list)

List (*list*) is used to provide lists of valid names. The minimum set of lists is LIST, SELLER_CODE, PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY, SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD, TS_SUBCLASS, TS_WINDOW, NERC_CURTAILMENT_PRIORITY, REQUEST_TYPE, ANC_SERVICE_POINT, FACILITY_CLASS, FACILITY_LIMIT_TYPE, PROCEDURE_NAME, SYSTEM_ATTRIBUTE, SECURITY_TYPE, FACILITY_LOCATION, OTHER_CURTAILMENT_PRIORITY, AS_TYPE, CATEGORY, and TEMPLATE. The information returned by the *list* Template may be used as values for the associated OASIS Data Elements to query information, post or request services.

Template: **list**

1. **Query**

LIST_NAME
 TIME_OF_LAST_UPDATE

2. Response

TIME_OF_LAST_UPDATE
LIST_NAME
LIST_ITEM
LIST_ITEM_DESCRIPTION

002-4.3.6 Purchase Transmission Services

The following Templates shall be used by Customers and Sellers to transact purchases of services.

002-4.3.6.1 Customer Capacity Purchase Request (transrequest)

The Customer Capacity Purchase Request (Input) (*transrequest*) is used by the Customer to request the purchase of transmission services or request changes to previously submitted reservations for transmission services. The response simply acknowledges that the Customer's request was received by the OASIS Node. It does not imply that the Seller has received the request. Inputting values into the reference Data Elements is optional.

CUSTOMER_CODE and CUSTOMER_DUNS shall be determined from the registered connection used to input the request.

Supporting "profiles" of service, which request different capacities (and optionally price) for different time periods within a single request, is at the discretion of the Primary Provider. Continuation records may be used to indicate requests for these service profiles; use of continuation records is only supported when using the CSV Format upload of Template data. Each segment of a profile is represented by the Data Elements CAPACITY_REQUESTED, START_TIME, and STOP_TIME, which define the intervals in time over which a non-zero MW demand is being requested. The initial segment of a profile is defined by the CAPACITY_REQUESTED, START_TIME and STOP_TIME Data Elements specified in the first/only record submitted; subsequent segments are specified in continuation records each containing the appropriate CAPACITY_REQUESTED, START_TIME and STOP_TIME values defining the segment. Providers may optionally support price negotiation on segments of a profiled reservation request. In this case, the BID_PRICE Data Element is also included in each continuation record. If the BID_PRICE Data Element is not specified in the continuation records, the BID_PRICE specified in the first/only record submitted will be applied to the entire reservation request.

For requesting transmission services which include multiple paths, the following fields may be specified using continuation records: PATH_NAME, POINT_OF_RECEIPT, and POINT_OF_DELIVERY. Supporting multiple paths or multiple POINT_OF_RECEIPT and POINT_OF_DELIVERY is at the discretion of the Provider.

The START_TIME and STOP_TIME indicate the requested period of service.

When the request is received at the OASIS Node, the TSIP assigns a unique ASSIGNMENT_REF value and queues the request with a time stamp. The STATUS for the request is QUEUED. The IMPACTED counter is initially set to 0. If the new request is not modifying an existing reservation (as indicated by a null value for the RELATED_REF Data Element) and the SELLER is the Primary Provider, REQUEST_TYPE must either be specified as "ORIGINAL" or be left null and OASIS will substitute the default value of "ORIGINAL". If the new request is not modifying an existing reservation and the SELLER is not the Primary Provider, REQUEST_TYPE must either be specified as "RESALE" or be left null and OASIS will substitute the default value of "RESALE".

If the new request is modifying an existing transmission reservation, the Data Elements REQUEST_TYPE and RELATED_REF must be entered. RELATED_REF contains the ASSIGNMENT_REF for the transmission reservation being modified, and REQUEST_TYPE must be one of MATCHING, REDIRECT, DEFERRAL, RENEWAL, RELINQUISH, or a Primary Provider registered value.

Specification of a value YES in the PRECONFIRMED field authorizes the TSIP to automatically change the STATUS field in the *transstatus* Template to CONFIRMED when that request is ACCEPTED by the Seller.

Template: **transrequest**

1. **Input**

CONTINUATION_FLAG
 SELLER_CODE (Primary or Reseller)
 SELLER_DUNS
 PATH_NAME
 POINT_OF_RECEIPT
 POINT_OF_DELIVERY
 SOURCE
 SINK
 CAPACITY_REQUESTED
 SERVICE_INCREMENT
 TS_CLASS
 TS_TYPE
 TS_PERIOD
 TS_WINDOW
 TS_SUBCLASS
 STATUS_NOTIFICATION
 START_TIME
 STOP_TIME
 BID_PRICE
 PRECONFIRMED
 ANC_SVC_LINK
 POSTING_REF (Optionally set by Customer)
 SALE_REF (Optionally set by Customer)
 REQUEST_REF (Optionally set by Customer)
 DEAL_REF (Optionally set by Customer)

CUSTOMER_COMMENTS
REQUEST_TYPE (Required for request changes)
RELATED_REF (Required for request changes)

2. **Response** (acknowledgment)

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF (assigned by TSIP)
SELLER_CODE
SELLER_DUNS
PATH_NAME
POINT_OF_RECEIPT
POINT_OF_DELIVERY
SOURCE
SINK
CAPACITY_REQUESTED
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD
TS_WINDOW
TS_SUBCLASS
STATUS_NOTIFICATION
START_TIME
STOP_TIME
BID_PRICE
PRECONFIRMED
ANC_SVC_LINK
POSTING_REF
SALE_REF
REQUEST_REF
DEAL_REF
CUSTOMER_COMMENTS
REQUEST_TYPE
RELATED_REF
ERROR_MESSAGE

002-4.3.6.2 Status of Customer Purchase Request (*transstatus*)

The Status of Customer Purchase Request (***transstatus***) is provided upon the request of any Customer or Provider to indicate the current status of one or more reservation records. Users may also view any transaction's status. However, the SOURCE and SINK may be masked for User requests until Transmission Providers must make source and sink information available at the time the request status posting is updated to show that a transmission request is confirmed.

Continuation records may be returned in association with a transmission reservation to convey information regarding: 1) sale or assignment of transmission rights on the secondary market (reassignments), 2) profiled

requests, or 3) service over multiple paths Each continuation record associated with a transmission reservation shall be identified by the CONTINUATION_FLAG Data Element set to 'Y' and include the ASSIGNMENT_REF Data Element.

When a transmission reservation request acquires its rights to transmission service as the result of a sale or assignment of transmission rights on the secondary market, the identity of the original reservation, capacity, and time interval over which rights are assigned to the new reservation are defined by the Data Elements REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME. These Data Elements will be returned in continuation records when more than one set of reassignment information is associated with a reservation.

If the transmission reservation has an associated profile, either as a result of the submission of CAPACITY_REQUESTED varying over time (support for Customer reservation profiles is at the discretion of the Provider) or due to the Provider offering partial service specifying a CAPACITY_GRANTED varying over time, then CAPACITY_GRANTED, CAPACITY_REQUESTED, START_TIME and STOP_TIME for the segments of the profile will be returned in continuation records. If the Provider supports negotiation of price on each segment of a Customer profiled request, BID_PRICE and OFFER_PRICE will also be returned with CAPACITY_REQUESTED, CAPACITY_GRANTED, START_TIME and STOP_TIME.

If the Provider supports reservations submitted on multiple paths, continuation records specifying PATH_NAME, POINT_OF_RECEIPT, and POINT_OF_DELIVERY associated with the reservation would be returned in continuation records.

The AFFILIATE_FLAG will be set by the TSIP to indicate whether or not the Customer is an affiliate of the Primary Provider. The NEGOTIATED_PRICE_FLAG will be set by the TSIP to indicate whether the OFFER_PRICE is higher, lower, or the same as the BID_PRICE. Any time that a confirmed transmission reservation's rights to schedule up to the amount of CAPACITY_GRANTED is reduced, either due to secondary market sales, partial displacements, Provider initiated "recalls" of capacity, etc., the IMPACTED Data Element shall be incremented. Specific information regarding the MW level and reason for reduction in reserved capacity is viewable using the *reduction* Template.

Template: **transstatus**

1. **Query**

SELLER_CODE*
 SELLER_DUNS*
 CUSTOMER_CODE*
 CUSTOMER_DUNS*
 PATH_NAME*
 POINT_OF_RECEIPT*
 POINT_OF_DELIVERY*

SERVICE_INCREMENT*
TS_CLASS*
TS_TYPE*
TS_PERIOD*
TS_WINDOW*
TS_SUBCLASS*
STATUS*
START_TIME (Beginning time of service)
STOP_TIME
START_TIME_QUEUED (Beginning time queue)
STOP_TIME_QUEUED
NEGOTIATED_PRICE_FLAG
ASSIGNMENT_REF
REASSIGNED_REF
RELATED_REF
SALE_REF
REQUEST_REF
DEAL_REF
COMPETING_REQUEST_FLAG
TIME_OF_LAST_UPDATE

2. Response

CONTINUATION_FLAG
ASSIGNMENT_REF
SELLER_CODE
SELLER_DUNS
CUSTOMER_CODE
CUSTOMER_DUNS
AFFILIATE_FLAG (Set by TSIP)
PATH_NAME
POINT_OF_RECEIPT
POINT_OF_DELIVERY
SOURCE
SINK
CAPACITY_REQUESTED
CAPACITY_GRANTED
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD
TS_WINDOW
TS_SUBCLASS
NERC_CURTAILMENT_PRIORITY
OTHER_CURTAILMENT_PRIORITY
START_TIME
STOP_TIME
CEILING_PRICE
OFFER_PRICE
BID_PRICE
PRICE_UNITS

PRECONFIRMED
ANC_SVC_LINK
ANC_SVC_REQ
POSTING_REF
SALE_REF
REQUEST_REF
DEAL_REF
IMPACTED (Greater than 0, if another reservation impacts this reservation)
COMPETING_REQUEST_FLAG
REQUEST_TYPE
RELATED_REF
NEGOTIATED_PRICE_FLAG ("L" if Seller accepted Price is lower than OFFER_PRICE in *transoffering* Template; "H" if higher; otherwise blank)
STATUS
STATUS_NOTIFICATION
STATUS_COMMENTS
TIME_QUEUED
RESPONSE_TIME_LIMIT
TIME_OF_LAST_UPDATE
PRIMARY_PROVIDER_COMMENTS
SELLER_REF
SELLER_COMMENTS
CUSTOMER_COMMENTS
SELLER_NAME
SELLER_PHONE
SELLER_FAX
SELLER_EMAIL
CUSTOMER_NAME
CUSTOMER_PHONE
CUSTOMER_FAX
CUSTOMER_EMAIL
REASSIGNED_REF
REASSIGNED_CAPACITY (Capacity from each previous transaction)
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME

002-4.3.6.3 Seller Approval of Purchase (transsell)

Seller Approval of Purchase (Input) (*transsell*) is input by a Seller to modify the status and queue of a request by a Customer.

The following fields may be submitted in continuation records for the transsell Template to convey transmission rights from multiple original transmission reservations to this new reservation: REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME. Use of continuation records is only supported when using the CSV format upload of Template data.

If the Provider/Seller cannot accommodate the Customer's CAPACITY_REQUESTED and is obligated or elects to offer the Customer partial service that varies over the total period of the reservation, CAPACITY_GRANTED, START_TIME and STOP_TIME Data Elements may be repeated in continuation records.

If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), OFFER_PRICE, START_TIME and STOP_TIME Data Elements may be submitted in continuation records to modify the Seller's offer price associated with the profile segment(s) corresponding to START_TIME and STOP_TIME. OFFER_PRICE associated with each segment of a profiled request must match the corresponding BID_PRICE for the reservation request's STATUS to be set to ACCEPTED.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request. The SELLER_REF Data Element may be set by the SELLER to a seller specific internal tracking number.

If the reservation is subject to the right of first refusal pending a status change to Displaced, the COMPETING_REQUEST_FLAG shall be set to Y, and SELLER_COMMENTS shall be updated with a reference to the competing request's ASSIGNMENT_REF. If the reservation is subject to the right of first refusal pending a status change to Superseded, the COMPETING_REQUEST_FLAG shall be set to Y, the OFFER_PRICE shall be updated, the SELLER_COMMENTS shall be updated with a reference to the competing requests ASSIGNMENT_REF, and the STATUS shall be set to COUNTEROFFER. Once the disposition of the request is finalized, the COMPETING_REQUEST_FLAG shall be reset to N and any appropriate status change shall be made.

The Seller may accept a reservation only when the BID_PRICE and the OFFER_PRICE are the same.

Template: **transsell**

1. **Input**

CONTINUATION_FLAG
ASSIGNMENT_REF (Required)
START_TIME
STOP_TIME
OFFER_PRICE
CAPACITY_GRANTED
STATUS
STATUS_COMMENTS
ANC_SVC_LINK
ANC_SVC_REQ
COMPETING_REQUEST_FLAG
NEGOTIATED_PRICE_FLAG
SELLER_REF

SELLER_COMMENTS
RESPONSE_TIME_LIMIT
REASSIGNED_REF
REASSIGNED_CAPACITY (Previous capacity to be reassigned)
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME

2. Response

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF
START_TIME
STOP_TIME
OFFER_PRICE
CAPACITY_GRANTED
STATUS
STATUS_COMMENTS
ANC_SVC_LINK
ANC_SVC_REQ
COMPETING_REQUEST_FLAG
NEGOTIATED_PRICE_FLAG
SELLER_REF
SELLER_COMMENTS
RESPONSE_TIME_LIMIT
REASSIGNED_REF
REASSIGNED_CAPACITY (Previous capacity to be reassigned)
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME
ERROR_MESSAGE

002-4.3.6.4 Customer Confirmation of Purchase (Input) (transcust)

Customer Confirmation of Purchase (Input) (*transcust*) is input by the Customer to state his agreement or withdrawal of a purchase after the Seller has indicated that the purchase request is approved. Only the BID_PRICE, STATUS, STATUS_COMMENTS, ANC_SVC_LINK, and CUSTOMER_COMMENTS Data Elements can be modified in this Template.

The PRECONFIRMED Data Element may only be set to a value of 'Y' using this Template. Once the Customer has set PRECONFIRMED to 'Y', either on the original submission of the *transrequest* Template or via this Template, its value cannot be reset to 'N'.

CUSTOMER_CODE and CUSTOMER_DUNS shall be determined from the registered connection used to input the request.

The Customer must change the BID_PRICE to be equal to the OFFER_PRICE before the reservation request's STATUS can be set to CONFIRMED.

If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), BID_PRICE, START_TIME and STOP_TIME Data Elements may be submitted in continuation records to modify the Customer's bid price associated with the profile segment(s) corresponding to START_TIME and STOP_TIME. BID_PRICE associated with each segment of a profiled request must match the corresponding OFFER_PRICE for the reservation request's STATUS to be set to CONFIRMED.

Template: **transcust**

1. Input

CONTINUATION_FLAG
ASSIGNMENT_REF (Required)
START_TIME
STOP_TIME
REQUEST_REF
DEAL_REF
BID_PRICE
PRECONFIRMED
STATUS
STATUS_COMMENTS
ANC_SVC_LINK
STATUS_NOTIFICATION If left blank, then original URL from the
transrequest will be used
CUSTOMER_COMMENTS

2. Response

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF
START_TIME
STOP_TIME
REQUEST_REF
DEAL_REF
BID_PRICE
PRECONFIRMED
STATUS
STATUS_COMMENTS
ANC_SVC_LINK
STATUS_NOTIFICATION
CUSTOMER_COMMENTS
ERROR_MESSAGE

002-4.3.6.5 Seller to Reassign Service Rights to Another Customer (transassign)

Seller to Reassign Service Rights to Another Customer (Input) (**transassign**) is used by the seller to ask the Transmission Services Information Provider to reassign some or all of the seller's rights to Services to another Customer, for seller confirmed transactions that have occurred off the OASIS Node. The TSIP shall assign a unique ASSIGNMENT_REF in the response (acknowledgment) and enter the status CONFIRMED as viewed in the **transstatus** Template. SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Only the following fields may be redefined in a continuation record for the **transassign** input Template: CAPACITY_REQUESTED, CAPACITY_GRANTED, START_TIME, STOP_TIME, REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME. The REQUEST_TYPE of "RESALE" is implied through execution of this Template.

Template: **transassign**

1. **Input**

CONTINUATION_FLAG
 CUSTOMER_CODE
 CUSTOMER_DUNS
 PATH_NAME
 POINT_OF_RECEIPT
 POINT_OF_DELIVERY
 SOURCE
 SINK
 CAPACITY_REQUESTED
 CAPACITY_GRANTED
 SERVICE_INCREMENT
 TS_CLASS
 TS_TYPE
 TS_PERIOD
 TS_WINDOW
 TS_SUBCLASS
 START_TIME
 STOP_TIME
 OFFER_PRICE
 ANC_SVC_LINK (optional: filled in if assignment is different than original transmission reservation)
 POSTING_NAME
 REASSIGNED_REF
 REASSIGNED_CAPACITY (Capacity being sold from each previous assignment)
 REASSIGNED_START_TIME
 REASSIGNED_STOP_TIME
 SELLER_COMMENTS
 SELLER_REF

2. Response (acknowledgment)

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF (assigned by TSIP)
CUSTOMER_CODE
CUSTOMER_DUNS
PATH_NAME
POINT_OF_RECEIPT
POINT_OF_DELIVERY
SOURCE
SINK
CAPACITY_REQUESTED
CAPACITY_GRANTED (Total capacity being reassigned)
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD
TS_WINDOW
TS_SUBCLASS
START_TIME
STOP_TIME
OFFER_PRICE
ANC_SVC_LINK
POSTING_NAME
REASSIGNED_REF
REASSIGNED_CAPACITY (Capacity being sold from each previous assignment)
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME
SELLER_COMMENTS
SELLER_REF
ERROR_MESSAGE

002-4.3.7 Seller Posting of Transmission Services

Sellers shall use the following Templates for providing sell information. They may aggregate portions of several previous purchases to create a new service, if this capability is provided by the Transmission Services Information Provider:

002-4.3.7.1 Seller Capacity Posting (transpost)

Seller Capacity Posting (Input) (**transpost**) shall be used by the Seller to post the transmission capacity for resale on to the OASIS Node. SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Template: **transpost**

1. **Input**

PATH_NAME
POINT_OF_RECEIPT
POINT_OF_DELIVERY
INTERFACE_TYPE
CAPACITY
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD
TS_WINDOW
TS_SUBCLASS
ANC_SVC_REQ
START_TIME
STOP_TIME
OFFER_START_TIME
OFFER_STOP_TIME
SALE_REF
OFFER_PRICE
SERVICE_DESCRIPTION
SELLER_COMMENTS

2. **Response** (Acknowledgment)

RECORD_STATUS
POSTING_REF (Assigned by TSIP)
PATH_NAME
POINT_OF_RECEIPT
POINT_OF_DELIVERY
INTERFACE_TYPE
CAPACITY
SERVICE_INCREMENT
TS_CLASS
TS_TYPE
TS_PERIOD
TS_WINDOW
TS_SUBCLASS
ANC_SVC_REQ
START_TIME
STOP_TIME
OFFER_START_TIME
OFFER_STOP_TIME
SALE_REF
OFFER_PRICE
SERVICE_DESCRIPTION
SELLER_COMMENTS
ERROR_MESSAGE

002-4.3.7.2 Seller Capacity Modify (transupdate)

Seller Capacity Modify (Input) (**transupdate**) shall be used by a Seller to modify a posting of transmission capacity.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Template: **transupdate**

1. Input

POSTING_REF (Must be provided)
CAPACITY (only if modified)
START_TIME (only if modified)
STOP_TIME (only if modified)
OFFER_START_TIME (only if modified)
OFFER_STOP_TIME (only if modified)
ANC_SVC_REQ (only if modified)
SALE_REF (only if modified)
OFFER_PRICE (only if modified)
SERVICE_DESCRIPTION (only if modified)
SELLER_COMMENTS (only if modified)

2. Response (acknowledgment)

RECORD_STATUS
POSTING_REF
CAPACITY
START_TIME
STOP_TIME
OFFER_START_TIME
OFFER_STOP_TIME
ANC_SVC_REQ

SALE_REF
OFFER_PRICE
SERVICE_DESCRIPTION
SELLER_COMMENTS
ERROR_MESSAGE

002-4.3.8 Purchase of Ancillary Services

002-4.3.8.1 Customer Requests to Purchase Ancillary Services (ancrequest)

Customer Requests to Purchase Ancillary Services (**ancrequest**) (Input, Template Upload) is used by the customer to request ancillary services that have been posted by a seller of those services. The response simply acknowledges that the Customer's request was received by the OASIS Node. It does not imply that the Seller has received the request. The same

requirements exist for the use of STATUS_NOTIFICATION as for **transrequest**. Submitting values into the reference Data Elements is optional.

CUSTOMER_CODE and CUSTOMER_DUNS shall be determined from the registered connection used to input the request.

Supporting "profiles" of ancillary service, which request different capacities (and optionally price) for different time periods within a single request, is at the discretion of the Primary Provider. Continuation records may be used to indicate requests for these service profiles. Each segment of a profile is represented by the Data Elements CAPACITY, START_TIME, and STOP_TIME, which define the intervals in time over which a non-zero MW demand is being requested. The initial segment of a profile is defined by the CAPACITY, START_TIME and STOP_TIME Data Elements specified in the first/only record submitted; subsequent segments are specified in continuation records each containing the appropriate CAPACITY, START_TIME and STOP_TIME values defining the segment. Providers may optionally support price negotiation on segments of a profiled reservation request. In this case, the BID_PRICE Data Element is also included in each continuation record. If the BID_PRICE Data Element is not specified in the continuation records, the BID_PRICE specified in the first/only record submitted will be applied to the entire reservation request.

The START_TIME and STOP_TIME indicate the requested period of service.

When the request is received at the OASIS Node, the TSIP assigns a unique ASSIGNMENT_REF value and queues the request with a time stamp. The STATUS for the request is QUEUED.

Specification of a value YES in the PRECONFIRMED field authorizes the TSIP to automatically change the STATUS field in the **ancstatus** Template to CONFIRMED when that request is ACCEPTED by the Seller.

Template: **ancrequest**

1. Input

CONTINUATION_FLAG
 SELLER_CODE
 SELLER_DUNS
 CONTROL_AREA
 ANC_SERVICE_POINT
 CAPACITY
 SERVICE_INCREMENT
 AS_TYPE
 STATUS_NOTIFICATION
 START_TIME
 STOP_TIME
 BID_PRICE
 PRECONFIRMED
 POSTING_REF (Optionally set by Customer)
 SALE_REF (Optionally set by Customer)

REQUEST_REF (Optionally set by Customer)
DEAL_REF (Optionally set by Customer)
CUSTOMER_COMMENTS

2. **Response** (acknowledgment)

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF (assigned by TSIP)
SELLER_CODE
SELLER_DUNS
CONTROL_AREA
ANC_SERVICE_POINT
CAPACITY
SERVICE_INCREMENT
AS_TYPE
STATUS_NOTIFICATION
START_TIME
STOP_TIME
BID_PRICE
PRECONFIRMED
POSTING_REF
SALE_REF
REQUEST_REF
DEAL_REF
CUSTOMER_COMMENTS
ERROR_MESSAGE

002-4.3.8.2 Ancillary Services Status (ancstatus)

Ancillary Services Status (***ancstatus***) is used to provide the status of purchase requests regarding the ancillary services that are available for sale by all Service Providers. Continuation records may be returned in association with an ancillary services reservation to convey information regarding: 1) sale or assignment of ancillary rights on the secondary market (reassignments), or 2) profiled requests. When an ancillary reservation request is the result of a sale or assignment of transmission or ancillary rights on the secondary market, the identity of the original reservation, capacity, and time interval over which rights are assigned to the new reservation are defined by the Data Elements REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME. These Data Elements will be returned in continuation records when more than one set of reassignment information is associated with a reservation. If the reservation has an associated profile (support for reservation profiles is at the discretion of the Provider), CAPACITY, START_TIME and STOP_TIME for the segments of the profile will be returned in continuation records. If the Provider supports negotiation of price on each segment of a profiled request, BID_PRICE and OFFER_PRICE will also be returned with CAPACITY, START_TIME and STOP_TIME.

The AFFILIATE_FLAG will be set by the TSIP to indicate whether or not the Customer is an affiliate of the Seller.

The values of STATUS and processes for setting STATUS are the same as for *transstatus*.

Template: **ancstatus**

1. **Query**

SELLER_CODE*
SELLER_DUNS*
CUSTOMER_CODE*
CUSTOMER_DUNS*
CONTROL_AREA
ANC_SERVICE_POINT
SERVICE_INCREMENT
AS_TYPE
STATUS
START_TIME
STOP_TIME
START_TIME_QUEUED
STOP_TIME_QUEUED
NEGOTIATED_PRICE_FLAG
ASSIGNMENT_REF
REASSIGNED_REF
SALE_REF
REQUEST_REF
DEAL_REF
TIME_OF_LAST_UPDATE (only if TIME_OF_LAST_UPDATE is posted
by record)

2. **Response**

CONTINUATION_FLAG
ASSIGNMENT_REF
SELLER_CODE
SELLER_DUNS
CUSTOMER_CODE
CUSTOMER_DUNS
AFFILIATE_FLAG (Set by TSIP)
CONTROL_AREA
ANC_SERVICE_POINT
CAPACITY
SERVICE_INCREMENT
AS_TYPE
START_TIME
STOP_TIME
CEILING_PRICE
OFFER_PRICE
BID_PRICE
PRICE_UNITS

PRECONFIRMED
POSTING_REF
SALE_REF
REQUEST_REF
DEAL_REF
NEGOTIATED_PRICE_FLAG ("L" if Seller accepted Price is lower than
OFFER_PRICE in *ancoffering* Template; "H" if higher; otherwise blank)
STATUS
STATUS_NOTIFICATION
STATUS_COMMENTS
TIME_QUEUED
RESPONSE_TIME_LIMIT
TIME_OF_LAST_UPDATE
PRIMARY_PROVIDER_COMMENTS
SELLER_COMMENTS
CUSTOMER_COMMENTS
SELLER_NAME
SELLER_PHONE
SELLER_FAX
SELLER_EMAIL
CUSTOMER_NAME
CUSTOMER_PHONE
CUSTOMER_FAX
CUSTOMER_EMAIL
REASSIGNED_REF
REASSIGNED_CAPACITY
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME

002-4.3.8.3 Seller Approves Ancillary Service (*ancsell*)

Seller Approves Ancillary Service (*ancsell*) is used by the Seller to confirm acceptance after the Seller has approved the purchase of ancillary service.

The following fields may be submitted in continuation records for the *ancsell* Template to convey ancillary rights from multiple original ancillary service reservations to this new reservation: REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME. If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), OFFER_PRICE, START_TIME and STOP_TIME Data Elements may be submitted in continuation records to modify the Seller's offer price associated with the profile segment(s) corresponding to START_TIME and STOP_TIME. OFFER_PRICE associated with each segment of a profiled request must match the corresponding BID_PRICE for the reservation request's STATUS to be set to ACCEPTED.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Template: **ancsell**

1. **Input**

CONTINUATION_FLAG
ASSIGNMENT_REF (Required)
START_TIME
STOP_TIME
OFFER_PRICE
STATUS
STATUS_COMMENTS
NEGOTIATED_PRICE_FLAG
RESPONSE_TIME_LIMIT
SELLER_COMMENTS
REASSIGNED_REF
REASSIGNED_CAPACITY
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME

2. **Response** (acknowledgment)

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF
START_TIME
STOP_TIME
OFFER_PRICE
STATUS
STATUS_COMMENTS
NEGOTIATED_PRICE_FLAG
RESPONSE_TIME_LIMIT
SELLER_COMMENTS
REASSIGNED_REF
REASSIGNED_CAPACITY
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME
ERROR_MESSAGE

002-4.3.8.4 Customer accepts Ancillary Service (anccust)

Customer accepts Ancillary Service (**anccust**) is used by the customer to confirm acceptance after the seller has approved the purchase of ancillary service.

The Customer must change the BID_PRICE to be equal to the OFFER_PRICE before the reservation request's STATUS can be set to CONFIRMED. If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), BID_PRICE, START_TIME and STOP_TIME Data Elements may be submitted in continuation records to modify the Customer's bid price associated with the profile segment(s) corresponding to START_TIME and

STOP_TIME. BID_PRICE associated with each segment of a profiled request must match the corresponding OFFER_PRICE for the reservation request's STATUS to be set to CONFIRMED.

CUSTOMER_CODE and CUSTOMER_DUNS shall be determined from the registered connection used to input the request.

Template: **anccust**

1. **Input**

CONTINUATION_FLAG
ASSIGNMENT_REF (Required)
START_TIME
STOP_TIME
REQUEST_REF
DEAL_REF
BID_PRICE
PRECONFIRMED
STATUS
STATUS_COMMENTS
STATUS_NOTIFICATION (If left blank, then the original URL from the **ancrequest** will be used
CUSTOMER_COMMENTS

2. **Response** (Acknowledgment)

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF
START_TIME
STOP_TIME
REQUEST_REF
DEAL_REF
BID_PRICE
PRECONFIRMED
STATUS
STATUS_COMMENTS
STATUS_NOTIFICATION
CUSTOMER_COMMENTS
ERROR_MESSAGE

002-4.3.8.5 Seller to Reassign Service Rights to Another Customer (anccassign)

Seller to Reassign Service Rights to Another Customer (Input) (**anccassign**) is used by the seller to ask the Transmission Services Information Provider to reassign some or all of the seller's rights to Services to another Customer, for seller confirmed transactions that have occurred off the OASIS Node.

Implementation of this Template is optional until such time that a business case requiring the use of such a facility to selectively reassign ancillary services is clearly demonstrated.

The TSIP shall assign a unique ASSIGNMENT_REF in the response (acknowledgment) and enter the status CONFIRMED as viewed in the **ancstatus** Template.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Only the following fields may be redefined in a continuation record for the **ancassign** input Template: CAPACITY, START_TIME, STOP_TIME, REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Template: **ancassign**

1. Input

CONTINUATION_FLAG
CUSTOMER_CODE
CUSTOMER_DUNS
CONTROL_AREA
ANC_SERVICE_POINT
CAPACITY
SERVICE_INCREMENT
AS_TYPE
START_TIME
STOP_TIME
OFFER_PRICE
POSTING_NAME
REASSIGNED_REF
REASSIGNED_CAPACITY (Capacity being sold from each previous assignment)
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME
SELLER_COMMENTS

2. Response (acknowledgment)

RECORD_STATUS
CONTINUATION_FLAG
ASSIGNMENT_REF (assigned by TSIP)
CUSTOMER_CODE
CUSTOMER_DUNS
CONTROL_AREA
ANC_SERVICE_POINT
CAPACITY (Total capacity being reassigned)

SERVICE_INCREMENT
AS_TYPE
START_TIME
STOP_TIME
OFFER_PRICE
POSTING_NAME
REASSIGNED_REF
REASSIGNED_CAPACITY (Capacity being sold from each previous assignment)
REASSIGNED_START_TIME
REASSIGNED_STOP_TIME
SELLER_COMMENTS
ERROR_MESSAGE

002-4.3.9 Seller Posting of Ancillary Services

002-4.3.9.1 Seller Ancillary Services Posting (ancpost)

Seller Ancillary Services Posting (**ancpost**) is used by the Seller to post information regarding the different services that are available for sale by third party Sellers of ancillary services.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Template: **ancpost**

1. Input

CONTROL_AREA
SERVICE_DESCRIPTION
CAPACITY
SERVICE_INCREMENT
AS_TYPE
START_TIME
STOP_TIME
OFFER_START_TIME
OFFER_STOP_TIME
SALE_REF
OFFER_PRICE
SELLER_COMMENTS

2. Response (acknowledgment)

RECORD_STATUS
POSTING_REF (Assigned by TSIP)
CONTROL_AREA
SERVICE_DESCRIPTION
CAPACITY
SERVICE_INCREMENT
AS_TYPE

START_TIME
STOP_TIME
OFFER_START_TIME
OFFER_STOP_TIME
SALE_REF
OFFER_PRICE
SELLER_COMMENTS
ERROR_MESSAGE

002-4.3.9.2 Seller Modify Ancillary Services Posting (*ancupdate*)

Seller Modify Ancillary Services Posting (*ancupdate*) is used by the Seller to modify posted information regarding ancillary services that are available for sale by a third party Seller.

SELLER_CODE and SELLER_DUNS shall be determined from the registered connection used to input the request.

Template: **ancupdate**

1. Input

POSTING_REF (Required)
CAPACITY (only if modified)
SERVICE_DESCRIPTION (only if modified)
START_TIME (only if modified)
STOP_TIME (only if modified)
OFFER_START_TIME (only if modified)
OFFER_STOP_TIME (only if modified)
SALE_REF (only if modified)
OFFER_PRICE (only if modified)
SELLER_COMMENTS (only if modified)

2. Response (acknowledgment)

RECORD_STATUS
POSTING_REF
CAPACITY
SERVICE_DESCRIPTION
START_TIME
STOP_TIME
OFFER_START_TIME
OFFER_STOP_TIME
SALE_REF
OFFER_PRICE
SELLER_COMMENTS
ERROR_MESSAGE

002-4.3.10 Informal Messages

002-4.3.10.1 Provider/Customer Want Ads and Informal Message Posting Request (messagepost)

Provider/Customer Want Ads and Informal Message Posting Request (**messagepost**) is used by Providers and Customers who wish to post a message. The valid entries for CATEGORY shall be defined by providers and shall be listed in the List of CATEGORY Template.

CUSTOMER_CODE and CUSTOMER_DUNS shall be determined from the registered connection used to input the request.

When the OASIS node is out of service and transmission requests are received by the TP by phone or fax then the CATEGORY=OASIS_MAINTENANCE_OUTAGE will be used to document the outage. The VALID_FROM_TIME will be the time the outage started and VALID_TO_TIME will be the time the outage ended. A list of all transactions that occurred during the outage and entered afterwards will be available through a query of the **transstatus** Template using START_TIME_QUEUED=<VALID_FROM_TIME> and STOP_TIME_QUEUED=<VALID_TO_TIME>.

Template: **messagepost**

1. **Input**

SUBJECT
CATEGORY
VALID_FROM_TIME
VALID_TO_TIME
MESSAGE (must be specified)

2. **Response** (acknowledgment)

RECORD_STATUS
POSTING_REF (assigned by information provider)
SUBJECT
CATEGORY
VALID_FROM_TIME
VALID_TO_TIME
MESSAGE
ERROR_MESSAGE

002-4.3.10.2 Message (message)

Message (**message**) is used to view a posted Want Ad or Informal Message. The CATEGORY Data Element can be queried.

Template: **message**

1. Query

CUSTOMER_CODE
CUSTOMER_DUNS
POSTING_REF
CATEGORY
VALID_FROM_TIME
VALID_TO_TIME
TIME_POSTED

2. Response

CUSTOMER_CODE
CUSTOMER_DUNS
POSTING_REF
SUBJECT
CATEGORY
VALID_FROM_TIME
VALID_TO_TIME
TIME_POSTED
CUSTOMER_NAME
CUSTOMER_PHONE
CUSTOMER_FAX
CUSTOMER_EMAIL
MESSAGE

002-4.3.10.3 Provider/Sellers Message Delete Request (messagedelete)

Provider/Sellers Message Delete Request (**messagedelete**) is used by Providers and Sellers who wish to delete their message. The POSTING_REF number is used to determine which message.

CUSTOMER_CODE and CUSTOMER_DUNS shall be determined from the registered connection used to input the request.

Template: **messagedelete**

1. Input

POSTING_REF

2. **Response** (Acknowledgment)

RECORD_STATUS
POSTING_REF
ERROR_MESSAGE

002-4.3.10.4 Personnel Transfers (personnel)

The Personnel Transfers (**personnel**) Template is used to indicate when personnel are transferred between the merchant function and the Transmission Provider function as required by Standards of Conduct WEQ-009 or applicable regulations.

Template: **personnel**

1. **Query**

TIME_OF_LAST_UPDATE
START_TIME_POSTED
STOP_TIME_POSTED

2. **Response**

POSTING_NAME
EMPLOYEE_NAME
FORMER_POSITION
FORMER_COMPANY
FORMER_DEPARTMENT
NEW_POSITION
NEW_COMPANY
NEW_DEPARTMENT
DATE_TIME_EFFECTIVE
TIME_POSTED
TIME_OF_LAST_UPDATE

002-4.3.10.5 Discretion (discretion)

The Discretion (**discretion**) Template is used to describe the circumstances when discretion was exercised in applying terms of the tariff, as described in the Standards of Conduct WEQ-009 or applicable regulations.

Template: **discretion**

1. **Query**

START_TIME_POSTED
STOP_TIME_POSTED
START_TIME
STOP_TIME
SERVICE_TYPE
SERVICE_NAME

TIME_OF_LAST_UPDATE

2. **Response**

POSTING_NAME
RESPONSIBLE_PARTY_NAME (name of person granting discretion)
SERVICE_TYPE (ancillary or transmission)
SERVICE_NAME (make consistent with offering Templates)
TARIFF_REFERENCE
START_TIME
STOP_TIME
DISCRETION_DESCRIPTION
TIME_POSTED
TIME_OF_LAST_UPDATE

002-4.3.10.6 Standards of Conduct (stdconduct)

The Standards of Conduct (**stdconduct**) Template indicates when information is disclosed in a manner contrary to the standards of conduct, as described in the Standards of Conduct WEQ-009 or applicable regulations.

Template: **stdconduct**

1. **Query**

START_TIME_POSTED
STOP_TIME_POSTED
TIME_OF_LAST_UPDATE

2. **Response**

POSTING_NAME
RESPONSIBLE_PARTY_NAME
STANDARDS_OF_CONDUCT_ISSUES
TIME_POSTED
TIME_OF_LAST_UPDATE

002-4.3.11 **Audit Log**

The OASIS audit log report facility shall be implemented by the definition of the following Templates:

transofferingaudit	- audit counterpart to transoffering
ancofferingaudit	- audit counterpart to ancoffering
scheduledetailaudit	- audit counterpart to scheduledetail
securityaudit	- audit counterpart to security
systemdataaudit	- audit counterpart to systemdata
transstatusaudit	- audit counterpart to transstatus
ancstatusaudit	- audit counterpart to ancstatus
personnelaudit	- audit counterpart to personnel
discretionaudit	- audit counterpart to discretion
stdconductaudit	- audit counterpart to stdconduct

Each of these audit Templates is an extension to the OASIS Template definitions of their non-audit counterparts. The requirements for implementation of the audit Templates are defined in the following sections.

002-4.3.11.1 Query Variables

Each of the audit Templates defined shall support exactly the same set of Query Variables as defined for their non-audit Template counterpart. As with the standard Template definitions, audit reports may be downloaded in Comma Separated Value (CSV) format by the specification of the OUTPUT_FORMAT=DATA Query Variable, or may be viewed using a web browser when OUTPUT_FORMAT=HTML is specified.

002-4.3.11.2 Audit Report Response Format

Audit report information shall be returned in response to a valid query request made to any of the audit Templates defined. Query variables may be specified as allowed by each individual Template and shall have the effect of limiting the scope of audit data returned to that set of information selected by that combination of additional Query Variables.

The response to an audit query shall consist of ordered sets of information reflecting both the current information as posted on OASIS and the full history of changes made to that information. These ordered sets of information are organized around the individual postings or "records" returned in response to the applicable non-audit Template. For example, execution of the **transstatus** (or **ancstatus**) Template returns a set of individual records identified by unique ASSIGNMENT_REF. The **transstatusaudit** Template response is then organized by ASSIGNMENT_REF and would show all changes made to those Data Elements associated with each individual ASSIGNMENT_REF record.

Execution of the **transoffering** (or **ancoffering** or **systemdata**) Template returns a set of individual records identified by unique POSTING_REF. The **transofferingaudit** Template response is then organized by POSTING_REF and would show all changes made to those Data Elements associated with each individual POSTING_REF record.

The specific audit report response format is detailed in the following sections.

002-4.3.11.3 Comma Separated Value (CSV) Format

A CSV formatted audit Template response shall comply with all the general provisions and specifications defined previously for a CSV formatted response. The CSV response records shall be organized in sets of records containing both the latest information posted on OASIS and all changes made to that information over time.

002-4.3.11.3.1 CSV Response Header Records

The following additional Data Element names shall be included as the first set of Data Elements in the COLUMN_HEADERS record and the corresponding Data Element values shall be included in each subsequent Data Record (row) returned in the audit response:

RECORD_TYPE
TIME_OF_LAST_UPDATE
MODIFYING_COMPANY_CODE
MODIFYING_NAME

These Data Elements shall precede the standard Data Elements associated with the specific Template being invoked.

The RECORD_TYPE Data Element shall take on one of the following restricted values:

- I** - denotes a record of information as it appeared on its initial Insertion (posting) on OASIS
- U** - denotes a record of information as it appeared immediately following an Update to the posted information
- D** - denotes a record of any Deleted information as it last appeared on OASIS.

The TIME_OF_LAST_UPDATE Data Element shall contain the time that the Template Data Elements were inserted, updated or deleted to the values reported in that record (row) of the response. This Data Element is identical to the standard Template TIME_OF_LAST_UPDATE Data Element, and is included as part of the fixed audit specific Data Element columns to aid users in sorting the audit response records.

The MODIFYING_COMPANY_CODE and MODIFYING_NAME Data Elements shall contain the identity of the entity (by the appropriate 4-6 character customer/provider code) and the person that inserted, updated or deleted the Data Elements to the values reported in that record (row) of the response. In the event the modification of posted information cannot be associated with a specific OASIS user (e.g., as a result of an automated back-end process), the MODIFYING_NAME Data Element may be null.

Immediately following the MODIFYING_NAME column header, each of the standard non-audit counterpart Template's Data Elements shall be listed in the exact sequence defined for that non-audit Template.

Finally, OASIS implementations may include additional Data Elements identified by unique column headers appended after the fixed audit and standard Template Data Elements. These additional Data Elements may be used to convey implementation specific information maintained in the OASIS database in association with the data being audited.

002-4.3.11.3.2 CSV Data Records

In formatting an audit response, OASIS shall collect and order information into sets of Data Records (rows). Each set of records returned shall include a record corresponding to the information as original inserted into the OASIS database denoted by a RECORD_TYPE of "I", and as many additional records with RECORD_TYPE of "U" corresponding to each update made to that information over time. If applicable, a record may also be returned in the set with a RECORD_TYPE of "D" if the corresponding information was effectively deleted from the database. The number of sets of audit report records returned in response to an audit query shall be determined by the number and type of additional Template Query Variables specified by the user.

002-4.3.11.3.3 CSV Continuation Records

Continuation records are used in certain standard Phase 1-A Templates to report repeating Data Elements associated with a single OASIS transaction such as demand profiles or the reassignment of rights on the secondary market. The first (CONTINUATION_FLAG=N) record and all associated continuation (CONTINUATION_FLAG=Y) records shall be treated as a group when generating the response to an audit query. To minimize the volume of information reported in an audit response, implementations may elect to suppress repeating the contents of information contained in continuation records if none of the Data Elements associated with those continuation records were modified. If, however, the Data Element(s) to be reported by an audit record are contained in one or more of the continuation records (e.g., a change was made to a transmission reservation's demand profile), the first (CONTINUATION_FLAG=N) record followed by the entire group of continuation (CONTINUATION_FLAG=Y) records shall be reported.

002-4.3.11.3.4 CSV Response Header Records

Finally, OASIS implementations may include additional Data Elements identified by unique column headers appended after the fixed audit and standard Template Data Elements. These additional Data Elements may be used to convey implementation specific information maintained in the OASIS database in association with the data being audited.

002-4.3.11.4 HTML Output

Specification of the Query Variable OUTPUT_FORMAT=HTML shall minimally result in an audit report formatted identically to the CSV Format (OUTPUT_FORMAT=DATA) with the exception that the response shall be returned using the HTTP header "**Content-type: text/plain**" specification. This will result in the CSV Data Records being rendered in simple text within the user's web-browser. More sophisticated HTML formatted responses to audit queries may be provided by the TSIPs at their discretion.

002-4.3.11.5 Special Audit Template Considerations

Transoffering

The **transoffering** Template is used to convey information on transmission services offered for sale as well as the availability of transmission capability (TTC/ATC). The proposed audit reporting scheme may prove inadequate to generate audits of both the commercial aspects of offers posted on OASIS (i.e., price, etc.) and the reliability aspects associated with those offers (i.e., ATC) depending on how these two different types of information are represented internally by each OASIS node.

For those OASIS implementations that handle TTC/ATC information separately from the posting of commercial offers of service, audit reports generated by the **transofferingaudit** Template may be limited to only reporting changes to the Data Elements associated with the commercial aspects of the offer (e.g., OFFER_PRICE, OFFER_START_TIME, etc.), and may return a null value for the CAPACITY Data Element. These nodes shall use the **systemdataaudit** Template audit reporting facility to allow for the full auditing of changes made to TTC and ATC postings as required under Federal Regulations.

Scheduledetail

The **scheduledetail** Template combines information from one or more transmission reservations and transmission security event postings (e.g., TLRs) with information posted on actual scheduled use of the transmission system. Audit information related to changes made to a given transmission reservation shall be auditable using the **transstatusaudit** Template. Audit information related to the posting of transmission security events that led to a curtailment or interruption of service, or the denial of a request to schedule service shall be auditable using the **securityaudit** Template. Therefore, the **scheduledetailaudit** Template shall only be required to report changes to the following Data Elements associated with the **scheduledetail** Template:

TRANSACTION_ID
 START_TIME
 STOP_TIME
 SCHEDULE_REQUESTED
 SCHEDULE_GRANTED
 ASSIGNMENT_REF
 PROVIDER_ACTION
 SCHEDULE_LIMIT
 CURTAILMENT_OPTIONS
 SECURITY_REF

002-4.4 **FILE REQUEST AND FILE DOWNLOAD EXAMPLES**

See the OASIS Implementation Guide WEQ-013-4.1.

002-4.4.1 RESERVED

002-4.4.2 RESERVED

002-4.4.3 RESERVED

002-4.4.4 RESERVED

002-4.4.5 RESERVED

002-4.4.6 RESERVED

002-4.4.6.1 RESERVED

002-4.4.6.2 RESERVED

002-4.4.6.3 RESERVED

002-4.4.6.4 RESERVED

002-4.4.6.5 RESERVED

002-4.4.6.6 RESERVED

002-4.4.7 RESERVED

002-4.4.7.1 RESERVED

002-4.4.7.2 RESERVED

002-4.5 GENERAL POSTINGS

002-4.5.1 **INFO.HTM**

When a regulatory order requires informational postings on OASIS and there is no OASIS S&CP template to support the postings or it is deemed inappropriate to use a template, or the location of the posting has not been required to be elsewhere, there shall be a reference in INFO.HTM to the required information, including, but not limited to, references to the following:

- A common source of interconnection wide curtailment and interruption information, such as the NERC Transmission Loading Relief (TLR) web site.

- Information related to the Transmission Provider's methodology for computing and application of Capacity Benefit Margin (CBM) and Transmission Reliability Margin (TRM). If the Transmission Provider does not use CBM or TRM in their assessment of Available Transmission Capability (ATC), that information shall also be in INFO.HTM.
- The location of the list of system studies conducted.
- Information on requesting the text file of the tariffs and service agreements.

For the purposes of this section, any link to required informational postings that can be accessed from INFO.HTM would be considered to have met the OASIS posting requirements, provided that the linked information meets all other OASIS accessibility requirements.

002-4.5.2 Information Under Standards of Conduct Link

The Transmission Provider shall establish a link entitled “Standards of Conduct,” located on the OASIS home page at the Transmission Provider’s registered URL address.

The following types of information, as found in Standards of Conduct for Transmission Providers, Order 2004, 105 FERC ¶61,248 (2003); *order on reh’g*, Order 2004-A, 107 FERC ¶61,032; *order on reh’g*, Order 2004-B, 108 FERC ¶61,118 (2004); *order on reh’g*, Order 2004-C, 109 FERC ¶61,325; *order on reh’g*, Order 2004-D, 110 FERC ¶61,320, and 18 CFR §358 should be accessible from the Standards of Conduct link.

Emergency Circumstances Deviations (§358.4(a)(2))

Marketing and Energy Affiliate List (§358.4(b)(1))

Shared Facilities (§358.4(b)(2))

Organizational Charts and Job Descriptions (§358.4(b)(3)(i))

Common Employees (§358.4(b)(3)(iii))

Potential Merger Partners (§358.4(b)(3)(v))

Transfers¹ (§358.4(c))

Information Disclosure² (§358.5(b) (3))

Voluntary Consent to Share Non-Affiliated Customer Information
(§358.5(b)(4))

¹ According to WEQ-002-4.3.10.4 a template is required for this item.

² According to WEQ-002-4.3.10.6 a template is required for this item.

Discretionary Actions under Tariff³ (§358.5(c)(4))

Discounts⁴ (§358.5(d))

Chief Compliance Officer (§358.4(e)(6))

Written Procedures for Implementation (§358.4 (e)(3))

These items shall appear in the order specified above and before any other items which may be required as per specific FERC direction or local business practice. Posting of the cites noted in the parentheses is optional. Access to some of the information found under the Standards of Conduct link above may require the user to register with the individual OASIS sites according to Section 3.1

002-5 PERFORMANCE REQUIREMENTS

A critical aspect of any system is its performance. Performance encompasses many issues, such as security, sizing, response to user requests, availability, backup, and other parameters that are critical for the system to function as desired. The following sections cover the performance requirements for the OASIS Nodes.

002-5.1 SECURITY

Breaches of security include many inadvertent or possibly even planned actions. Therefore, several requirements shall be implemented by the TSIPs to avoid these problems:

a. Provider Update of TS Information

Only Providers, including Secondary Providers, shall be permitted to update their own TS Information.

b. Customer Input Only ASCII Text

TSIPs shall be permitted to require that inputs from Customers shall be filtered to permit only strict ASCII text (strip bit 8 from each byte).

c. Provider Updating Over Public Facilities

If public facilities are involved in the connection between a Provider and the OASIS Node, the Provider shall be able to update his TS Information only through the use of ASCII or through encrypted files.

³ According to WEQ-002-4.3.10.5 a template is required for this item.

⁴ According to WEQ-002-4.3.2.1 a template is required for this item.

d. User Registration and Login

All Users shall be required to register and login to a Provider's Account before accessing that Provider's TS Information.

e. User Passwords

All Users shall enter their personal password when they wish access to TS Information beyond the lowest Access Privilege.

f. Service Request Transactions

Whenever Service Request transactions are implemented entirely over OASIS Nodes, both an individual Customer password for the request, and an individual Provider password for the notification of acceptance shall be required.

g. Data Encryption

Sophisticated data encryption techniques and the "secure id" mechanisms being used on the public Internet shall be used to transfer sensitive data across the Internet and directly between OASIS Nodes.

h. Viruses

Since only data is being transmitted between the OASIS Nodes and the Users, viruses are unlikely to be passed between them. Therefore, TSIPs shall be responsible for ensuring that the OASIS Nodes are free from viruses, but need not screen data exchanges with Users for viruses.

i. Performance Log

TSIPs shall keep a log on User usage of OASIS resources.

j. Disconnection

TSIPs shall be allowed to disconnect any User who is degrading the performance of the OASIS Node through the excessive use of resources, beyond what is permitted in their Service Level Agreement.

k. Premature Access

The TSIP log shall also be used to ensure that Users who are affiliated with the Provider's company (or any other User) do not have access to TS information before it is publicly available.

l. Firewalls

TSIPs shall employ security measures such as firewalls to minimize the possibility that unauthorized users shall access or modify TS Information or reach into Provider or User systems. Interfaces through Public Data

Networks or the Internet shall be permitted as long as these security requirements are met.

m. Certificates and Public Key Standards (optional)

Use of alternative forms of login and authentication using certificates and public key standards is acceptable.

002-5.2 ACCESS PRIVILEGES

Users shall be assigned different Access Privileges based on external agreements between the User and the Provider. These Access Privileges are associated with individual Users rather than just a company, to ensure that only authorized Users within a company have the appropriate access.

The following Access Privileges shall be available as a minimum:

a. Access Privilege Read-Only

The User may only read publicly available TS Information.

b. Access Privilege for Transactions

The Customer is authorized to transact Service Requests.

c. Access Privilege Read/Write

A Secondary Provider shall have write access to his own Provider Account on an OASIS Node.

002-5.3 OASIS RESPONSE TIME REQUIREMENTS

002-5.3.1 TSIPs can only be responsible for the response capabilities of two portions of the Internet-based OASIS network:

- The adequacy of the TSIP's internet interconnection(s) for reasonable high-volume utilization
- The response capabilities of the OASIS Node functions to process interactions with Users

002-5.3.2 Measurement Criteria for Internet Connections

An OASIS node's Internet connection(s) should not exceed 60% sustained utilization. To determine the sustained utilization, TSIPs shall retain usage records and logs related to the Internet service.

002-5.3.3 Measurement Criteria for OASIS Node functions

It is required that OASIS query functions meet or exceed the response times listed below during the normal conduct of business.

Template or GUI equivalent	Average Response not fewer than:	90% of Responses not fewer than:
<i>transstatus</i>	100 rows/minute	10 rows/minute
<i>transoffering</i>	500 rows/minute	100 rows/minute

It should be recognized that during periods of minimal interactivity there might be heavier loading due to automated processes gathering larger volumes of data or due to OASIS node housekeeping services. The offloading of such discretionary demand should not be discouraged if it serves to make the OASIS more responsive during primary periods of customer activity.

To assess whether these performance capabilities are obtainable, an OASIS application shall collect and log pertinent statistics on an hourly basis about each invocation of the primary types of data queries on the Templates ***transstatus*** and ***transoffering***. Statistics logged shall be the number of invocations per type of template, the service processing time to retrieve the information, format of the responses, and effective template data row count.

002-5.4 OASIS PROVIDER ACCOUNT AVAILABILITY

The following are the OASIS Provider Account availability requirements:

a. OASIS Provider Account Availability

The availability of each OASIS Provider account on an OASIS Node shall be at least **98.0%** (downtime of about 7 days per year).

Availability is defined as:

$$\% \text{ Availability} = \frac{(1 - \text{Cumulative Provider Account Downtime})}{\text{Total Time}} * 100$$

A Provider account shall be considered to be down, and downtime shall be accumulated, upon occurrence of any of the following:

1. One or more Users cannot link and log on to the Provider account. The downtime accumulated shall be calculated as:

Σ for affected Users of $1/n * (\text{Login Time})$, which is the time used by each affected User to try to link and log on to the Provider account, and where "n" is the total number of Users actively registered for that Provider account.

2. One or more Users cannot access TS Information once they have logged on to a Provider account. The downtime accumulated shall be calculated as:

Σ for affected Users of $1/n * (\text{Access Time})$, which is the time used by each affected User to try to access data, and where "n" is the total number of Users actively registered for that Provider.

3. A **five (5) minute** penalty shall be added to the cumulative downtime for every time a User loses their connection to a Provider's account due to an OASIS Node momentary failure or problem.

002-5.5

BACKUP AND RECOVERY

The following backup and recovery requirements shall be met:

- a. **Normal Backup of TS Information:** Backup of TS Information and equipment shall be provided within the OASIS Nodes so that no data or transaction logs are lost or become inaccessible by Users due to any single point of failure. Backed up data shall be no older than **30 seconds**. Single points of failure include the loss of one:
 - Disk drive or other storage device
 - Processor
 - Inter-processor communications (e.g. LAN)
 - Inter-OASIS communications
 - Software application
 - Database
 - Communication ports for access by Users
 - Any other single item which affects the access of TS Information by Users
- b. **Spurious Failure Recovery Time:** After a spurious failure situation, all affected Users shall regain access to all TS Information **within 30 minutes**. A spurious failure is a temporary loss of services which can be overcome by rebooting a system or restarting a program. Permanent loss of any physical component is considered a catastrophic failure.
- c. **Long-Term Backup:** Permanent loss of critical data due to a catastrophic failure shall be minimized through off-line storage on a **daily basis** and through off-site data storage on a **periodic basis**.
- d. **Catastrophic Failure Recovery:** Recovery from a catastrophic failure or loss of an OASIS Node may be provided through the use of alternate OASIS Nodes which meet the same availability and response time requirements. TSIPs may set up prior agreements with other TSIPs as to which Nodes will act as backups to which other Nodes, and what procedure will be used to undertake the recovery. Recovery from a catastrophic failure shall be designed to be achieved **within 24 hours**.

002-5.6 TIME SYNCHRONIZATION

The following are the time requirements:

a. Time Synchronization

Time shall be synchronized on OASIS Nodes such that all time stamps will be accurate to within 0.5 second of official time. This synchronization may be handled over the network using NTP, or may be synchronized locally using time standard signals (e.g. WWVB, GPS equipment).

b. Network Time Protocol (NTP)

OASIS Nodes shall support the Internet tool for time synchronization, Network Time Protocol (NTP), which is described in RFC-1305, version 3, so that Users shall be able to request the display and the downloading of current time on an OASIS Node for purposes of user applications which might be sensitive to OASIS time.

002-5.7 TS INFORMATION TIMING REQUIREMENTS

The TS Information timing requirements are as follows, except they are waived during emergencies.

a. TS Information Availability

The most recent Provider TS information shall be available on the OASIS Node within 5 minutes of its required posting time at least 98% of the time. The remaining 2% of the time the TS Information shall be available within 10 minutes of its scheduled posting time.

b. Notification of Posted or Changed TS Information

Notification of TS Information posted or changed by a Provider shall be made available within 60 seconds to the log. S&CP Version

c. Acknowledgment by the TSIP

Acknowledgment by the TSIP of the receipt of User Purchase requests shall occur within 1 minute. The actual negotiations and agreements on Purchase requests do not have time constraints.

002-5.8 TS INFORMATION ACCURACY

The following requirements relate to the accuracy of the TS information:

a. TS Information Reasonability

TS information posted and updated by the Provider shall be validated for reasonability and consistency through the use of limit checks and other validation methods.

b. TS Information Accuracy

Although precise measures of accuracy are difficult to establish, Providers shall use their best efforts to provide accurate information.

002-5.9 PERFORMANCE AUDITING

The following are the performance auditing requirements:

a. User Help Desk Support

TSIPs shall provide a "Help Desk" that is available at least during normal business hours (local time zone) and normal work days.

b. Monitoring Performance Parameters

TSIPs shall use their best efforts to monitor performance parameters. Any User shall be able to read or download these performance statistics.

002-5.10 MIGRATION REQUIREMENTS

Whenever a new version of the S&CP is to be implemented, a migration plan will be developed for cutting over to the new version.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
AFFILIATE_FLAG	AFFLAG	2{ALPHANUMERIC}3	Valid Values: YES NO	Set to YES if customer is an affiliate of the provider.
ANC_SERVICE_POINT	ANCPPOINT	0{ALPHANUMERIC}12	Free form text ¹ , null can be used if there is no ancillary service point other than the control area	Name of ancillary service point within a control area, such as a POR/POD/SOURCE/SINK from which the ancillary service is provided.
AS_TYPE	ASTYPE	1{ALPHANUMERIC}20	Valid Values: SC RV RF EI SP SU DT TL BS {Registered}	SC – Scheduling, system Control and Dispatch RV – Reactive supply and Voltage Control RF – Regulation and Frequency response EI – Energy Imbalance SP – Spinning Reserve SU – Supplemental Reserve DT – Dynamic Transfer TL – Real power Transmission Loss BS – System Black Start capability {Registered} – must be registered with www.tsin.com and listed in the ANCSERV Template

¹ For all Data Elements indicated as being free form text, the Field Format designation of ALPHANUMERIC shall represent any valid printable character in the ASCII character set.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
ANC_SVC_LINK	ANCSVCLINK	0{ALPHANUMERIC}300	Formatted string as follows: SC:(AA[:xxx[:yyy[:nnn]]]); RV:(AA[:xxx[:yyy[:nnn]]]); RF:(AA[:xxx[:yyy[:nnn]]]); EI:(AA[:xxx[:yyy[:nnn]]]); SP:(AA[:xxx[:yyy[:nnn]]]); SU:(AA[:xxx[:yyy[:nnn]]]); DT:(AA[:xxx[:yyy[:nnn]]]); TL:(AA[:xxx[:yyy[:nnn]]]); BS:(AA[:xxx[:yyy[:nnn]]]); {Registered}:(AA[:xxx[:yyy[:nnn]]]);	The method for linking ancillary services to a transmission service request. The provider and capacity of each ancillary service is identified using the formatted string: SC:(AA[:xxx[:yyy[:nnn]]]); RV:(AA[:xxx[:yyy[:nnn]]]); RF:(AA[:xxx[:yyy[:nnn]]]); EI:(AA[:xxx[:yyy[:nnn]]]); SP:(AA[:xxx[:yyy[:nnn]]]); SU:(AA[:xxx[:yyy[:nnn]]]); DT:(AA[:xxx[:yyy[:nnn]]]); TL:(AA[:xxx[:yyy[:nnn]]]); BS:(AA[:xxx[:yyy[:nnn]]]); {Registered}:(AA[:xxx[:yyy[:nnn]]]); where AA is the appropriate PRIMARY_PROVIDER_CODE, SELLER_CODE, or CUSTOMER_CODE, and represents the company providing the ancillary services. AA may be unspecified for xxx type identical to FT, in which case the : character must be present and precede the FT type. If multiple AA terms are necessary, then each AA grouping will be enclosed within parenthesis, with the overall group subordinate to the AS_TYPE specified within parenthesis and where xxx represents either: FT – to indicate that the Customer will determine ancillary services at a future time, or SP – to indicate that the Customer will self-provide the ancillary services, or RQ – to indicate that the Customer is asking the OASIS Node to initiate the process for making an ancillary services reservation with the indicated Provider or Seller on behalf of the Customer. The Customer must then continue the reservation process with the Provider or Seller. If the transmission services request is for preconfirmed service, then the ancillary services shall also be preconfirmed, or

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
ANC_SVC_LINK (cont.)				AR – to indicate an assignment reference number sequence follows. The terms yyy and nnn are subordinate to the xxx type of AR. yyy represents the ancillary services reservation number (ASSIGNMENT_REF) and nnn represents the capacity of the reserved ancillary services. Square brackets are used to indicated optional elements and are not used in the actual linkage itself. Specifically, the :yyy is applicable to only the AR term and the :nnn may optionally be left off if the capacity of ancillary services is the same as for the transmission services, and optionally multiple ancillary reservations may be indicated by additional (xxx[:yyy[:nnn]]) enclosed within parenthesis. If no capacity amount is indicated, the required capacity is assumed to come from the ancillary reservations in the order indicated in the codes, on an "as-needed" basis.
ANC_SVC_REQ	ANCSVCREQ	0{ALPHANUMERIC}100	EI:{M,R,O,U}; SP:{M,R,O,U}; SU:{M,R,O,U}; RV:{M,R,O,U}; RF:{M,R,O,U}; SC:{M,R,O,U}; {registered}:{M,R,O,U }	Ancillary services required for a transmission services offering. The appropriate letter {M,R,O,U} will be assigned to each of the six Proforma FERC ancillary services (see AS_TYPE), where the letters mean the following: <ul style="list-style-type: none"> · (M) Mandatory, which implies that the Primary Provider must provide the ancillary service · (R) Required, which implies that the ancillary service is required, but not necessarily from the Primary Provider · (O) Optional, which implies that the ancillary service is not necessarily required, but could be provided · (U) Unknown, which implies that the requirements for the ancillary service are not known at this time
ASSIGNMENT_REF	AREF	1{ALPHANUMERIC}12	Unique value	A unique reference number assigned by a Transmission Information Provider to provide a unique record for each transmission or ancillary service request. A single transmission or ancillary service request will be over a contiguous time period, i.e. from a START_TIME to an STOP_TIME.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
ATTRIBUTE_UNITS	ATTRUNITS	1{ALPHANUMERIC}20	Free form text	System data attribute units.
ATTRIBUTE_VALUE	ATTRVALUE	1{NUMERIC}12	Real number	System data attribute value.
BID_PRICE	BIDPR	1{NUMERIC}5 + "." + 2{NUMERIC}4	Positive number with 2 to 4 decimals	The current bid price of a Service in dollars and cents. Used by Customers to designate a price being bid.
CAPACITY	CAP	0{NUMERIC}12	Number in units of MW	Transfer capability is the measure of the ability of the interconnected electric system to readily move or transfer power from one area to another over all transmission lines (or paths) between those areas under specified system conditions. In this context "area" may be an individual electric system, powerpool, control area, subregion, or NERC region or portion thereof.
CAPACITY_AVAILABLE	CAPAVAIL	0{NUMERIC}12	Non-negative number in units of MW	Amount of transmission capacity available after all the reductions are applied to CAPACITY_GRANTED over the time interval.
CAPACITY_CURTAILED	CAPCUR	1{NUMERIC}12	Non-negative number in units of MW	The amount of transfer capability curtailed by the Primary provider for emergency reasons.
CAPACITY_GRANTED	CAPGRNT	0{NUMERIC}12	Non-negative number in units of MW	The amount of capacity granted by the seller equal to or less than CAPACITY_REQUESTED by the TC.
CAPACITY_REDUCED	CAPREDU	0{NUMERIC}12	Negative number in units of MW	Amount of transmission capacity reduced.
CAPACITY_REQUESTED	CAPREQ	0{NUMERIC}12	Non-negative number in units of MW	Transmission capacity requested by the Transmission Customer (TC).
CAPACITY_USED	CAPUSED	0{NUMERIC}12	Non-negative number in units of MW	Reflects the peak MW amount of the reservation used to support the scheduled transaction.
CATEGORY	CAT	0{ALPHANUMERIC}25	Valid name from CATEGORY in LIST Template	A name to be used to categorize messages. Valid names would include: , <i>Want-Ad</i> , <i>Curtailement</i> , <i>Outage</i> , <i>OASIS Maintenance Outage</i>
CEILING_PRICE	CEILPR	1{NUMERIC}5 + "." + 2{NUMERIC}4	Positive number with 2 to 4 decimals	Ceiling price of the Service as entered by the Transmission Provider.
COLUMN_HEADERS	HEADERS	1{ALPHANUMERIC} Limited to all the elements names in one Template	Headers separated by commas. Limited to valid Template element names. Must use full element name and not alias.	Example: COLUMN_HEADERS=PATH_NAME,POINT_OF_RECEIPT,POINT_OF_DELIVERY, SOURCE,SINK"
COMPETING_REQUEST_FLAG	COMPREQ	1{ALPHANUMERIC}1	Valid Values: Y N	If "Y", indicates there is one or more competing requests for this reservation. The competing request AREFs are listed in the SELLER_COMMENTS.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
CONTINUATION_FLAG	CONT	1{ALPHANUMERIC}1	Valid Values: Y N	Indicates whether or not this record is a continuation from the previous record.
CONTROL_AREA	AREA	1{ALPHANUMERIC}20	Valid name of a control area	A part of the power system with metered tie lines and capable of matching generation and load while meeting scheduled interchange. Location of Ancillary Services is my CONTROL_AREA.
CURTAILMENT_OPTIONS	CUROPT	0{ALPHANUMERIC}80	Free form text	Customer options, if any, to avoid curtailment
CUSTOMER_CODE	CUST	1{ALPHANUMERIC}6	Unique value, registered on TSIN.COM	Any entity (or its designated agent) that is eligible to view OASIS information, to execute a service agreement, and/or to receive transmission service.
CUSTOMER_COMMENTS	CUSTCOM	0{ALPHANUMERIC}255	Free form text	Informative text. For information to be communicated between the customer and seller.
CUSTOMER_DUNS	CUSTDUNS	9{NUMERIC}9	Unique DUNS number	Unique DUNS number for a Customer
CUSTOMER_EMAIL	CUSTEMAIL	1{ALPHANUMERIC}25	Valid Internet E-Mail address	Internet E-Mail address of Customer contact person.
CUSTOMER_FAX	CUSTFAX	14{ALPHANUMERIC}20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn	FAX phone number of Customer contact person.
CUSTOMER_NAME	CUSTNAME	1{ALPHANUMERIC}25	Free form text	Name of Customer contact person.
CUSTOMER_PHONE	CUSTPHON	14{ALPHANUMERIC}20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn	Telephone of Customer contact person.
DATA_ROWS	ROWS	1{NUMERIC}unlimited	Positive Number	Number of records (rows) of data exclusive of header information that are to be uploaded or downloaded in a file.
DATE_TIME_EFFECTIVE	TIMEEFACT	16{ALPHANUMERIC}16	Valid date and time in seconds yyyy+mo+dd+hh +mm+ss+tz	Date and time a message or service offer is in effect.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
DEAL_REF	DREF	0{ALPHANUMERIC}12	Unique value, Assigned by Customer	The unique reference assigned by a Customer to two or more service purchases to identify each of them as related to others in the same power service deal. These requests may be related to each other in time sequence through a single Provider, or as a series of wheels through multiple Providers, or a combination of both time and wheels. The User uses the DEAL_REF to uniquely identify a combination of requests relating to a particular deal.
DISCRETION_DESCRIPTION	DISCDESC	0{ALPHANUMERIC}1000	Free form text	A detailed description of the discretion being reported.
ELEMENT_NAME	ELEMENT	1{ALPHANUMERIC}40	Valid Template element name	Template element name as indicated in data dictionary.
EMPLOYEE_NAME	EMPNAME	1{ALPHANUMERIC}25	Free form text	Name of person who is transferring from one position to another.
ERROR_MESSAGE	ERROR	1{ALPHANUMERIC}250	Free form text	Error message related to a RECORD_STATUS or REQUEST_STATUS.
EVENT_ID	EVENTID	0{ALPHANUMERIC}25	Free form text	The EVENT_ID Data Element is any regional or interconnection-wide recognized security event identifier for events that are of greater scope than those administered locally by the Provider (e.g., a NERC Security Coordinator assigned identifier corresponding to a particular implementation of the NERC TLR procedure).
FACILITY_CLASS	FACCLASS	0{ALPHANUMERIC}25	Free form text, for example: TRANSFORMER, LINE, FLOWGATE Or as defined in the LIST Template	Type of limiting device such as 'transformer', 'line' or 'flowgate'
FACILITY_LIMIT_TYPE	FACLIMTYP	0{ALPHANUMERIC}25	thermal, stability, voltage or defined in LIST Template	For example: thermal, stability, voltage
FACILITY_LOCATION	FACLOC	0{ALPHANUMERIC}8	Free form text, for example: INTERNAL EXTERNAL Or as defined in the LIST Template	Location of facility that caused the interruption, either internal to the TP or external to the TP grid.
FACILITY_NAME	FACNAME	0{ALPHANUMERIC}100	Free form text	Name of facility, such as name of path or name of flowgate.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
FORMER_COMPANY	FORMCO	1{ALPHANUMERIC}25	Free form text	Former company of the person who is transferring.
FORMER_DEPARTMENT	FORMDEPT	1{ALPHANUMERIC}52	Free form text	Former department of the person who is transferring.
FORMER_POSITION	FORMPOS	1{ALPHANUMERIC}25	Free form text	Former position held by the person who is transferring.
GCA_CODE	GCA	1{ALPHANUMERIC}4	Registered control area company code	Generator Control Area Code. Information from Tag.
IMPACTED	IMPACTED	0{NUMERIC}4	Number	Indicates whether the reservation has been impacted by another reservation. For an original reservation this counter is 0. This counter is incremented by 1 by TSIP on the parent request when its ASSIGNMENT_REF is entered in any other reservation's REASSIGNED_REF or RELATED_REF or in entered in any reduction.
IMPACTING_REF	IMPACTREF	0{ALPHANUMERIC}12	Unique reference	References the ASSIGNMENT_REF of the associated transmission reservation (if applicable) that caused the reduction in capacity.
INITIATING_PARTY	INITPARTY	0{ALPHANUMERIC}4	Registered company code for a Transmission Provider (TP), Security Coordinator (SC) or Control Area (CA)	Company code for company responsible for initiating execution of a transmission security procedure.
INTERFACE_TYPE	INTERFACE	0{ALPHANUMERIC}1	Valid Values: I E	Type of interface define by path: Internal (I) to a control area or External (E) to a control area.
LCA_CODE	LCACODE	0{ALPHANUMERIC}4	Valid registered control area code	Load Control Area registered code. Information comes from tag.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
LIST_ITEM	ITEM	1{ALPHANUMERIC}50	Free form text	Item from LIST, such as list of SELLER, list of PATH_NAME, list of POINT_OF_RECEIPT, list of POINT_OF_DELIVERY, list of SERVICE_INCREMENT, list of TS_CLASS, list of TS_TYPE, list of TS_PERIOD, list of TS_WINDOW, list of TS_SUBCLASS, list of AS_TYPE, list of REQUEST_TYPE, list of ANC_SERVICE_POINT, list of FACILITY_CLASS, list of FACILITY_LIMIT_TYPE, list of PROCEDURE_NAME, list of SYSTEM_ATTRIBUTE, list of SECURITY_TYPE, list of FACILITY_LOCATION, list of NERC_CURTAILMENT_PRIORITY, list of OTHER_CURTAILMENT_PRIORITY, list of CATEGORY, list of TEMPLATE, list of LIST
LIST_ITEM_DESCRIPTION	ITEMDESC	0{ALPHANUMERIC}100	Free form text	A detailed description of the LIST_ITEM.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
LIST_NAME	LIST	1{ALPHANUMERIC}50	Valid Values: LIST SELLER PATH POR POD SERVICE_INCREMENT TS_CLASS TS_TYPE TS_PERIOD TS_SUBCLASS AS_TYPE NERC_CURTAILMENT_PRI ORITY REQUEST_TYPE ANC_SERVICE_POINT FACILITY_CLASS FACILITY_LIMIT_TYPE PROCEDURE_NAME SYSTEM_ATTRIBUTE SECURITY_TYPE FACILITY_LOCATION OTHER_CURTAILMENT_P RORITY CATEGORY TEMPLATE	List of valid names for each of the types of lists. The minimum set of lists defined must be implemented.
MESSAGE	MSG	1{ALPHANUMERIC}200	Free form text	An informative text message.
MODIFYING_COMPANY_CODE	MODCODE	1{ALPHANUMERIC}6	Registered company code for a TP, SC or CA	Contains the registered company code that modified the transaction, used in the audit Templates.
MODIFYING_NAME	MODNAME	0{ALPHANUMERIC}25	Free form text	Contain the name of the person that modified the transaction, used in the audit Templates.
MODIFICATION_REF	MODREF	1{ALPHANUMERIC}12	Valid ASSIGNMENT_REF	Forward pointer. Pointing to next reservation that replaces the current reservation.
NEGOTIATED_PRICE_FLAG	NGPRIFLG	0{ALPHANUMERIC}1	Valid Values: H L null	Set to H if OFFER_PRICE is higher than the currently posted price; Set to L if OFFER_PRICE is lower than the currently posted price

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
NERC_CURTAILMENT_PRIORITY	NERCURT	1{INTEGER}1	Integer	One of the NERC curtailment priorities, documented in LIST Template.
NEW_COMPANY	NEWCO	1{ALPHANUMERIC}25	Free form text	New company of the person who is transferring.
NEW_DEPARTMENT	NEWDEPT	1{ALPHANUMERIC}52	Free form text	New department of the person who is transferring.
NEW_POSITION	NEWPOS	1{ALPHANUMERIC}25	Free form text	New position held by the person who is transferring.
OFFER_PRICE	OFFPR	1{NUMERIC}5 + "." + 2{NUMERIC}4	Positive number with 2 to 4 decimals	The current offered price of a Service in dollars and cents. Used by the Seller to indicate the offering price.
OFFER_START_TIME	OFFSTIME	0,16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Start time of the window during which a Customer may request a discounted offer. If null, no restrictions on the start of the offering time is implied (other than tariff requirements).
OFFER_STOP_TIME	OFFSPTIME	0,16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Stop time of the window during which a Customer may request a discounted offer. (Expiration time of an offer). If null, no restrictions on the end of the offering time is implied (other than tariff requirements).
OPTIONAL_CODE	N/A	0{ALPHANUMERIC}25	Unique path name within region	Unique for Path. If used for directionality, then the first 12 characters shall represent POR, followed by "-", followed by 12 characters which shall represent POD. Used by PATH_NAME.
OTHER_CURTAILMENT_PRIORITY	OTHCUR	0{ALPHANUMERIC}8	Valid Values: {Registered}	Other than NERC curtailment priorities, such as regional curtailment priorities. Suggested format region+number, for example MAPP4, WECC7. Documented in LIST Template and registered with central registry.
OUTPUT_FORMAT	FMT	4{ALPHANUMERIC}4	Valid Values: HTML DATA	Format of response: HTML – hypertext markup language for presentation using a web browser DATA – text for use in a downloaded file.
PATH_CODE	N/A	0{ALPHANUMERIC}12	Unique code for each path as defined by primary provider	Unique code within a Region for each path. Used by PATH_NAME.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
PATH_NAME	PATH	5{ALPHANUMERIC}50	Unique value	<p>The unique name assigned to a single transmission line or the set of one or more parallel transmission lines whose power transfer capabilities are strongly interrelated and must be determined in aggregate. These lines are typically described as being on a path, corridor or interconnection in some regions, or as crossing an interface or cut-plane in other regions. Multiple lines may be owned by different parties and require prorating of capability shares.</p> <p>The name is constructed from the following codes, with each code separated by a "/". Trailing "/" may be omitted, if there are no values for OPTION_CODE and SPARE_CODE:</p> <p>REGION_CODE - 2 chars, unique to OASIS System PRIMARY_PROVIDER_CODE - 4 chars, unique within Region PATH_CODE - 12 chars, unique for Primary Provider OPTIONAL_CODE - 25 chars, unique for Path. If used for directionality, then the first 12 characters shall represent POR, followed by "-", followed by 12 characters which shall represent POD SPARE_CODE - 3 chars.</p>
POINT_OF_DELIVERY	POD	1{ALPHANUMERIC}12, Only non-numeric and non-alpha character allowed is ".".	Unique value within Primary Provider. Only special character allowed is ".", for example, ab.cde.123	One or more point(s) of interconnection on the Transmission Provider's transmission system where capacity and/or energy transmitted by the Transmission Provider will be made available to the Receiving Party. This is used along with Point of Receipt to define a Path and direction of flow on that path. For internal paths, this would be a specific location(s) in the area. For an external path, this may be an area-to-area interface.
POINT_OF_RECEIPT	POR	1{ALPHANUMERIC}12 Only non-numeric and non-alpha character allowed is ".".	Unique value within Primary Provider. Only special character allowed is ".", for example, ab.cde.123	One or more point(s) of interconnection on the Transmission Provider's transmission system where capacity and/or energy transmitted will be made available to the Transmission Provider by the Delivering Party. This is used along with Point of Delivery to define a Path and direction of flow on that path. For internal paths, this would be a specific location(s) in the area. For an external path, this may be an area-to-area interface.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
POSTING_NAME	POSTNAME	1{ALPHANUMERIC}25	Free form text	Name of person who is posting the information on the OASISNode.
POSTING_REF	POSTREF	1{ALPHANUMERIC}12	Unique Value	Assigned by TSIP when Service or Message is received by TSIP. Unique reference can be used by the user to modify or delete the posting.
PRECONFIRMED	PRECONF	2{ALPHA}3	Valid Values: YES NO	Used by Customer to preconfirm sale in Template TRANSREQUEST or ANCREQUEST. If customer indicates sale is preconfirmed, then the response is YES and the customer does not need to confirm the sale.
PRICE_UNITS	UNITS	0{ALPHA}20	Free form text	The units used for CEILING_PRICE, OFFER_PRICE, and BID_PRICE. Examples: \$/MWhr, \$/MWmonth.
PRIMARY_PROVIDER_CODE	PROVIDER	1{ALPHANUMERIC}4	Unique code	Unique code for each Primary Provider. Used by PATH_NAME and in URL. Registered as part of URL at www.tsin.com.
PRIMARY_PROVIDER_COMMENTS	PPROVCOM	0{ALPHANUMERIC}255	Free form text	Informative text. Usually entered by the Primary Provider through a back end system. For information communicated between primary transmission provider and all other parties.
PRIMARY_PROVIDER_DUNS	PPROVDUNS	9{NUMERIC}9	Valid DUNS number	Unique code for each Primary. Provided by Dun and Bradstreet.
PROCEDURE_NAME	PROCNAME	0{ALPHANUMERIC}25	Valid Values: NERC TLR WECC USF {Registered}	Name of a transmission security procedure: - NERC TLR as defined in NERC Policy 9 - WECC USF as defined in WECC Policy - Local procedure as registered by Transmission Providers
PROCEDURE_LEVEL	PROCLVL	1{ALPHANUMERIC}25	Valid Values: {NERC TLR Levels} {WECC USF Levels} {Registered}	Levels or stages associated with actions to be taken in implementation of a transmission security procedure as defined in: - NERC Policy 9 for the NERC TLR procedure - WECC Policy for the WECC USF procedure - Local procedures as registered by Transmission Providers

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
PROVIDER_ACTION	PROVACT	1{ALPHANUMERIC}25	Free form text, for example: DENIED CURTAILED INTERRUPTED	Indicates the particular action taken by the Transmission Provider with respect to the scheduled transaction; specific values to be returned are, DENIED if the schedule was not started as requested, CURTAILED if the scheduled MW was limited for reliability reasons, or INTERRUPTED if the scheduled MW was limited for economic reasons.
REASSIGNED_CAPACITY	RASCAP	1{NUMERIC}12	Positive number, cannot exceed previous assigned capacity	The amount of transfer capability that was reassigned from one entity to another.
REASSIGNED_REF	REREF	1{ALPHANUMERIC}12	Unique value	Contains the ASSIGNMENT_REF of any preceding (parent) requests that are affected by this request. Used only for secondary market sales.
REASSIGNED_START_TIME	RESSTIME	16{ALPHANUMERIC}16	Valid date and time to seconds: yyyy+mo+dd+hh+tz	Beginning date and time of the reassigned transmission service.
REASSIGNED_STOP_TIME	RESSPTIME	16{ALPHANUMERIC}16	Valid date and time to hour: yyyy+mo+dd+hh+tz	Date and time of the end of the transmission service that is reassigned to another User.
RECORD_STATUS	RECSTATUS	1{NUMERIC}3	Error number	Record status indicating record was successful or error code if unsuccessful. 200 = Successful.
RECORD_TYPE	RECTYPE	1{ALPHA}1	Valid Values: I U D	Indicates the type of information reported in a response record generated by an audit Template. "I" designates information as it was initially inserted (posted) on OASIS; "U" designates information updated (modified) on OASIS; "D" designates deleted information as it appeared on OASIS just prior to being deleted (as appropriate).
REDUCTION_REASON	REDREAS	1{ALPHANUMERIC}50	Free form text	Reason for the reduction
REDUCTION_TYPE	REDTYPE	1{ALPHANUMERIC}25	Free form text	Type of reduction such as REDIRECT, INTERRUPTION, RESALE, DISPLACEMENT

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
REGION_CODE	N/A	1{ALPHANUMERIC}2	Unique within OASIS System	Defined for NERC regions, with the following defined: S – SERC T – ERCOT A – MAPP P – SPP N – NPCC W – WECC F – FRCC R – RFC Second character or digit reserved for subregion id as defined by each region.
RELATED_REF	RELREF	1{ALPHANUMERIC}12	Unique reference	Contains the ASSIGNMENT_REF of any preceding (parent) requests that are affected by this request.
REQUEST_REF	RREF	0{ALPHANUMERIC}12	Unique value	A reference uniquely assigned by a Customer to a request for service from a Provider.
REQUEST_STATUS	RSTATUS	1{NUMERIC}3	Error number	Message status indicating message was successful (if all RECORD_STATUS show success) or error code if any RECORD_STATUS showed unsuccessful. 200 = Successful

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
REQUEST_TYPE	REQTYPE	1{ALPHA}30	Valid Values: ORIGINAL RESALE RENEWAL MATCHING DEFERRAL REDIRECT RELINQUISH {Registered}	ORIGINAL – typical reservation requests submitted to the Primary Provider (as the Seller of the transmission or ancillary service). RESALE – secondary market requests submitted to a Transmission Customer as Secondary Provider. RENEWAL – request to renew an expiring transmission reservation. MATCHING – request to meet or exceed a competing request to retain transmission service (right of first refusal). DEFERRAL – request to defer or apply for extension on start of transmission service REDIRECT – request to redirect all or portion of a transmission reservation to an alternate POR/POD and/or make other changes to the terms of service as permitted. RELINQUISH – request to release all or a portion of the capacity of a Redirect on a Non-Firm basis to the Firm Parent Reservation. {registered} – Primary Provider's may register values for REQUEST_TYPE to implement specific provisions of their Tariffs.
RESPONSE_TIME_LIMIT	RESPTL	16{ALPHANUMERIC}16	Valid date and time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time to seconds by when a response must be received from a Customer.
RESPONSIBLE_PARTY	PARTY	1{ALPHANUMERIC}4	Registered company code for a TP, SC or CA	The company code of the entity responsible for administering a transmission security procedure.
RESPONSIBLE_PARTY_NAME	PARTNAME	1{ALPHANUMERIC}25	Free form text	The name of the person responsible for granting the discretion.

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Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
RETURN_TZ	TZ	2{ALPHANUMERIC}2	Valid Values: AD AS PD PS ED ES MD MS CD CS UT	A time zone code, indicating the base time zone, and whether daylight saving time is to be used. This field may be set by a Customer in a query. Returned date and time data is converted to this time zone. Time zones: AD, AS – Atlantic time ED, ES – Eastern time CD, CS – Central time MD, MS – Mountain time PD, PS – Pacific time UT – Universal time
SALE_REF	SREF	0{ALPHANUMERIC}12	Unique value	Identifier which is set by seller (including Primary Provider) when posting a service for sale.
SCHEDULE_GRANTED	SCHEDGRNTED	0{NUMERIC}12	Non-negative number in units of MW	Reflects the MW value of energy actually scheduled by the Transmission Provider at either the point of receipt or delivery, whichever is larger, over the START_TIME/STOP_TIME time interval.
SCHEDULE_LIMIT	SCHEDULELIM	0{NUMERIC}12	Non-negative number in units of MW	Reflects the maximum MW value over the START_TIME/STOP_TIME interval that the Provider has determined can be scheduled.
SCHEDULE_PRIORITY	SPRIORITY	0{NUMERIC}2	Positive Number	Identifies the relative priority of this particular interchange transaction as compared to all other scheduled transactions with respect to the application of curtailments or interruptions. SCHEDULE_PRIORITY would typically reflect the curtailment priority Data Elements associated with the OASIS transmission reservation used to support the schedule (i.e., NERC_CURTAILMENT_PRIORITY or OTHER_CURTAILMENT_PRIORITY).
SCHEDULE_REF	SCHDREF	0{ALPHANUMERIC}20	Unique reference	Unique reference assigned by Transmission Provider to a posting of a schedule information.
SCHEDULE_REQUESTED	SCHEDULEREQ	0{NUMERIC}12	Non-negative number in units of MW	Scheduled energy requested by the Transmission Customer (TC).
SECURITY_REF	SECREP	1{ALPHANUMERIC}10	Unique value	Unique value generated by company initiating the security for each security event in the SECURITY Template.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
SECURITY_TYPE	SECTYPE	1{ALPHANUMERIC}6	Valid Values: OUTAGE LIMIT	Identifies the type of information posted for the event; restricted values are: OUTAGE – for postings reflecting the state of critical transmission facilities LIMIT – for postings reflecting the implementation of security procedures to limit or reduce scheduled transactions.
SELLER_CODE	SELLER	1{ALPHANUMERIC}6	Unique value	Organization name of Primary Provider or Reseller.
SELLER_COMMENTS	SELCOM	0{ALPHANUMERIC}255	Free form text	Informative text provided by the Seller. For information communicated between the seller (either Primary Provider or reseller) to the customer of the services.
SELLER_DUNS	SELDUNS	9{NUMERIC}9	Valid DUNS number	Unique Data Universal Numbering System provided by Dun and Bradstreet. Code for a Primary Provider or Seller.
SELLER_EMAIL	SELEMAIL	5{ALPHANUMERIC}60	Valid network reference	E-Mail address of Seller contact person.
SELLER_FAX	SELFAX	14{ALPHANUMERIC}20	Area code and telephone number, plus any extensions Example: (aaa)-nnn-nnnn xnnnn	The fax telephone number for contact person at Seller.
SELLER_NAME	SELNAME	1{ALPHANUMERIC}25	Free form text	The name of an individual contact person at the Seller.
SELLER_PHONE	SELPHONE	14{ALPHANUMERIC}20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn	The telephone number of a contact person as a Seller.
SELLER_REF	SELREF	0{ALPHANUMERIC}12	Free form text	Identifier which is set by seller (including Primary Provider) to uniquely identify reservation requests for seller's own internal use.
SERVICE_DESCRIPTION	SVCDESC	0{ALPHANUMERIC}200	Free form text	Information regarding a service.
SERVICE_INCREMENT	SRVINCR	1{ALPHANUMERIC}8	Valid Values: HOURLY DAILY WEEKLY MONTHLY YEARLY {Registered}	The transmission service increments provided. Five are pre-defined, while additional increments can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template.
SERVICE_NAME	SVCNAME	1{ALPHANUMERIC}25	Free form text	Name of service affected by the discretionary action.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
SERVICE_TYPE	SVCTYPE	1{ALPHANUMERIC}25	Free form text	Type of service affected by the discretionary action.
SINK	SINK	0{ALPHANUMERIC}14	Valid area name	The area in which the SINK is located.
SOURCE	SOURCE	0{ALPHANUMERIC}14	Valid area name	The area in which the SOURCE is located.
SPARE_CODE	N/A	0{ALPHANUMERIC}3	Defined by region	Spare code to be used at a later time. Used by PATH_NAME.
STANDARDS_OF_CONDUCT_ISSUES	STDISSUE	0{ALPHANUMERIC}800	Free form text	Issues that were in violation of the FERC Standards of Conduct. This text may include a reference pointer to a more detailed description.
START_TIME	STIME	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Start date and clock time of a service. When used as a Query Variable, it requires the return of all items whose Stop time is after the Start time. Note that for some Templates when used as a Query Variable the time may be only valid up to the hour, day or month. If more data is given than is valid, the hour, day or month will be used to make the date and time inclusive, i.e. date or time will be truncated to valid hour, day or month.
START_TIME_POSTED	STIMEP	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Query parameter to indicate all the records are to be retrieved that were posted on or after this time.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
START_TIME_QUEUED	STIMEQ	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Start date and clock time of a service, used for requesting transactions queued after this time.
STATUS	STATUS	5{ALPHANUMERIC}25	Valid Values: QUEUED INVALID RECEIVED STUDY REBID COUNTEROFFER DECLINED SUPERSEDED ACCEPTED REFUSED CONFIRMED WITHDRAWN DISPLACED ANNULLED RETRACTED	<p>QUEUED – initial status assigned by TSIP on receipt of "customer services purchase request".</p> <p>INVALID – assigned by TSIP or Primary Provider indicating an invalid field in the request, such as improper POR, POD, source, sink, etc. (Final state).</p> <p>RECEIVED – assigned by Primary Provider or Seller to acknowledge QUEUED requests and indicate the service request is being evaluated, including for completing the required ancillary services.</p> <p>STUDY – assigned by Primary Provider or Seller to indicate some level of study is required or being performed to evaluate service request.</p> <p>REFUSED – assigned by Primary Provider or Seller to indicate service request has been denied due to lack of availability of transfer capability. (Final state).</p> <p>COUNTEROFFER – assigned by Primary Provider or Seller to indicate that a new OFFER_PRICE is being proposed or that CAPACITY_GRANTED is less than CAPACITY_REQUESTED.</p> <p>REBID – assigned by Customer to indicate that a new BID_PRICE is being proposed.</p> <p>SUPERSEDED – assigned by Primary Provider or Seller when a request which has not yet been confirmed is preempted by another reservation request. (Final state).</p>

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
STATUS (cont.)				<p>ACCEPTED – assigned by Primary Provider or Seller to indicate the service request at the designated OFFER_PRICE and CAPACITY_GRANTED has been approved/accepted. If the reservation request was submitted PRECONFIRMED and CAPACITY_GRANTED is equal to CAPACITY_REQUESTED, the OASIS Node shall immediately set the reservation status to CONFIRMED. Depending upon the type of ancillary services required, the Seller may or may not require all ancillary service reservations to be completed before accepting a request.</p> <p>DECLINED – assigned by the Primary Provider or Seller to indicate that the terms and conditions, such as the BID_PRICE, are unacceptable and that negotiations are terminated or that contractual terms have not been met. (Final state).</p> <p>RETRACTED = assigned by Primary Provider or Seller when the Customer fails to confirm or withdraw the request within the required time period. (Final state).</p> <p>WITHDRAWN – assigned by the Customer at any point in request evaluation to withdraw the request from any further action. (Final state).</p> <p>CONFIRMED – assigned by the Customer in response to the Primary Provider or Seller posting "ACCEPTED" status, to confirm service. Once a request has been "CONFIRMED", a transmission service reservation exists. (Final state, unless overridden by DISPLACED or ANNULLED state).</p>

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
STATUS (cont.)				<p>DISPLACED – assigned by Primary Provider or Seller when a "CONFIRMED" reservation from a Customer is displaced by a higher priority reservation, and the Customer is not offered or has not exercised right of first refusal (i.e. refused to match terms of new request). (Final state).</p> <p>ANNULLED – assigned by the Seller when, by mutual agreement with the Customer, a confirmed reservation is to be voided or assigned unilaterally by the Primary Provider when a confirmed reservation is to be voided. (Final state).</p>
STATUS_COMMENTS	STACOM	0{ALPHANUMERIC}255	Free form text	Informative: For information to be communicated by any party to all other parties.
STATUS_NOTIFICATION	STATNOT	0{ALPHANUMERIC}200	<p>http://URL:portnumber/direco try/cgi script/query parameters or Mailto: <e-mail address></p>	<p>Shall contain the protocol field "http:", which designates the notification method/protocol to be used, followed by all resource location information required; the target domain name and port designations shall be inserted into the notification URL based on the Customer's Company registration information. The resource location information may include directory information, cgi script identifiers and URL encoded query string name/value pairs as required by the Customer's application.</p> <p>or Mailto and email address for the status information the Customer wants to receive upon a change in STATUS of transstatus, or ancstatus.</p>

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
STOP_TIME	SPTIME	16{ALPHANUMERIC}16	Valid date and time yyyy+mo+dd+hh +mm+ss+tz	Stop date and clock time. When used as a Query Variable, it requires the return of all items which start before the Stop time. Note that for some Templates when used as a Query Variable the time may be only valid up to the hour, day or month. If more data is given than is valid, the hour, day or month will be used to make the date and time inclusive, i.e. date or time will be increased to include STOP_TIME.
STOP_TIME_POSTED	STTIMEP	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Query parameter to indicate all the records are to be retrieved that were posted on or before this time.
STOP_TIME_QUEUED	SPTIMEQ	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Stop date and clock time, used for requesting transactions queued before this time.
SUBJECT	SUBJ	0{ALPHANUMERIC}80	Free form text	Informative text used to summarize a topic in a message.
SYSTEM_ATTRIBUTE	SYSATTR	0{ALPHANUMERIC}15	Valid Values: CBM TRM TTC NATC RATC or listed in the LIST Template	Type of system data viewed by SYSTEMDATA Template: CBM – Capacity Benefit Margin TRM – Transmission Reliability Margin TTC – Total Transmission Capability NATC – Non-recallable (Firm) Available Transmission Capability RATC – Recallable (Non-firm) Available Transmission Capability {registered} – Provider specific registered name for the data posted
TARIFF_REFERENCE	TARIFF	0{ALPHANUMERIC}150	Free form text	Tariffs approved by FERC Name and description of Tariff
TEMPLATE	TEMPL	1{ALPHANUMERIC}20	Valid Name of Template from Standard 002-4.3.1 or from LIST Template	The name of a logical collection of DATA_ELEMENTS in a User's interaction with an OASIS Node.
TIME_OF_LAST_UPDATE	TLUPDATE	16{ALPHANUMERIC}16	Valid date and time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time to seconds that data was last updated. May be used to search data updated since a specific point in time.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
TIME_POSTED	TIMEPST	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time a message is posted.
TIME_QUEUED	TIMEQ	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time that the request was queued.
TIME_STAMP	TSTAMP	16{ALPHANUMERIC}16	Valid date and Time to seconds yyyy+mo+dd+hh+mm+ss+tz	Time data is created.
TRANSACTION_ID	TRANSID	1{ALPHANUMERIC}30	Free form text	Identifier associated with an interchange transaction that may span multiple SCHEDULE_REF records. May be the NERC Tag id as specified in the NERC Electronic Tagging Functional Specification.
TS_CLASS	TSCLASS	1{ALPHANUMERIC}20	Valid Values: FIRM NON-FIRM TTC SECONDARY {Registered}	The transmission service classes provided. Four are pre-defined, while additional classes can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template page. SECONDARY is defined as alternate points of receipt or delivery for POINT_TO_POINT, or as non-designated resources for NETWORK service.
TS_PERIOD	TSPER	1{ALPHANUMERIC}20	Valid Values: ON_PEAK OFF_PEAK FULL_PERIOD {Registered}	The transmission service periods provided. Three are pre-defined, while additional periods can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template.
TS_SUBCLASS	TSSUBC	0{ALPHANUMERIC}20	Free form text	The transmission service subclasses provided. These are free form.
TS_TYPE	TSTYPE	1{ALPHANUMERIC}20	Valid Values: POINT_TO_POIN T NETWORK ATC {Registered}	The transmission service types provided. Three are pre-defined, while additional types can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template.

003-0 OASIS DATA DICTIONARY, Version 1.4				
Data Dictionary Element Name	Alias	Field Format : minimum characters {type of ASCII} maximum characters	Restricted Values	Definition of Data Element
TS_WINDOW	TSWIND	1{ALPHANUMERIC}20	Valid Values: FIXED SLIDING EXTENDED NEXT_INCREMENT {Registered }	The transmission service windows provided. Four are pre-defined, while additional windows can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template.
TZ	TZ	2{ALPHANUMERIC}2	Valid Values: AD AS PD PS ED ES MD MS CD CS UT	Valid time zone and indication whether daylight savings time is to be used Time zones: AD, AS – Atlantic time = AD, AS ED, ES – Eastern time = ED, ES CD, CS – Central time = CD, CS MD, MS – Mountain time = MD, MS PD, PS – Pacific time = PD, PS UT – Universal time = UT
VALID_FROM_TIME	VALFTIME	16{ALPHANUMERIC}16	Valid date and time yyyy+mo+dd+hh +mm+ss+tz	Date and time after which the message is valid.
VALID_TO_TIME	VALTTIME	16{ALPHANUMERIC}16	Valid date and time yyyy+mo+dd+hh +mm+ss+tz	Date and time before which the message is valid.
VERSION	VER	1{REAL NUMBER}6	Range of 1.0 to 9999.9	Specifies which version of the OASIS Standards and Communication Protocol to use when interpreting the request.

Coordinate Interchange

Purpose

Incorporate necessary revisions to the approved NAESB Coordinate Interchange Business Practice (R03013) to include added definitions, Industry transformation from Reliability Authority (RA) to the Reliability Coordinator (RC), and improvements to certain requirements of the Standard to ensure it is “lock-step” with the NERC Coordinate Interchange Standard.

Applicability

Balancing Authority (BA), Reliability Coordinator (RC), Interchange Authority (IA), Transmission Service Provider (TSP), Purchasing-Selling Entity (PSE), Generator-Provider Entity (GPE), Load-Serving Entity (LSE), and any Purchasing-Selling Entity whose transmission approval rights are cited (TPSE).

Definition of Terms

- 004-0.1** **Approval Entity** – An entity that has approval rights for an Arranged Interchange; this includes the Transmission Service Providers (TSP), scheduling Balancing Authorities (BA), Generator-Providing Entity (GPE), and the Load-Serving Entity (LSE) that are included in the Arranged Interchange, as well as any Purchasing Selling Entity (PSE) whose transmission rights are cited (TPSE) in the Arranged Interchange.
- 004-0.2** **Arranged Interchange** – The state where the Interchange Authority has received the Interchange information (initial or revised).
- 004-0.3** **Balancing Authority (BA)** – The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.
- 004-0.4** **Balancing Authority Area (BAA)** - The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.
- 004.0.5** **Confirmed Interchange** – The state where the Interchange Authority has verified the Arranged Interchange.
- 004-0.6** **Curtailement** - A reduction in the scheduled capacity or energy delivery of an Interchange transaction.
- 004-0.7** **Generator-Providing Entity (GPE)** – The Purchasing Selling Entity who is responsible for providing the source generation from owned, affiliated, or contractually bound generation.

- 004-0.8** **Implemented Interchange** – The state where the Balancing Authority enters the Confirmed Interchange into its Area Control Error equation.
- 004-0.9** **Interchange** – Energy transfers that cross Balancing Authority boundaries.
- 004-0.10** **Interchange Authority (IA)** - The responsible entity that authorizes implementation of valid and balanced Interchange schedules between Balancing Authority Areas, and ensures communication of Interchange information for reliability assessment purposes.
- 004-0.11** **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.
- 004-0.12** **Interconnected Operations Service** – A service (exclusive of basic energy and transmission services) that is required to support the reliable operation of the interconnected bulk electric systems.
- 004-0.13** **Load-Serving Entity (LSE)** – The responsible entity that secures energy and transmission service (and related Interconnected Operations Services) to serve the electrical demand and energy requirements of its end-use customers.
- 004-0.14** **Market Assembly** – The function responsible for coordinating the submittal of a completed and accurate Arranged Interchange from the Requesting Purchasing-Selling Entity to the Interchange Authority within an organized Market.
- 004-0.15** **Market Period** – The period of time beginning with the Requesting Purchasing-Selling Entity (PSE), or its designee, making required purchase, sale, and transmission service arrangements to support the Arranged Interchange through the period of time when the Interchange Authority receives the Arranged Interchange.
- 004-0.16** **Purchasing-Selling Entity (PSE)** – The entity that purchases or sells, and takes title to, energy, capacity, and Interconnected Operations Services. Purchasing-Selling Entities may be affiliated or unaffiliated merchants and may or may not own generating facilities.
- 004-0.17** **Reliability Coordinator (RC)** - The entity with the highest level of authority that has responsibility for the reliable operation of the bulk electric system, has the wide area view of the bulk electric system, and has the operating tools, processes and procedures, including the authority to prevent or mitigate emergency operating situations in both next-day analysis and real-time operations. The Reliability Coordinator has the purview that is broad enough to enable the calculation of interconnection reliability operating limits, which may be based on the operating parameters of transmission systems beyond any transmission operator’s vision.

- 004-0.18** **Reliability Period** – The period of time beginning with the Interchange Authority (IA) requesting approvals from the reliability Approval Entities through the completion of the physical flow of the energy associated with the originally submitted Arranged Interchange.
- 004-0.19** **Request For Interchange (RFI)** - A collection of required data, as defined in Appendix C of this standard, necessary for the purpose of submitting to the Interchange Authority as an Arranged Interchange.
- 004-0.20** **Requesting Purchasing-Selling Entity (PSE)** – The entity that prepares and submits the Request For Interchange (RFI) to the Interchange Authority (IA) and holds the transmission reservation being presented for use.
- 004-0.21** **Sink Balancing Authority** – The Balancing Authority in which the load (sink) is located for an Interchange Transaction.
- 004-0.22** **Source Balancing Authority** – The Balancing Authority in which the generation (source) is located for an Interchange Transaction.

Business Practice Requirements

- 004-1** All requests to implement bilateral Interchange (excluding Interchange for emergency energy) between a Source Balancing Authority and a Sink Balancing Authority, where a Balancing Authority is located in either the Eastern or Western Interconnection, shall be accomplished by the submission of a completed and accurate Request For Interchange (RFI) to the Interchange Authority (IA).
- 004-1.1** To the extent that Intra BA transactions are submitted as a Request for Interchange (RFI), those transactions will be subject to all provisions of this standard.
- 004-1.2** RESERVED
- 004-1.3** RESERVED
- 004-1.4** RESERVED
- 004-1.5** RESERVED
- 004-1.6** RESERVED
- 004-2** Until other means are adopted by NAESB, the primary method of submitting the Request For Interchange (RFI) to the Interchange Authority shall be electronic (e-Tag) and in accordance with the Version 1.7.097 *Electronic Tagging Functional Specification*.
- 004-2.1** A backup or redundant electronic system shall be available for immediate use should the primary electronic means become disabled.

- 004-2.2** RESERVED
- 004-3** Arranged Interchange that crosses Interconnection Boundaries (Eastern, Western, or ERCOT) shall be subject to the submittal and approval timing requirements associated with the most restrictive interconnection involved in the Interchange.
- 004-3.1** For Interchange where the sink is in the Western Interconnection for same day transactions, the last Purchasing-Selling Entity before the DC Tie in the Eastern Interconnection shall be responsible for submitting the e-Tag.
- 004-4** In the event of e-Tag system component failure, the requirements and procedures contained within Appendix A “Electronic Tagging Service Performance Requirements and Failure Procedures” shall be followed.
- 004-4.1** RESERVED
- 004-4.2** RESERVED
- 004-5** It shall be the responsibility of the load serving Purchasing-Selling Entity (PSE), or its designee, to ensure the completed and accurate Request For Interchange (RFI) contains, at a minimum, the information specified in Appendix C “Required and Correctable Tag Data”.
- 004-6** Approval Entities shall only be allowed to take actions against an Arranged Interchange as specified in Appendix B “Interchange Transaction Tag Actions”.
- 004-6.1** Prior to the expiration of the market assessment period defined in the Appendix D, “Timing Table”, Column B, the TPSE, LSE, and GPE may respond to a request from the Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange. Note: The TPSE, LSE, and GPE have optional approval rights. If the TPSE, LSE, or GPE does not respond, these rights will be treated as if approved. In addition, if the TPSE, LSE, or GPE is also the PSE creating the tag, these rights will be treated as approved.
- 004-6.1.1** Each TPSE, LSE, and GPE shall assess the Arranged Interchange for completeness and accuracy of the information contained in the Arranged Interchange.
- 004-6.1.2** If the PSE, LSE, and GPE do not respond to a request from the Interchange Authority, the Interchange is considered passively approved.
- 004-6.2** RESERVED
- 004-7** All information on energy purchase, energy sale, and transmission service arrangements required for the RFI shall be performed prior to being submitted to the IA.

At its discretion, the Requesting Purchasing-Selling Entity may defer this responsibility to the Market Assembly function.

004-7.1 RESERVED

004-8 **EASTERN AND WESTERN INTERCONNECTION TIMING REQUIREMENTS:**

004-8.1 The completed and accurate Request for Interchange (RFI), or modification to an Arranged Interchange submitted to the Interchange Authority shall be subject to the timing requirements contained in this standard under Appendix D “Timing Table.”

004-8.2 Transactions that cross Interconnection boundaries involving ERCOT shall follow the timing requirements contained within this Standard.

004-8.3 RESERVED

004-9 All denials of Arranged Interchange by an Approval Entity during the assessment period (reliability and market) shall be accompanied by the reason for such denial and communicated to the Interchange Authority and by the Interchange Authority to the Requesting Purchasing-Selling Entity.

004-10 Any changes to the status of the Arranged, Confirmed, or Implemented Interchange shall be communicated by the Interchange Authority to all involved parties of the Interchange, such as Balancing Authorities, Reliability Coordinators, Generator-Providing Entity, Load-Serving Entity, and Transmission Service Providers.

004-11 The Requesting PSE shall have the right to request modifications to the Arranged, Confirmed or Implemented Interchange for non-reliability related issues according to the timing requirements in Appendix D set forth in this Standard. For Implemented Interchange, only “future” hours may be modified.

004-11.1 The Requesting PSE can request to increase or decrease the energy level or the committed transmission(s) profile of an Arranged, Confirmed or Implemented Interchange. For Implemented Interchange, only “future” hours may be modified.

a) In the case of an increase in the energy level, the Requesting PSE must provide and modify the necessary transmission capacity to cover the increased energy flow.

004-11.2 The Requesting PSE shall have the right to request an extension to the Arranged, Confirmed or Implemented Interchange energy profile to reflect a desire to flow energy during hours not previously specified.

004-11.2.1 The Requesting PSE must provide the necessary transmission capacity with the extension.

004-11.3 If the modification is denied by any Approval Entity, the previous confirmed or Implemented Interchange remains valid, including the duration period.

- 004-12** All parties involved in the Arranged Interchange shall have, or arrange to have, personnel and facilities on site and immediately available for notification of changes to the Arranged Interchange from the beginning of the Market Period through the time when the energy flow of the Implemented Interchange has been completed.
- 004-13** Unless provided for under a FERC-approved market mechanism, energy accounting for all Interchange shall be accomplished via Interchange Block Accounting.
- 004-14** Settlement of losses shall be either handled as financial or as payment in-kind in accordance with the Transmission Service Provider tariff.
- 004-14.1** For losses handled as payment in-kind, the PSE, or its designee, shall communicate to the IA, via Arranged Interchange the amount of MW losses and the entity that should receive them along the Interchange path.
- 004-15** All Reliability Coordinators, Balancing Authorities, Transmission Service Providers, Generator-Providing Entity, Load-Serving Entity, and other entities involved in an Interchange request shall not disclose the Interchange Transaction information to any PSE not involved in the Interchange transaction.
- 004-16** After a curtailment of Interchange has ended, the Sink Balancing Authority shall return the Interchange profile to the previous level, unless otherwise specified by the entity submitting the Request For Interchange.
- 004-17** Default ramp duration for the North American Interconnection shall be as follows:
- 004-17.1** Default ramp duration for the Eastern Interconnection shall be 10 minutes equally across the start and end times of the Implemented Interchange (i.e., 5 minutes before start and 5 minutes after the end time of the implemented Interchange) unless otherwise agreed to by all parties involved in the Implemented Interchange.
- 004-17.2** Default ramp duration for the Western Interconnection shall be 20 minutes equally across the top of the hour (i.e., 10 minutes before start and 10 minutes after the end time of the Implemented Interchange) of the Implemented Interchange unless otherwise agreed to by all parties involved in the Implemented Interchange.

004-A Appendix A

Electronic Tagging Service Performance Requirements and Failure Procedures

This document describes the performance requirements of the e-Tag System and the procedures to be followed in the event of an e-Tag System component's failure. Due to the importance of accurate information flow, these procedures and requirements have been developed to ensure that reliable data communications remain available at all times.

A. Performance Requirements

Tag Agent Service Requirements

Entities that are required to use e-Tag agent services are responsible for obtaining an e-Tag agent service in order to conduct business; there are no exemptions to this requirement. There is no specific requirement against which performance should be measured. However, in cases of e-Tag agent service failure, non-receipt of critical information (such as curtailment notifications, transaction denials, and schedule modifications) due to performance problems shall be the responsibility of the e-Tag agent user.

While it is acceptable for an entity to contract with a third-party to provide for this requirement, it should be understood that the e-Tag agent user is ultimately responsible for the provision of the service. The non-performance of a third party does not excuse the entity from the obligation to provide the service.

e-Tag Approval Services

Entities that are required to employ e-Tag approval services are responsible for providing an e-Tag approval service as well as providing a level of redundancy; there are no exemptions from this requirement. At a minimum, e-Tag approval services may not have greater than 1.0% of the e-Tags sent to their system within a calendar month be determined by the Interchange Authority Service as having a state of "COMM_FAIL." While there is no specific level of redundancy that is required by this Appendix, sufficient redundancy must be in place that the entity is confident of achieving this standard.

While it is acceptable for an entity to contract with a third-party to provide for this requirement, it should be understood that the entity required to employ the e-Tag approval service is ultimately responsible for the provision of the service. The non-performance of a third party does not excuse the entity from the obligation to provide the service.

In order to monitor compliance with this requirement, the Balancing Authorities will arrange with their Authority Services to generate compliance reports at the beginning of each month determining this metric for the previous month on a Provider-by-Provider basis. These results should be available for investigation of any violations, and the results of this investigation may be posted once finalized.

Interchange Authority (IA) Services

As the Interchange Authority service is the most critical element of the e-Tag system, it must meet much higher standards. These standards can be divided into two areas: Implementation, and Policies and Performance.

Implementation

Interchange Authority services must be implemented in a manner that provides for redundancy and fault-tolerance through hardware and software; there are no exemptions to this requirement. Specifically, an *Interchange* Authority service must provide, at a minimum, the following:

- Two or more connections to the Internet, which may either be available concurrently or be switch able on demand (within five minutes);
- Redundant/Fault-Tolerant Networking Equipment between the Internet providers' demarcation points and the computer systems, as well as between each of the components of the system required to be inter-networked to provide functionality (i.e., FDDI Rings, dual homing, etc...);
- Redundant/Fault-Tolerant computer systems that can immediately recover from a loss of any single component (i.e., mirrored databases, web clusters, etc...).

Providers of Interchange Authority services may be required to provide documented explanations of how they meet or exceed the above requirements. These documents may be evaluated for fitness and will be held in confidence.

Policies and Performance

The following shall be required of all Interchange Authority services:

- All scheduled outages must be performed between the hours of 01:00 CST and 04:00 CST. Any maintenance that must be performed outside this three hour window must be accomplished through the use of redundant systems in such a manner that no outage is visible;
- Notice of Scheduled outages must be given to the public at least 24 hours before the outage is to occur. Notice shall be deemed valid if the following actions have been taken:
 1. Users of the system are sent notifications, via email or a proprietary system, time stamped at least 24 hours prior to the outage;
 2. The TISFORUM mailing list is sent Email notification time stamped at least 24 hours prior to the outage;
 3. The OASIS TSIN mailing list is sent email notification time stamped at least 24 hours prior to the outage.

Any system problem that creates behavior contrary to that described in the e-Tag specification shall constitute an "unscheduled outage." For example, a system that begins rejecting every third message it receives due to a component failure in a cluster would constitute an unscheduled outage (although the system was only failing one third of the time, it was not performing as described in the e-Tag specification).

Interchange Authority services may not be in a state of scheduled or unscheduled outage for more than 0.5% of the time for the month, based on outage time (in minutes) for the month divided by total time in the month (in minutes). Specific allowed outages may be granted to address special circumstances (i.e., scheduled specification changes, major internet outages,

etc...). These specific allowed outages, if granted, may require public posting for all customers to view.

While it is acceptable for an entity to contract with a third-party to provide for these requirements, it should be understood that the entity required to employ the Interchange Authority service is ultimately responsible for the provision of the service. The non-performance of a third party does not excuse the entity from the obligation to provide the service.

To monitor compliance with these requirements, the Operator of an Interchange Authority system may be required to submit, at the beginning of each month, a report describing outage activity for the previous month. This report shall consist of the following items:

1. The beginning of the outage;
2. The ending of the outage;
3. The type of outage (Scheduled or Unscheduled);
4. The nature of the outage (Maintenance, System Crash, etc...);
5. In the event of an Unscheduled Outage, the cause of the outage and the steps taken to ensure the problem has been addressed and will not reoccur.

The report format may be in a standardized electronic form. These documents may be evaluated and held in confidence. Statistics may be developed from these reports identifying system outage durations for each month. These preliminary findings will be held in confidence until they are confirmed. These performance percentages shall be posted and electronically accessible once confirmed, at the end of the month following the month evaluated.

Entities experiencing difficulty due to an unnoticed scheduled or unscheduled outage may send a Request for Investigation. This request should specify the estimated time the outage occurred, the estimated time the outage ended, and document evidence of the outage (such as TMP logs, email messages, etc...). Claims may be investigated with the appropriate Tag Authority Service Operator. Should a Tag Authority Service Operator be unable to refute the claim, and the Investigation Requestor appears to have provided an accurate representation of an undocumented outage, calculated outage percentages may be modified to include the undocumented incident.

B. Failure Procedures

Backup procedures are needed because, in a communication system that operates on the public Internet, failures are certain to occur. The failures may be caused as a result of overload of the network, loss of connection to an Internet service provider, corruption of one or more servers by computer hackers, failure of one or more entity's Internet servers, internal firewall failure, and many other reasons.

Failures also have a wide variety of scopes. A failure may affect a single entity with a small number of schedules while all of its neighbors continue to operate normally, a small number of utilities in a local area, or a regional RTO with thousands of active schedules. However failures occur, the operation of the electric utility grid must continue. This document describes the manner in which operations are to be coordinated should such a failure become a reality.

Assumptions

A general assumption is that each operational entity in the electric utility industry has an internal energy management system, marketing system, or contract system that will not be affected by the Internet communication failure.

Participating Entities

Requesting PSE- The entity that prepares and submits an RFI, normally a Purchasing Selling Entity.

Path Participant – Any of the entities that are part of an Interchange transaction.

Interchange Authority Service Entity – The entity that provides the Interchange Authority service for an e-Tag. The Interchange Authority service itself is typically a computer system that maintains the master database for the tag and communicates status with other computer systems. The Interchange Authority Service Entity is the utility industry entity that is responsible for providing the service. In e-Tag 1.7.097, this entity is the Sink Balancing Authority.

Approval Entity – An entity that has approval rights for Arranged Interchange; this includes the Transmission Service Providers (TSP), scheduling Balancing Authorities (BA), Generator-Providing Entity (GPE) and the Load-Serving Entity (LSE) involved in the Arranged Interchange

Checkout Partners – The entities that perform the checkout process. Most commonly two adjacent Balancing Authorities checking net interchange. It might also be two marketers checking sales and purchases, or a transmission customer checking schedules with a transmission provider.

Failure Actions

When a failure occurs an entity will soon realize that it has lost communications with the other servers in the electronic tagging arena. Yet it must still communicate current energy flows across the transmission network and expected flows for the next few hours. Transmission curtailments must be accounted for in the sense that a required reduction in energy flows or increase in generation needs to be communicated. However, accounting issues will take a secondary priority to reliability issues in this exchange, and detail relating back to tags, schedules, and transmission reservations can be reconstructed later.

The table below lists typical failures that might occur and the emergency actions that the entity will take to compensate for that failure.

Entity	Connectivity Problem	Backup actions
Requesting PSE	Unable to submit tag to Interchange Authority Service.	Ask another entity in the transaction chain to submit the schedule for you. That entity then becomes the author. For Interconnections, excluding the WECC, create a backup paper copy of the schedule and fax to authority service entity and all approval entities in the transaction. For the WECC, the only acceptable mechanism for creating an Request For Interchange is creation of a new e-Tag Request.
Path Participant	Not receiving update messages.	Use Recovery Process to resynchronize from authority service. Use telephone with Authority Service Entity to update status.
Interchange Authority Service Entity	Unable to send messages to generation or load Balancing Authorities.	Telephone schedule author to notify of the message failure. The author will fax the schedule to the Approval Entity for these control areas. Telephone Approval Entity to notify of the message failure. Approve or deny the schedule at the request of the Approval Entity (override).
Interchange Authority Service Entity	Unable to send messages to an Approval Entity for an intermediate Transmission Provider or Balancing Area.	Telephone schedule author to notify of the message failure. The author will fax the schedule to the Approval Entity. Telephone Approval Entity to notify of the message failure. Approve the schedule automatically. Deny the schedule at the request of the Approval Entity (override).
Interchange Authority Service Entity	Unable to send messages to an information only entity.	No Action required.
Interchange Authority Service Entity	Unable to receive messages.	Broadcast a message by email or fax to all entities that use your authority service. The message should forecast a recovery time for your service. In the meantime, your Interchange Authority Service is down.

Entity	Connectivity Problem	Backup actions
Approval Entity	Unable to receive messages from an authority service. (The Authority has an obligation to notify you and the authoring PSE. The Authoring PSE has an obligation to fax the tag to the approver.)	Use the Recovery Process to resynchronize from Authority Services or Central Repository. Telephone the Authority Service entity with the approval or denial of the schedule.
Approval Entity	Unable to send messages to an authority service.	Telephone the Interchange Authority Service Entity with approval or denial of the schedule.
Checkout Partner	Unable to exchange messages.	Telephone net exchange to the checkout partner. Create a backup paper copy of the checkout data and fax to the checkout partner.

Notes:

1. The first action in every case is to attempt to establish connection by using an alternate communication method, a second Internet service provider, dial up connection, or a private network if one is available.
2. Next, the backup actions are attempted in the order specified.
3. The backup actions include printing paper reports from the internal energy management system. The reports include a schedule detail report for a short time period, net exchange between two operational entities, and transmission reservation usage between a transmission provider and a customer.
4. Every backup action list ends with a fax or telephone call that is completely independent of the public Internet.

Reports

Three reports have been designed to communicate energy flows and transmission reservation usage between partner entities with a tie where possible back to the schedules as known before the communication failure.

Net Exchange

A Net Exchange report is a paper summary of Interchange:

- The time span of the report will cover a period of the current hour to a few hours in the future, up to 24 hours.
- The entity and the partner entity are any two entities that share common schedules.

- The date and time are the date and time of the report.
- Net schedules are the net of schedules from and to the other entity.
- TO is a sum of the schedules from the entity to the partner entity.
- FROM is a sum of the schedules from the partner entity to the entity.
- Tag or fragment lines represent the data from each tag or fragment that was known at the time of the failure or has been entered later.
- Recent adjustment lines represent a summary of changes to the schedules that occurred since the failure.

Schedule Detail

A Schedule Detail report is a paper copy of an individual schedule. It includes:

- The schedule identification number and most current active revision number.
- The fully expanded energy schedule for a period of the current hour to a few hours in the future, up to 24 hours.
- The complete path with all OASIS and contract references.

Reservation Usage

A transmission Reservation Usage report is a summary of Reservation Usage:

- The time span of the report will cover a period of the current hour to a few hours in the future, up to 24 hours.
- The entities on the report are a transmission provider and a transmission contract holder.
- Gross reservations is the sum of reservations. Usage is the sum of usage.
- The detail lines are tag or fragment usage of reservation, organized by product and OASIS reservation number.

Recovery Process

The last backup issue is the recovery of current status when the communication link is reestablished. The recovery is accomplished by a query request to the Interchange Authority service for each entity that the entity does business with. The query returns a list of all the schedules that reference that entity with the schedule ID, the current version number and the last modified date and time.

The recovering entity then compares with its own database and updates his database to be current with the Interchange Authority's database. When all Interchange Authority services have been queried, the recovery is complete.

If the entity desires, it can request a complete audit history of each schedule.

004-B Appendix B

Transaction e-Tag Actions

For Eastern and Western Interconnections

The table below explains the various e-Tag actions that are possible, and the entities that are entitled to initiate these actions:

Desired Policy Action	Reason	Tagging Action	Initiated by	Result
Approve a Tag Request	Economic, Reliability, or Contractual	Set Status (to Approved)	Approval Entity*	Approver indicates approval
Deny a Tag Request	Economic, Reliability, or Contractual	Set Status (to Denied)	Approval Entity*	Approval indicates denial
Study a Tag Request	Economic, Reliability, or Contractual	Set Status (to Studied)	Approval Entity*	Approval indicates the tag has been viewed, but have not committed to a decision
Withdraw a Tag Request	Economic	Withdraw Request prior to request implementation	Requesting PSE**	Request is dead
Cancel a New Tag	Economic	Request Profile Change – Set Energy and Capacity for the transaction to zero prior to transaction start	Requesting PSE**	Tag is dead
Terminate a Tag	Economic	Request Profile Change – Set Energy and capacity of the transaction to zero from a point of time forward	Requesting PSE**	Portion of tag is dead
Extend an e-Tag	Economic	Request Profile Change – Append additional hours onto an existing transaction	Requesting PSE**	Tag is extended
Reduce an e-Tag	Economic	Request Profile Change – Decrease Energy flow or Committed Transmission Reservation(s) for a transaction for a	Requesting PSE**, Market Operator***	Profile is Decreased

Desired Policy Action	Reason	Tagging Action	Initiated by	Result
		specific set of hours		
Increase an e-Tag	Economic	Request Profile Change – Increase Energy flow or Committed Transmission Reservation(s) for a transaction for a specific set of hours	Requesting PSE**, Market Operator***	Profile is Increased
Curtail an e-Tag	Reliability (SOL Violation, Loss of Gen, loss of Load)	Request Profile Change – Limit Energy flow for a transaction for a specific set of hours	Source BA, Sink BA, Transmission Service Provider, Reliability Coordinator	Profile is Decreased
Reload an e-Tag	SOL Violation eliminated, Generator Returned, Load Returned	Request Profile Change – Release Limit of Energy flow for a transaction for a specific set of hours	Source BA, Sink BA, Transmission Service Provider, Reliability Coordinator	Profile is Increased

Notes:

*Purchasing-Selling Entities and Load-Serving Entities may elect to defer their approval rights to the Host Balancing Authority of their facilities. For more information, see PSE and LSE approval rights below

**In some situations, Balancing Authorities implement certain Interchange Transactions or Interchange Schedules, such as bilateral inadvertent payback, Dynamic Schedules, and emergency schedules from Reserve Sharing Groups. In these situations, the Balancing Authority serves as the Purchasing-Selling Entity and can perform these actions.

***Entities registered as market operators and serving as either source or sink for a Transaction may exercise such functions in order to indicate correct flow based on market clearing.

PSE and LSE Approval Rights

Purchasing-Selling Entities providing generation (GPE) and Load-Serving Entities (LSE) have been granted the right, but not the obligation, to approve Transaction requests using their resources. Only GPE’s who are capable of controlling the output of the source generator should be allowed approval rights. If PSEs and LSEs specify an approval service in the Master Registry, then they are expected to approve/deny Transactions when so requested. Otherwise, their Host Balancing Authority is expected to act on their behalf. .The following table illustrates the proper way to interpret this requirement:

If the PSE...	Specified an Approval URL	The PSE should be granted rights to approve or deny
	Did not specify an Approval URL	The BA should have proxy approval rights for the PSE



004-C Appendix C

Required and Correctable e-Tag Data

A. New Interchange Transactions

A new Interchange transaction is an Arranged Interchange (e-Tag) that has not yet been approved or confirmed for implementation. Such Arranged Interchange must be presented to those Approval Entities (as e-Tag) that are responsible for the implementation of the Interchange transaction in order that they may evaluate the e-Tag and determine whether or not the Interchange can be implemented. The following information is to be used to describe such an Interchange transaction.

“Correctable” as used below indicates a field that may be modified by the RFI author prior to a RFI reaching a composite state of CONFIRMED. The lack of this term below indicates that the field is not correctable. “Required” as used below indicates a field must be populated with data in order for the RFI to be considered valid. The lack of this term indicates that the field is not required.

1. Market Information

1.1. RESERVED

1.2. Financial Path (Required) – the description of financially responsible parties for the Interchange in order. This will typically start with a Purchasing-Selling Entity providing generation (GPE) and finish with a Load Serving Entity (LSE), and where applicable, intermediate Purchasing-Selling Entities between the two.

1.2.1. Energy Title Holder(s) (Required) – the identity of the entities financially responsible to take and/or deliver the energy as described in the physical path. This will typically be a Purchasing-Selling Entity providing generation (GPE), a Load Serving Entity (LSE), and where applicable, Intermediate Purchasing-Selling Entities.

1.2.1.1. Energy Product Type (Required) (Correctable) – the type of energy delivered by the Energy Title Holder.

1.2.1.2. Contract Number(s) (Correctable) – reference to a Transaction entered into by the Energy Title Holder with one or more other participants in the Transaction.

1.2.1.3. Miscellaneous Information (Correctable) – information provided at the Requesting PSE’s option regarding the Transaction.

2. Physical Information

2.1. Physical Path (Required) – the description of physically scheduling parties for the Interchange in order and related to the financially responsible parties described above. This will always contain a Generation segment, at least one Transmission segment, and a Load segment.

2.1.1. Generation (Required) – set of data describing the physical and contractual characteristics of the energy source.

- 2.1.1.1.** Source (Required) – the physical point at which the energy is being generated. This may vary in granularity, dependent on local business practices.
- 2.1.1.2.** Contract Number(s) (Correctable) – reference to a schedule or agreement entered into by the Purchasing-Selling Entity providing generation (GPE) and the Generator Operator.
- 2.1.1.3.** Miscellaneous Information (Correctable) – information provided at the Requesting PSE's option regarding the Interchange Transaction.
- 2.1.1.4.** Energy Profile (Required) – energy to be produced by the Generator Operator for this Transaction.
- 2.1.2.** Transmission (Required) – set of data describing the physical and contractual characteristics of a wheel (import, export, through, etc.).
 - 2.1.2.1.** Transmission Service Provider (Required) – the identity of the transmission provider that is wheeling the energy.
 - 2.1.2.2.** Point of Receipt (Required) (Correctable) – valid Point of Receipt for scheduled Transmission Reservation.
 - 2.1.2.3.** Point of Delivery (Required) (Correctable) – valid Point of Delivery for scheduled Transmission Reservation.
 - 2.1.2.4.** Scheduling Entities (Correctable) – entity that is physically scheduling interchange on behalf of the Transmission Service Provider in order to provide wheeling services. Typically this is the Balancing Authority for the Transmission Service Provider, but may be several Balancing Authorities supporting a regional transmission service. If the Scheduling Entity code for the physical segment is not identical to the Transmission Service Provider (TSP) code on that physical segment, the Scheduling Entity code must be explicitly specified or required. This field is required for the Western Interconnect.
 - 2.1.2.5.** Loss Provision Information (Required) (Correctable)– Information describing the manner in which losses are accounted when they are not scheduled as in-kind megawatt distributions through the original transaction. Types may be financial (paid in dollars based on tariff provisions), internal (scheduled in megawatts to the Transmission Service Provider from a resource inside the Transmission Service Provider's area), or external (scheduled in megawatts to the Transmission Service Provider from a resource outside the Transmission Provider's area). If internal or external, must specify contract numbers or Transaction IDs.
 - 2.1.2.6.** Miscellaneous Information (Correctable) – information provided at the Requesting PSE's option regarding the transaction.
 - 2.1.2.7.** POR and POD Profiles (Required) – schedule of Energy Flow imported at the Point of Receipt and exported at the Point of Delivery.

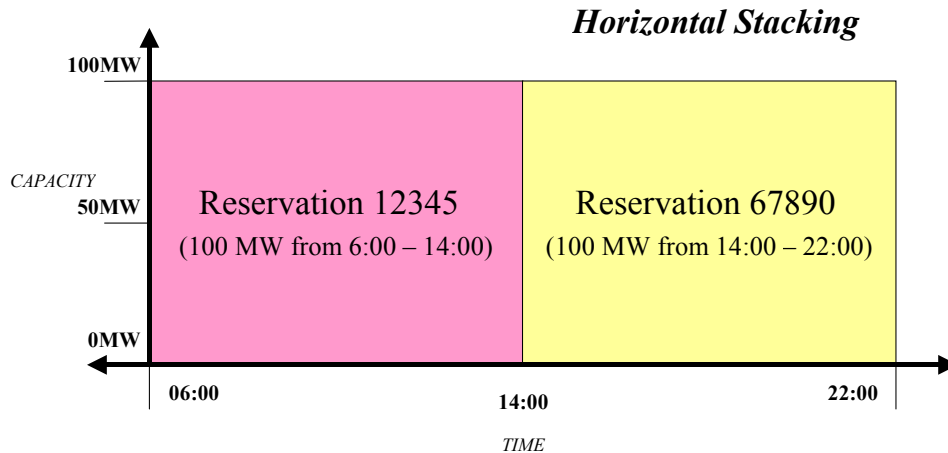
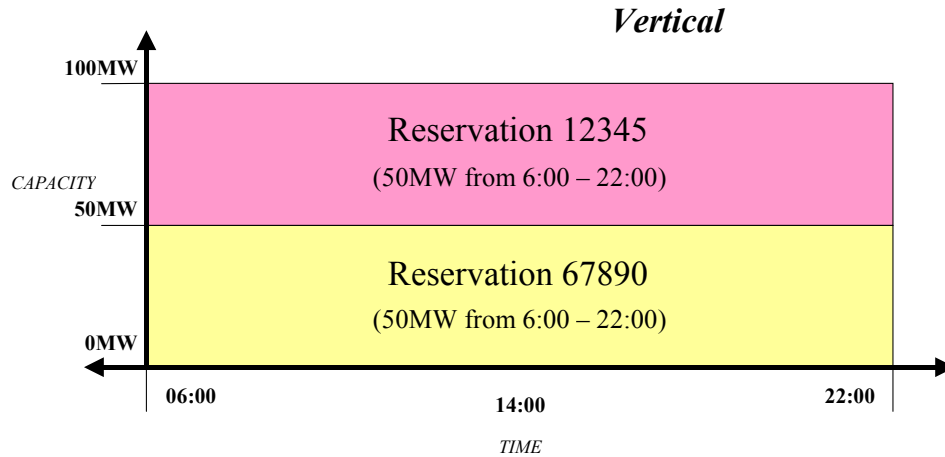
- 2.1.2.8.** Transmission Reservation Number(s) (Required) (Correctable) – reference to a particular transmission reservation being used to provide transmission capacity to support the transaction being described.
- 2.1.2.9.** Transmission Product (Required) (Correctable) – Specifies the firmness of service associated with the transmission reservation being used.
- 2.1.2.10.** Requesting PSE (Required) (Correctable) – identifies the entity that purchased and holds the transmission reservation being presented for use.
- 2.1.2.11.** Transmission Allocation Profile (Required) – profile of transmission reservation allocated by the Requesting Purchasing-Selling Entity for use for this Transaction.
- 2.1.3.** Load (Required) – set of data describing the physical and contractual characteristics of the energy sink.
 - 2.1.3.1.** Sink (Required) – the physical point at which the energy is being consumed. This may vary in granularity, dependent on local business practices.
 - 2.1.3.2.** Contract Number(s) (Correctable) – reference to a schedule or agreement entered into by the Load Serving Entity and the distribution provider.
 - 2.1.3.3.** Miscellaneous Information (Correctable) – information provided at the requesting PSE's option regarding the Transaction.
 - 2.1.3.4.** Energy Profile (Required) – energy to be consumed by the load for this Transaction.

Using Multiple Transmission Reservations to Support a Single Leg of an Interchange Transaction

The use of multiple transmission reservations to support a single leg of an Interchange Transaction is known as transmission stacking. There are two types of transmission stacking:

- Vertical stacking, in which a Requesting Purchasing-Selling Entity combines multiple reservations to achieve a certain net level of transmission capacity, and
- Horizontal stacking, in which a Requesting Purchasing-Selling Entity combines multiple reservations to achieve a certain transmission capacity coverage over time.

The following diagrams illustrate these concepts more fully. In both cases, the assumed need is 100 MW of transmission capacity for hours 06:00 through 22:00.



Should a Requesting PSE elect to utilize stacking, including any combination of the two stacking types, to support their INTERCHANGE TRANSACTION, they must understand the following requirements:

- Stacks **MUST** be described through fully qualified profiles for each reservation being used.
- At no point may the coverage described by the stack be less than the transmission capacity needed for the TRANSACTION'S energy flow.

B. Curtailments and Reloads (Reliability Related Profile Modifications)

Curtailments and Reloads are special kinds of modifications to an Interchange transaction's energy profile based on reliability concerns. Such modifications must be presented to those entities that are responsible for the implementation of the modification in order that they may evaluate the transaction request and determine whether or not the modification can be implemented. The following information must be used to describe such a modification.

- The TRANSACTION being curtailed or reloaded,
- All necessary profile changes to set the maximum flow allowed for the transaction during the appropriate hours,
- A contact person that initiated the curtailment or reload, and
- A description of the necessity for the schedule change.

C. Market-Related Profile Modifications

Profile Modifications are changes to an Interchange TRANSACTION'S energy profile based on market desires. Such modifications must be presented to those entities that are responsible for the implementation of the modification in order that they may evaluate the Interchange TRANSACTION request and determine whether or not the modification can be implemented. The following information must be used to describe such a modification.

- The Interchange TRANSACTION being modified,
- All necessary profile changes to set the transmission capacity or energy flow to the desired levels during the appropriate hours, and
- A contact person that initiated the modification.

004-D Appendix D

Commercial Timing Table

Timing Table

Interchange Timeline with Minimum Reliability-Related Response Times

	A	B	C	D	
If Actual Arranged Interchange (RFI) is Submitted	IA Makes Initial Distribution of Arranged Interchange	GPE, LSE, and PSE¹ Conduct Market Assessments² IA Verifies Reliability Data Complete	IA Compiles and Distributes Status	BA Prepares Confirmed Interchange for Implementation	Minimum Total Reliability Period (Columns A through D)
≤ 1 hour prior to ramp start	≤ 1 minute from RFI submission	≤ 10 minutes from Arranged Interchange receipt from IA for all Interconnections except WECC	≤ 1 minute from receipt of all Reliability Assessments	≥ 3 minutes prior to ramp start	<i>15 minutes</i>
≤ 20 minutes prior to ramp start	≤ 1 minute from RFI submission	≤ 5 minutes from Arranged Interchange receipt from IA for WECC	≤ 1 minute from receipt of all Reliability Assessments	≥ 3 minutes prior to ramp start	<i>10 minutes</i>
> 20 minutes to ≤ 1 hour prior to ramp start	≤ 1 minute from RFI submission	≤ 10 minutes from Arranged Interchange receipt from IA for WECC	≤ 1 minute from receipt of all Reliability Assessments	≥ 3 minutes prior to ramp start	<i>15 minutes</i>

1 This PSE reference applies to PSE's whose transmission rights are cited on Arranged Interchange.

2 These Market Assessments take place in concurrence with NERC Reliability Assessments (as found in NERC INT-005-1).

	A	B	C	D	
If Actual Arranged Interchange (RFI) is Submitted	IA Makes Initial Distribution of Arranged Interchange	GPE, LSE, and PSE¹ Conduct Market Assessments² IA Verifies Reliability Data Complete	IA Compiles and Distributes Status	BA Prepares Confirmed Interchange for Implementation	Minimum Total Reliability Period (Columns A through D)
>1 hour to < 4 hours prior to ramp start	≤ 1 minute from RFI submission	≤ 20 minutes from Arranged Interchange receipt from IA	≤ 1 minute from receipt of all Reliability Assessments	≥ 39 minutes prior to ramp start	<i>1 hour plus 1 minute</i>
≥ 4 hours prior to ramp start	≤ 1 minute from RFI submission	≤ 2 hours from Arranged Interchange receipt from IA	≤ 1 minute from receipt of all Reliability Assessments	≥ 1 hour 58 minutes prior to ramp start	<i>4 hours</i>

Area Control Error (ACE) Equation Special Cases

Purpose

It is the obligation of each Balancing Authority to manage its Area Control Error in accordance with NERC reliability standards. This Standard provides additional requirements of Jointly Owned Units, Supplemental Regulation Service and Load or Generation Transfer by Telemetry for the ACE equation.

Applicability

Balancing Authorities

Definition of Terms

- 005-0.1** **Area Control Error (ACE)** - The instantaneous difference between net actual and scheduled interchange, taking into account the effects of frequency bias including a correction for meter error.
- 005-0.2** **Balancing Authority (BA)** – The entity responsible for integrating resource plans ahead of time, for maintaining load-interchange-generation balance within a Balancing Authority Area, and for supporting Interconnection frequency in real time.
- 005-0.3** **Balancing Authority Area (BAA)** - An electrical system bounded by interconnection (tie-line) metering and telemetry, where the Balancing Authority controls (either directly or by contract) generation to maintain its Interchange Schedule with other Balancing Authority Areas and contributes to frequency regulation of the Interconnection.
- 005-0.4** **Dynamic Schedule** - A telemetered reading or value that is updated in real time and used as a schedule in the ACE equation and the integrated value of which is treated as a schedule for interchange accounting purposes. Commonly used for “scheduling” jointly owned generation to or from another Balancing Authority Area.
- 005-0.5** **Interchange Schedule** - The planned energy exchange between two adjacent Balancing Authorities.
- 005-0.6** **Interconnection** – Any one of the three major electric system networks in North America: Eastern, Western, and ERCOT.
- 005-0.7** **Jointly Owned Units (JOU[s])** - This term refers to a unit in which two or more entities share ownership.
- 005-0.8** **Net Actual Interchange (NI_a)** - The algebraic sum of all metered interchange over all interconnections between two physically adjacent Balancing Authority Areas.

005-0.9 **Net Interchange Schedule (NI_s)** - The algebraic sum of all Interchange Schedules with each adjacent Balancing Authority Area.

005-0.10 **Pseudo-Tie** - A telemetered reading or value that is updated in real time and used as a tie line flow in the ACE equation but for which no physical tie or energy metering actually exists. The integrated value is used as a metered MWh value for interchange accounting purposes.

005-0.11 **Supplemental Regulation Service** - A method of providing regulation service in which the Balancing Authority providing the regulation service receives a signal representing all or a portion of the other Balancing Authority's ACE.

Business Practice Requirements

005-1 **JOINTLY OWNED UNITS**

Jointly Owned Units (JOUs) should be accounted for properly by all owners in the Area Control Error Equation.

005-1.1 ACE equation for each Balancing Authority should reflect its ownership of the JOUs both internal and external to its Balancing Authority area.

005-1.2 If fixed Schedules are not used, JOUs may be handled as a Pseudo-Tie or a Dynamic Schedule.

005-1.2.1 **Pseudo-Ties**

If the JOUs are considered Pseudo-Ties then the NI_s remains Net Interchange Schedule and the NI_a term should become NI_a - I_{AJOUe} - I_{AJOUi} where:

NI_a = Net Actual Interchange.

I_{AJOUe} = Pseudo-Tie for JOU external to a Balancing Authority.

I_{AJOUe} is assumed negative for external generation coming into the Balancing Authority as a Pseudo-Tie.

I_{AJOUi} = Pseudo-Tie for JOU internal to a Balancing Authority.

Incoming power is negative.

Outgoing power is positive.

005-1.2.2 **Dynamic Schedule**

If the JOU is reflected as a Dynamic Schedule, the NI_a remains actual tie flows and the NI_s should become NI_s + I_{SJOUe} + I_{SJOUi}.

NI_s = Net Interchange Schedule.

I_{SJOUe} = Dynamic Schedule for the JOU external to a Balancing Authority Area.

$I_{S_{JOU E}}$ is assumed negative for external generation coming into the Balancing Authority as a Dynamic Schedule.

$I_{S_{JOU I}}$ = Dynamic Schedule for the JOU internal to a Balancing Authority.

Incoming power is negative.
Outgoing power is positive.

Appendix A of this Business Practice Standard illustrates how JOUs can be accounted for in the ACE equation either as a Pseudo-Tie or as a Dynamic Schedule.

005-2 SUPPLEMENTAL REGULATION SERVICE

Supplemental Regulation Service is required when one Balancing Authority takes over all or part of the regulation requirements of another Balancing Authority without incorporating its ties and schedules. In this case, both Balancing Authorities shall handle this in a consistent manner as a Dynamic Schedule

005-2.1 Both Balancing Authorities shall add another component, I_{SC} (term for Supplemental Regulation Service Component) to both Balancing Authorities' ACE with the proper sign convention.

005-2.1.1 Assume Balancing Authority X is purchasing regulation service from Balancing Authority Y.

005-2.1.1.1 For Balancing Authority X, I_{SC} shall be subtracted from Balancing Authority X's ACE for over-generation and added for under-generation.

005-2.1.1.2 For Balancing Authority Y, I_{SC} shall be added to Balancing Authority Y's ACE for X's over-generation and subtracted for X's under-generation.

005-3 LOAD OR GENERATION TRANSFER BY TELEMTRY

Dynamic scheduling may also be used for telemetered transfer of load or generation from one Balancing Authority to another.

005-3.1 If dynamic scheduling is used to transfer load or generation by telemetry, both Balancing Authorities shall modify their ACE equation as applicable.

005-3.1.1 To transfer load, the Balancing Authority giving up the transferred load shall add the load I_{SL} (term for transferred load) to its ACE equation.

005-3.1.2 The Balancing Authority accepting the load shall subtract I_{SL} the transferred load from its ACE equation.

005-3.1.3 For generation, the Balancing Authority giving up generation shall subtract I_{SG} (term for transferred generation) and the Balancing Authority accepting the generation shall add I_{SG} to its ACE equation.



005-A Appendix A**Examples of Accounting of Jointly Owned Units as Pseudo-Tie or Dynamic Schedule**

The following examples illustrate the methodology of accounting JOUs as Pseudo-Tie or Dynamic Schedule.

Balancing Authority X and Balancing Authority Y each have a unit in their Balancing Authority Area jointly owned by both Balancing Authorities. Unit 1 is in Balancing Authority X and unit 2 is in Balancing Authority Y. The ACE equation for Balancing Authority X should reflect its ownership of both units. Two components are required: one to reflect X's ownership in unit 2 and one to reflect Y's ownership of unit 1. Balancing Authority Y's ACE equation should likewise have two components, one for its ownership in unit 1 and one for X's ownership of unit 2.

Assume Unit 1 in Balancing Authority X is generating 400 MW.

100 MW owned by X

300 MW owned by Y

Assume Unit 2 in Balancing Authority Y is generating 300 MW.

50 MW owned by X

250 MW owned by Y

Pseudo-Tie

Representing the units as a Pseudo-Tie the equations become:

For Balancing Authority X: $NI_A = NI_a - (-50) - 300$

For Balancing Authority Y: $NI_A = NI_a - (-300) - 50$

Dynamic Schedule

Representing the unit as a Dynamic Schedule the equations become:

For Balancing Authority X: $NI_S = NI_s - 50 + 300$

For Balancing Authority Y: $NI_S = NI_s - 300 + 50$

Manual Time Error Correction

Purpose

Interconnection frequency is normally scheduled at 60.00 Hz and controlled to that value. The control is imperfect and over time the frequency will average slightly above or below 60.00 Hz resulting in mechanical electric clocks developing an error relative to true time. This Standard specifies the procedure to be used for reducing the error to within acceptable limits of true time.

Applicability

Balancing Authorities, Interconnection Time Monitor

Definition of Terms

- 006-0.1** **Balancing Authority (BA)** – The entity responsible for integrating resource plans ahead of time, maintaining load-interchange-generation balance within a Balancing Authority Area, and supporting Interconnection frequency in real time.
- 006-0.2** **Balancing Authority Area (BAA)** - An electrical system bounded by interconnection (tie-line) metering and telemetry, where the Balancing Authority controls (either directly or by contract) generation to maintain its Interchange Schedule with other Balancing Authority Areas and contributes to frequency regulation of the Interconnection.
- 006-0.3** **Frequency Bias Setting** - A value, in MW/0.1 Hz, set into a Balancing Authority's AGC equipment to represent a Balancing Authority's response to a frequency deviation.
- 006-0.4** **Interchange Schedule** - The planned energy exchange between two adjacent Balancing Authorities.
- 006-0.5** **Interconnection** – Any one of the three major electric system networks in North America: Eastern, Western, and ERCOT.
- 006-0.6** **Interconnection Time Monitor** – An entity that monitors Time Error and initiates and terminates Time Error Corrections.
- 006-0.7** **Leap Second** - A Leap Second is a second of time added to Coordinated Universal Time to make it agree with astronomical time to within 0.9 seconds. Historically, Leap Seconds are implemented as needed on June 30th or December 31st. (National Institute of Standards and Technology)
- 006-0.8** **Time Error** – Accumulated time difference between time based on Interconnection frequency and the National Bureau of Standards time.
- 006-0.9** **Time Error Correction** - An offset to the Interconnection's scheduled frequency to correct for accumulated Time Error.

006-7 TIME CORRECTION OFFSET

Each Balancing Authority, when requested, shall participate in a Time Error Correction by one of the following two methods:

006-7.1 FREQUENCY OFFSET

The Balancing Authority may offset its frequency schedule in accordance to the directives of the Interconnection Time Monitor, leaving the Frequency Bias Setting normal,

006-7.2 SCHEDULE OFFSET

If the frequency schedule cannot be offset as directed by the Interconnection Time Monitor, the Balancing Authority may offset its net Interchange Schedule (MW) by an amount equal to the computed bias contribution during an equivalent frequency deviation`.

006-8 INTERCONNECTION TIME ERROR NOTIFICATION

On the first day of each month, the Interconnection Time Monitor shall issue a notification of time error accurate to within 0.01 second to all Reliability Coordinators within the Interconnection to assure uniform calibration of time standards.

006-9 WESTERN INTERCONNECTION TIME ERROR NOTIFICATION

Within the Western Interconnection, the Interconnection Time Monitor shall provide the accumulated time error (accurate to within 0.001 second) to all Balancing Authorities on a daily basis at 1400 PDT/PST using the WECCNet. The alphabetic designator shall accompany time error notification if a time error correction is in progress.

006-10 After the premature termination of a manual time correction, a slow time correction can be reinstated after the frequency has returned to 60.00 Hz or above for a period of ten minutes. A fast time correction can be reinitiated after the frequency has returned to 60.00 Hz or lower for a period of ten minutes. At least one hour shall elapse between the termination and re-initiation notices.

006-11 TIME CORRECTION ON RECONNECTION

When one or more Balancing Authorities have been separated from the Interconnection, upon reconnection, they shall adjust their time error devices to coincide with the time error of the Interconnection Time Monitor. The Balancing Authorities shall notify the Interconnection Time Monitor they are ready to receive the necessary adjustment to time error as soon as possible after reconnection.

006-12 **LEAP SECONDS**

Balancing Authorities using time error devices that are not capable of automatically adjusting for Leap Seconds shall arrange to receive advance notice of the Leap Second and make the necessary manual adjustment in a manner that will not introduce an improper Interchange Schedule into their control system.



Inadvertent Interchange Payback

Purpose

This standard defines the method (s) in which Inadvertent Energy is paid back.

Applicability

Balancing Authorities

Definition of Terms

- 007-0.1** **Area Control Error (ACE)** - The instantaneous difference between net actual and scheduled interchange, taking into account the effects of frequency bias, including a correction for meter error.
- 007-0.2** **Balancing Authority (BA)** - The entity responsible for integrating resource plans ahead of time, maintaining load-interchange-generation balance within a Balancing Authority Area, and supporting Interconnection frequency in real time.
- 007-0.3** **Balancing Authority Area (BAA)** - An electrical system bounded by interconnection (tie-line) metering and telemetry, where the Balancing Authority controls (either directly or by contract) generation to maintain its Interchange Schedule with other Balancing Authority Areas and contributes to frequency regulation of the Interconnection.
- 007-0.4** **CPS** – Control Performance Standard as defined by NERC
- 007-0.5** **Inadvertent Interchange** - The difference between a Balancing Authority's net actual interchange and net scheduled interchange.
- 007-0.6** **Interchange Schedule** - The planned energy exchange between two adjacent Balancing Authorities.
- 007-0.7** **Interconnection** – Any one of the three major electric system networks in North America: Eastern, Western, and ERCOT.
- 007-0.8** **L₁₀** – A control error limitation specified in NERC standards.
- 007-0.9** **Regions** - One of the North American Electric Reliability Corporation regional councils or affiliate.
- 007-0.10** **Transmission Service Provider (TSP)** - The entity that administers the transmission tariff and provides transmission services to qualified market participants under applicable transmission service agreements

Business Practice Requirements

007-1 INADVERTENT INTERCHANGE PAYBACK

Each Balancing Authority shall be diligent in reducing Inadvertent Interchange accumulations. Balancing Authorities shall payback Inadvertent Interchange accumulations by one of the following methods:

007-1.1 ENERGY “IN-KIND” PAYBACK

Inadvertent Interchange accumulated during “On-Peak” hours shall only be paid back during “On-Peak” hours. Inadvertent Interchange accumulated during “Off-Peak” hours shall only be paid back during “Off-Peak” hours. [See Appendix A, “On-Peak and Off-Peak Periods.”]

007-1.1.1 Bilateral payback

Inadvertent Interchange accumulations may be paid back via an Interchange Schedule with another Balancing Authority.

007-1.1.1.1 Opposite balances

The source Balancing Authority Area and sink Balancing Authority Area must have Inadvertent Interchange accumulations in the opposite direction.

007-1.1.1.2 Payback terms

The terms of the Inadvertent Interchange payback shall be agreed upon by all involved Balancing Authorities and Transmission Service Providers.

007-1.1.2 Unilateral payback

Inadvertent Interchange accumulations may be paid back unilaterally controlling to a target of non-zero ACE. Controlling to a non-zero ACE ensures that the unilateral payback is accounted for in the CPS calculations. The unilateral payback control offset is limited to Balancing Authority’s L₁₀ limit and shall not burden the Interconnection.

007-2 OTHER PAYBACK METHODS

Upon agreement by all Regions within an Interconnection, other methods of Inadvertent Interchange payback may be utilized.

007-A Appendix A

Inadvertent Interchange On- and Off-Peak Periods

1. On-Peak and Off-Peak Hours (Monday Through Sunday)

On- and Off-Peak designation

The hourly inadvertent energy created by a Balancing Authority is classified as either On-Peak or Off-Peak inadvertent. The peak designation assigned is a function of hour of day, day of week, time zone, prevailing time (standard or daylight savings), and special holiday status.

Daylight Saving Time

The On-Peak to Off-Peak and Off-Peak to On-Peak boundary hours are unaffected by transitions to or from daylight savings time. If a Balancing Authority remains on either standard or daylight savings time throughout the year, their inadvertent accounting practices shall use prevailing time.

On-peak hours

Each Interconnection has a reference time zone and standardized On-Peak and Off-Peak periods. On-Peak periods are summarized in the table below for each Interconnection. Sundays and special holidays are designated to be Off-Peak periods for the entire day. Hours for Monday through Saturday that are not shown in the table below are also designated as Off-Peak hours.

2. On-Peak Hours For Monday Through Saturday In Hour-Ending Format

<i>Interconnection</i>	<i>Reference Time Zone</i>	<i>Hour Ending</i>	
		<i>From</i>	<i>To</i>
Eastern	Central	0700	2200
Western	Pacific	0700	2200

3. Off-Peak Holidays for the Eastern and Western Interconnections

There are six identified U.S. holidays each year:

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

If any of these holidays fall on a Sunday, the following Monday will be considered an Off-Peak day. Otherwise, the Off-Peak day will be the holiday itself.



Transmission Loading Relief – Eastern Interconnection

Purpose

This business practice standard defines the requirements necessary to complement transmission loading relief procedures needed for curtailment and reloading of Interchange Transactions to relieve overloads on transmission facilities modeled in the Interchange Distribution Calculator (IDC).

Applicability

These requirements may be used to relieve congestion on any facility modeled within the IDC or an equivalent interconnection model.

Definition of Terms

- 008-0.1** **Approval Entity** – An entity that has approval rights for an Interchange Transaction Tag. This includes Transmission Service Providers (TSPs), Balancing Authorities (BAs), Purchasing-Selling Entities (PSEs), and Load Serving Entities (LSEs) involved in the Interchange Transaction.
- 008-0.2** **Area Control Error (ACE)** – The instantaneous difference between a Balancing Authority’s net actual and scheduled interchange, taking into account the effects of Frequency Bias and correction for meter error.
- 008-0.3** **Automatic Generation Control (AGC)** – Equipment that automatically adjusts generation in a Balancing Authority Area from a central location to maintain the Balancing Authority’s interchange schedule plus Frequency Bias. AGC may also accommodate automatic inadvertent payback and time error correction.
- 008-0.4** **Balancing Authority (BA)** – The entity responsible for integrating resource plans ahead of time, maintaining load-interchange-generation balance within a Balancing Authority Area, and supporting Interconnection frequency in real time.
- 008-0.5** **Balancing Authority Area (BAA)** - An electrical system bounded by Interconnection (tie-line) metering and telemetry, where the Balancing Authority controls (either directly or by contract) generation to maintain its Interchange Schedule with other Balancing Authority Areas and contributes to frequency regulation of the Interconnection.
- 008-0.6** **Bulk Electric System** – The electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. Radial transmission facilities serving only load with one transmission source are generally not included in this definition.

- 008-0.7** **Constrained Facility** – A transmission facility (line, transformer, breaker, etc.) that is approaching, is at, or is beyond its SOL or IROL.
- 008-0.8** **Constrained Flowgate** - A Flowgate that is approaching, is at, or is beyond System Operating Limits (SOL) or Interconnection Reliability Operating Limits (IROL).
- 008-0.9** **Constraint** – A limitation placed on Interchange Transactions that flow over a Constrained Facility or Flowgate.
- 008-0.10** **Contract Path** - A predetermined Transmission Service electrical path between contiguous Transmission Service Providers established for scheduling and commercial settlement purposes that represents the continuous flow of electrical energy between the parties to a transaction.
- 008-0.11** **Curtailment Threshold** – The minimum Transfer Distribution Factor which, if exceeded, will subject an Interchange Transaction to curtailment to relieve a transmission facility Constraint.
- 008-0.12** **Dynamic Schedule** – A telemetered reading or value that is updated in real time and used as a schedule in the AGC/ACE equation and the integrated value of which is treated as a schedule for interchange accounting purposes. Commonly used for scheduling jointly owned generation to or from another Balancing Authority Area.
- 008-0.13** **Firm Transmission Service** - The highest quality service offered to customers under a filed rate schedule that anticipates no planned interruption. Firm Transmission Service includes Firm Point-to-point Transmission Service and Firm Network Integration Transmission Service.
- 008-0.14** **Flowgate** – A designated point of the transmission system through which the Interchange Distribution Calculator calculates the power flow from Interchange Transactions.
- 008-0.15** **Frequency Bias** – A value, usually expressed in megawatts per 0.1 hertz (MW/0.1 Hz), associated with a Balancing Authority Area that approximates the Balancing Authority Area’s response to Interconnection and frequency error.
- 008-0.16** **Generation Shift Factor (GSF)** – A factor to be applied to a generator’s expected change in output to determine the amount of flow contribution that change in output will impose on an identified transmission facility or monitored Flowgate.
- 008-0.17** **Generator-to-Load Distribution Factor (GLDF)** - The algebraic sum of a GSF and an LSF to determine to total impact of an Interchange Transaction on an identified transmission facility or monitored Flowgate.

- 008-0.18** **Interchange Distribution Calculator (IDC)** – The mechanism used by Reliability Coordinators in the Eastern Interconnection to calculate the distribution of Interchange Transactions over specific transmission interfaces, which are known as “Flowgates.” It includes a database of all Interchange Transactions and a matrix of the Distribution Factors for the Eastern Interconnection.
- 008-0.19** **Interchange Transaction** - A transaction that crosses one or more Balancing Authorities’ boundaries. The planned energy exchange between two adjacent Balancing Authorities.
- 008-0.20** **Interchange Transaction Tag (Tag)** – An Interchange Transaction being submitted for implementation according to NERC “Electronic Tagging Functional Specification”, version 1.7.095
- 008-0.21** **Interconnection** – Any one of the three major electric system networks in North America: Eastern, Western, and ERCOT.
- 008-0.22** **Interconnection Reliability Operating Limit (IROL)** – The value (such as MW, MVar, Amperes, Frequency or Volts) derived from, or a subset of, the System Operating Limit, which if exceeded, could expose a widespread area of the Bulk Electric System to instability, uncontrolled separation(s) or cascading outages.
- 008-0.23** **Load Shift Factor (LSF)** - A factor to be applied to a load’s expected change in demand to determine the amount of flow contribution that change in demand will impose on an identified transmission facility or monitored Flowgate.
- 008-0.24** **Native Load (NL)** - The demand imposed on an electric utility or an entity by the requirements of all customers located within a franchised service territory that the electric utility or entity has statutory or contractual obligation to serve.
- 008-0.25** **NERC** – North American Electric Reliability Corporation
- 008-0.26** **Network Integration (NI) Transmission Service** – As specified in the Transmission Service Provider’s tariff, service that allows an electric Transmission Customer to integrate, plan, economically dispatch and regulate its network resources in a manner comparable to that in which the transmission owner serves Native Load customers.
- 008-0.27** **Non-Firm Transmission Service** - As specified in the Transmission Service Provider’s tariff, transmission service that is reserved and scheduled on an as-available basis and is subject to curtailment or interruption, and has less priority than Firm Transmission.

- 008-0.28** **Per Generator Method** – A methodology used by the IDC to calculate the portion of parallel flows on any Constrained Facility or Flowgate due to Network Integrated (NI) transmission service customers and service to Native Load (NL) customers for each Balancing Authority.
- 008-0.29** **Point-to-point (PTP) Transmission Service** - As specified in the Transmission Service Providers tariff, Transmission Service reserved and/or scheduled between specified points of receipt and delivery.
- 008-0.30** **Purchasing-Selling Entity (PSE)** – The entity that purchases or sells and takes title to energy capacity and interconnected operations services. PSE's may be affiliated or unaffiliated merchants and may and may not own generating facilities.
- 008-0.31** **Reliability Coordinator Information System (RCIS)** –The system that Reliability Coordinators use to post messages and share operating information in real time.
- 008-0.32** **Reallocation** – The process used to totally or partially curtail Transactions during TLR levels 3a, 3b or 5a events to allow Transactions using equal or higher priority to be implemented.
- 008-0.33** **Reliability Area** - The collection of generation, transmission, and loads within the boundaries of a Reliability Coordinator. Its boundary coincides with one or more Balancing Authority Areas.
- 008-0.34** **Reliability Coordinator (RC)** - An entity that provides the security assessment and emergency operations coordination for a group of Balancing Authorities, Transmission Service Providers, and Transmission Operators.
- 008-0.35** **Sink Balancing Authority** - The Balancing Authority in which the load (Sink) is located for an Interchange Transaction. (This will also be a receiving Balancing Authority for the resulting Interchange Schedule).
- 008-0.36** **System Operating Limit (SOL)** - The value (such as MW, MVar, Amperes, Frequency or Volts) that satisfies the most limiting of the prescribed operating criteria for a specified system configuration to ensure operation within acceptable reliability criteria. System Operating Limits are based upon certain operating criteria.
- 008-0.37** **Tie Facility(ies)** – The transmission facility(ies) interconnecting Balancing Authority Areas.
- 008-0.38** **Transfer Distribution Factor (TDF)** - The portion of an Interchange Transaction, expressed in percent that flows across a transmission facility (Flowgate).

- 008-0.39** **Transmission Customer** - Any eligible customer (or its designated agent) that can or does execute a transmission service agreement or can or does receive transmission service.
- 008-0.40** **Transmission Loading Relief (TLR)** - A procedure used in the Eastern Interconnection to relieve potential or actual loading on a Constrained Facility or Flowgate.
- 008-0.41** **Transmission Operator** – The entity that operates or directs the operations of transmission facilities.
- 008-0.42** **Transmission Service** – Services needed to move energy from a receipt point to a delivery point provided to Transmission Customers by Transmission Service Providers.
- 008-0.43** **Transmission Service Provider (TSP) or Transmission Provider (TP)**
- The entity that administers the transmission tariff and provides transmission services to qualified Transmission Customers under applicable transmission service agreements.

Business Practice Requirements

- 008-1** **GENERAL REQUIREMENTS REGARDING USE OF INTERCONNECTION-WIDE TLR PROCEDURES**
- 008-1.1** **USE OF INTERCONNECTION-WIDE TLR PROCEDURES**
- All Reliability Coordinators shall be obligated to follow the transmission loading relief procedures associated with the appropriate Interconnection-wide TLR procedure for their Interconnection.
- 008-1.2** **USE OF LOCAL PROCEDURES**
- A Reliability Coordinator shall be allowed to implement a local transmission loading relief or congestion management procedure simultaneously with the Interconnection-wide TLR procedure.
- 008-1.2.1** The Reliability Coordinator shall revert back to the Interconnection-wide TLR procedure in the event local procedures do not adequately alleviate the Interconnection Reliability Operating Limits (IROL) or System Operating Limits (SOL) violation.
- 008-1.3** **MARKET-BASED CONGESTION MANAGEMENT OR RE-DISPATCH PROCEDURES**
- Regulatory-approved market-based congestion management or re-dispatch procedures shall be allowed as a supplement to, or substitute for, the Interconnection-wide TLR procedure.

008-1.3.1 The Reliability Coordinator shall ensure that transactions associated with Point-to-point Transmission Service, Network Integration Transmission Service, and Transmission Service associated with Native Load, having been identified as linked with a Regulatory-approved Market-based congestion management procedure, are protected from curtailment to the extent that the Regulatory-approved Market-based congestion management procedure allows.

008-1.3.1.1 The Interchange Transaction shall retain its original transmission service priority for purposes of curtailment when the transmission service is not reserved on the Constrained Facility or Flowgate.

008-1.3.2 The Reliability Coordinator shall revert back to the Interconnection-wide TLR procedure in the event Market-based procedures do not adequately alleviate the IROL or SOL violations.

008-1.4 REGIONAL DIFFERENCES

Regional methods are included in this standard in Appendix D.

008-1.5 COMMERCIAL NOTIFICATIONS

The Reliability Coordinator shall simultaneously notify all parties affected by the invocation of a local congestion management procedure or the Interconnection-wide TLR procedure, using the notification method as specified by NERC (e.g. – the Reliability Coordinator Information System or successor).

008-1.6 ACCESS TO PROCEDURE LOGS

The Reliability Coordinator shall ensure that NERC TLR logs specifying the details associated with the initiation of TLR level 2 or higher and/or the invocation of the Interconnection-wide TLR procedure are available, subject to applicable confidentiality requirements, to all market participants, regardless of the procedure used to achieve that relief.

008-2 **INTERCHANGE TRANSACTION PRIORITIES FOR USE WITH INTERCONNECTION-WIDE TLR PROCEDURES**

008-2.1 PRIORITY OF INTERCHANGE TRANSACTIONS

The Reliability Coordinator shall recognize the Interchange Transaction priority determined by the Transmission Service reserved as follows:

008-2.1.1 Priority 0. Next-hour Market Service – NX (if offered by Transmission Service Provider)

008-2.1.2 Priority 1. Service over secondary receipt and delivery points – NS

008-2.1.3 Priority 2. Non-Firm Point-to-point Hourly Service – NH

- 008-2.1.4** Priority 3. Non-Firm Point-to-point Daily Service – ND
- 008-2.1.5** Priority 4. Non-Firm Point-to-point Weekly Service – NW
- 008-2.1.6** Priority 5. Non-Firm Point-to-point Monthly Service – NM
- 008-2.1.7** Priority 6. Network Integration Transmission Service from sources not designated as network resources – NN
- 008-2.1.8** Priority 7. Firm Point-to-point Transmission Service - (F) and Network Integration Transmission Service from Designated Resources – (FN)

008-2.2 INTERCHANGE TRANSACTION PRIORITY WHEN TRANSMISSION SERVICE IS RESERVED ON THE CONSTRAINED FACILITY(IES) OR FLOWGATE(S)

The Reliability Coordinator shall use the following procedure to establish the priority of an Interchange Transaction when Transmission Service is reserved on a Contract Path that includes the Constrained Facility(ies) or Flowgate(s): (See Appendix A for examples)

- 008-2.2.1** The Reliability Coordinator shall assign priority to the Interchange Transaction based upon the Transmission Service priority of the Transmission Service link with the Constrained Facility or Flowgate regardless of the Transmission Service priority on the other links along the Contract Path.
 - 008-2.2.1.1** The Reliability Coordinator shall consider the entire Interchange Transaction Non-Firm if the transmission link (i.e. a segment on the Contract Path) on the Constrained Facility or Flowgate is Non-Firm Transmission Service, even if other links in the Contract Path are Firm.
 - 008-2.2.1.2** The Reliability Coordinator shall consider the entire Interchange Transaction Firm if the transmission link on the Constrained Facility or Flowgate is Firm Transmission Service, even if other links in the Contract Path are Non-Firm.

008-2.3 INTERCHANGE TRANSACTION PRIORITY WHEN TRANSMISSION SERVICE IS NOT RESERVED ON THE CONSTRAINED FACILITY(IES) OR FLOWGATE(S)

The Reliability Coordinator shall use the following procedure to establish the priority of an Interchange Transaction when Transmission Service is reserved on a Contract Path that does not include the Constrained Facility or Flowgate: (See Appendix A for examples)

008-2.3.1 The Reliability Coordinator shall assign priority to the Interchange Transaction based upon the lowest Transmission Service priority of all Transmission Service links along the Contract Path.

008-2.3.1.1 The Reliability Coordinator shall consider the entire Interchange Transaction Non-Firm if any of the transmission links on the Contract Path are Non-Firm Transmission Service.

008-2.3.1.2 The Reliability Coordinator shall consider the entire Interchange Transaction Firm if all of the transmission links on the Contract Path are Firm Transmission Service, even if none of the transmission links are on the Constrained Facility or Flowgate, and shall not be curtailed to relieve a Constraint off the Contract Path until all Non-Firm Interchange Transactions that are at or above the Curtailment Threshold have been curtailed.

008-2.4 SUB-PRIORITIES DURING REALLOCATION

During Reallocation, the Reliability Coordinator shall utilize the following sub-priorities as established in the IDC, listed from highest priority to lowest priority, within each Non-Firm Transmission Service priority for determining how pending Interchange Transactions with equal or higher priority Transmission Service shall be loaded:

008-2.4.1 **Sub-priority S1**

Sub-priority S1 shall be assigned to that portion of an Interchange Transaction that is already flowing.

008-2.4.2 **Sub-priority S2**

Sub-priority S2 shall be assigned to that portion of an Interchange Transaction that has been curtailed or held by the Interconnection-wide TLR procedure.

008-2.4.3 Sub-priority S3

Sub-priority S3 shall be assigned to that incremental portion of an already flowing Interchange Transaction that is scheduled to increase from its current hour schedule in the upcoming hour in accordance with its energy profile, or schedules submitted prior to the implementation of the Interconnection-wide TLR procedure.

008-2.4.4 Sub-priority S4

Sub-priority S4 shall be assigned to a new or revised Interchange Transaction that is submitted after the Interconnection-wide TLR procedure has been declared.

008-3 EASTERN INTERCONNECTION PROCEDURE FOR PHYSICAL CURTAILMENT OF INTERCHANGE TRANSACTIONS

008-3.1 TLR LEVEL 1

When a Reliability Coordinator has initiated a TLR level 1 (Notify all Reliability Coordinators of potential SOL or IROL Violations), the Reliability Coordinator shall take no action against any Interchange Transaction.

008-3.2 TLR LEVEL 2

When a Reliability Coordinator has initiated a TLR level 2 (Hold transfers at present level to prevent SOL or IROL Violations), the Reliability Coordinator shall take the following actions:

008-3.2.1 The Reliability Coordinator should ensure that TLR level 2 is a transient state so that Interchange Transactions are properly initiated according to their transmission reservation priority.

008-3.2.1.1 The Reliability Coordinator should make best efforts possible to ensure that TLR level 2 does not exceed 30 minutes in duration.

008-3.2.1.2 If TLR level 2 exceeds 30 minutes in duration, the Reliability Coordinator shall document this action on the NERC TLR log.

008-3.2.2 The Reliability Coordinator shall hold the implementation of any additional Interchange Transactions using Non-Firm Transmission Service that are at or above the Curtailment Threshold.

008-3.2.3 The Reliability Coordinator shall allow additional Interchange Transactions that flow across the Constrained Facility or Flowgate to be initiated if their flow reduces the loading on the Constrained Facility or Flowgate or has a Transfer Distribution Factor (TDF) less than the Curtailment Threshold.

008-3.2.4 The Reliability Coordinator shall allow all Interchange Transactions using Firm Transmission Service to be initiated.

008-3.2.5 If an Interchange Transaction is identified as a Dynamic Schedule and the Transmission Service is considered Firm according to the constrained path method, then it will not be held by the IDC during TLR level 4 or lower. Adjustments to Dynamic Schedules in accordance with NERC INT-004-1 will not be held under TLR level 4 or lower.

008-3.3 TLR LEVEL 3A

When a Reliability Coordinator has initiated a TLR level 3a (Reallocation of Transmission Service by curtailing Interchange Transactions using Non-Firm Transmission Service to allow Interchange Transactions using higher priority Transmission Service to start), the Reliability Coordinator shall take the following actions:

008-3.3.1 The Reliability Coordinator shall allow those Interchange Transactions using Firm Transmission Service that have been submitted prior to the NERC-approved tag submission deadline for Reallocation (*as found in current version of NERC IRO-006-4*) to be initiated as scheduled.

008-3.3.1.1 The Reliability Coordinator shall hold an Interchange Transaction using Firm Transmission Service if the Interchange Transaction is submitted after the NERC-approved tag submission deadline for Reallocation during TLR level 3a, but shall allow the transaction to start in the following hour.

008-3.3.1.2 Reallocations for Dynamic Schedules are as follows: If an Interchange Transaction is identified as a Dynamic Schedule and the Transmission Service is considered Firm according to the constrained path method, then it will not be held by the IDC during TLR level 4 or lower. Adjustments to Dynamic Schedules in accordance with current version of NERC INT-004-1 will not be held under TLR level 4 or lower.

008-3.3.2 The Reliability Coordinator with the constraint shall consider for curtailment those Interchange Transactions using lower priority Non-Firm Transmission Service as specified in Requirement 2, “Interchange Transaction Priorities for use with Interconnection-wide TLR procedures” to allow higher priority Transmission Service schedules to start.

- 008-3.3.2.1** The Reliability Coordinator shall consider only those Interchange Transactions that have been submitted prior to the NERC-approved tag submission deadline for Reallocation during TLR level 3a for the upcoming hour.
- 008-3.3.2.1.1** Interchange Transactions submitted after this deadline shall be considered for Reallocation for the following hour. This applies to Interchange Transactions using either Non-firm Transmission Service or Firm Transmission Service. If an Interchange Transaction using Firm Transmission Service is submitted after the NERC-approved tag submission deadline and after the TLR is declared, that Transaction shall be held and then allowed to start in the upcoming hour.
- 008-3.3.2.2** The Reliability Coordinator shall only consider those Interchange Transactions at or above the Curtailment Threshold for which the Interconnection-wide TLR procedure is called.
- 008-3.3.2.3** The Reliability Coordinator shall displace Interchange Transactions utilizing lower priority Transmission Service with Interchange Transactions utilizing higher priority Non-Firm or Firm Transmission Service.
- 008-3.3.2.4** The Reliability Coordinator shall not curtail Interchange Transactions using Non-Firm Transmission Service to allow the initiation or increase of another transaction having the same Non-Firm Transmission Service priority.
- 008-3.3.2.5** If all Interchange Transactions using Non-Firm Transmission Service have been curtailed and there are additional requests to allow Interchange Transactions using Firm Transmission Service to begin that cannot be accommodated without violating an SOL/IROL, the Reliability Coordinator shall initiate TLR level 4 or level 5a as appropriate.
- 008-3.3.2.6** The Reliability Coordinator shall reload curtailed Interchange Transactions prior to starting new or increasing existing Interchange Transactions.
- 008-3.3.2.6.1** Interchange Transactions that were submitted prior to the initiation of the Interconnection-wide TLR procedure but were subsequently held from starting because they failed to meet the NERC-approved tag submission deadline for Reallocation during TLR level 3a or were held over from a TLR level 2, shall be considered to have been curtailed and thus would be eligible for reload at the same time as the curtailed Interchange Transaction.
- 008-3.3.3** The Reliability Coordinator shall consider for Reallocation and/or reload Interchange Transactions that have been held or curtailed as prescribed in this business practice standard according to their Transmission Service priorities when operating conditions permit.

008-3.3.3.1 The Reliability Coordinator shall fill available transmission capability by reloading or starting eligible Transactions using the Sub-priorities assigned in Requirements 2.4.1 through 2.4.4. In case all of the transactions in a sub-priority cannot be reloaded, the transactions in that sub-priority shall be loaded based on a pro rata basis by allocating the remaining available transmission capability in proportion to the scheduled amount.

008-3.3.4 The Reliability Coordinator shall consider for Reallocation Interchange Transactions that meet the NERC-approved tag submission deadline at the start of the following hour.

008-3.3.5 In considering transactions using Non-Firm Transmission Service for curtailment and/or Reallocation, the Reliability Coordinator shall consider transaction sub-priorities as follows:

008-3.3.5.1 Interchange Transactions with sub-priority S1 shall be allowed to continue flowing at the lesser of its current hour MW level or the MW level specified in the schedule for the upcoming hour. For calculated values less than zero, zero shall be used.

008-3.3.5.2 Interchange Transactions with sub-priority S2 shall be allowed to reload to the lesser of its current hour MW level or the MW level specified in the schedule for the upcoming hour. For calculated values less than zero, zero shall be used.

008-3.3.5.3 Interchange Transactions with sub-priority S3 shall be allowed to increase from its current hour MW level to the MW level specified in its schedule for the upcoming hour. For calculated values less than zero, zero shall be used.

008-3.3.5.4 Interchange Transactions with sub-priority S4 shall be allowed to start once all other Interchange Transactions with the same Transmission Service priority submitted prior to the initiation of the Interconnection-wide TLR procedure have been (re-)loaded.

008-3.4 TLR LEVEL 3B

When a Reliability Coordinator has initiated a TLR level 3b (curtail Interchange Transactions using Non-Firm Transmission Service arrangements to mitigate a SOL or IROL violation), the Reliability Coordinator shall take the following actions:

008-3.4.1 The Reliability Coordinator shall allow Interchange Transactions using Firm Transmission Service to start if they are submitted prior to the NERC-approved tag submission deadline during TLR level 3b.

008-3.4.1.1 The Reliability Coordinator shall only consider those Interchange Transactions at or above the Curtailment Threshold for which the Interconnection-wide TLR procedure is called.

- 008-3.4.1.2** Reallocations for Dynamic Schedules are as follows: If an Interchange Transaction is identified as a Dynamic Schedule and the Transmission Service is considered Firm according to the constrained path method, then it will not be held by the IDC during TLR level 4 or lower. Adjustments to Dynamic Schedules in accordance with current version of NERC INT-004-1 will not be held under TLR level 4 or lower.
- 008-3.4.2** To mitigate a SOL or IROL in the current hour, the Reliability Coordinator shall curtail Interchange Transactions using Non-Firm Transmission Service that are at or above the Curtailment Threshold as defined in section 3.10 and use the Interchange Transaction priorities as specified in Requirement 2 “Interchange Transaction Priorities for use with Interconnection-wide TLR procedures.”
- 008-3.4.3** To continue mitigation of the SOL or IROL for the beginning of the next hour, the Reliability Coordinator shall curtail additional Interchange Transactions using Non-Firm Transmission Service to provide transmission capacity for Interchange Transactions using Firm Transmission Service or Interchange Transaction using higher priority Non-Firm Transmission Service utilizing the Reallocation procedures as specified in Requirement 3.3.
- 008-3.4.4** If all Interchange Transactions using Non-Firm Transmission Service have been curtailed and there are additional requests to allow Interchange Transactions using Firm Transmission Service to begin that cannot be accommodated without violating an SOL/IROL, the Reliability Coordinator shall initiate TLR level 4, level 5a, or level 5b as appropriate.
- 008-3.5** TLR LEVEL 4
- When a Reliability Coordinator has initiated a TLR level 4 (Reconfigure Transmission), the Reliability Coordinator shall take the following actions:
- 008-3.5.1** The Reliability Coordinator shall hold (not implement) all new Interchange Transactions using Non-Firm Transmission Service that are at or above the Curtailment Threshold.
- 008-3.5.2** The Reliability Coordinator shall allow Interchange Transactions using Firm Transmission Service to start if they are submitted prior to the NERC-approved tag submission deadline during TLR level 3b.
- 008-3.5.2.1** If an Interchange Transaction is identified as a Dynamic Schedule and the Transmission Service is considered Firm according to the constrained path method, then it will not be held by the IDC during TLR level 4 or lower. Adjustments to Dynamic Schedules in accordance with current version of NERC INT-004-1 will not be held under TLR level 4 or lower.

008-3.6 TLR LEVEL 5A

When a Reliability Coordinator has initiated a TLR level 5a, the Reliability Coordinator shall allow additional Interchange Transactions using Firm Transmission Service to be implemented after all Interchange Transactions using Non-Firm Transmission Service have been curtailed. The Reliability Coordinator shall reallocate Transmission Service by curtailing on a pro rata basis Interchange Transactions using Firm Transmission Service to allow additional Interchange Transactions using Firm Transmission Service to start on a pro rata basis. These actions shall be taken in accordance with the NERC-approved tag submission deadline for Reallocation.

008-3.6.1 The Reliability Coordinator shall only consider those Interchange Transactions at or above the Curtailment Threshold for which the Interconnection-wide TLR procedure is called.

008-3.6.2 The Reliability Coordinator shall use the following process for reallocation of Interchange Transactions using Firm Transmission Service:

008-3.6.2.1 The Reliability Coordinator shall assist the Transmission Operator(s) in identifying known re-dispatch options that are available to the Transmission Customer that will mitigate the loading on the Constrained Facilities or Flowgates.

008-3.6.2.1.1 If such re-dispatch options are deemed insufficient to mitigate loading on the Constrained Facilities or Flowgates, the Reliability Coordinator shall continue to implement these re-dispatch options while simultaneously implementing other actions as described in this requirement.

008-3.6.2.2 The Reliability Coordinator shall calculate the percent of the overload on the Constrained Facility or Flowgate caused by Interchange Transactions utilizing Firm Transmission Service that are at or above the Curtailment Threshold and the Transmission Provider’s Native Load and untagged Network Integration Transmission Service, as required by the Transmission Provider’s filed tariff and as described in requirement 3.11, “Parallel flow calculation procedure for reallocating or curtailing Firm Transmission Service.”

008-3.6.2.3 The Reliability Coordinator shall curtail or reallocate Interchange Transactions utilizing Firm Transmission Service and ask for relief from the Transmission Provider’s Native Load and untagged Network Integration Transmission Service as identified in requirement 3.6.2.2 to allow the start of additional Interchange Transactions utilizing Firm Transmission Service provided those transactions were submitted in accordance to the NERC-approved tag submission deadline for Reallocation during TLR level 5a.

008-3.6.2.3.1 The Reliability Coordinator shall assist the Transmission Provider in curtailing Transmission Service to Network Integration Transmission Service customers and Native Load if such curtailments are required by the Transmission Provider's tariff.

008-3.6.2.3.2 The Reliability Coordinator will assist the Transmission Provider to ensure that available re-dispatch options will continue to be implemented.

008-3.7 TLR LEVEL 5B

When a Reliability Coordinator has initiated a TLR level 5b (curtail Interchange Transactions using Firm Transmission Service to mitigate a SOL or IROL violation), the Reliability Coordinator shall take the following actions:

008-3.7.1 The Reliability Coordinator shall use the following process for curtailment of Interchange Transactions using Firm Transmission Service:

008-3.7.1.1 The Reliability Coordinator shall assist the Transmission Operator(s) in identifying those known re-dispatch options that are available to the Transmission Customer that will mitigate the loading on the Constrained Facilities or Flowgates.

008-3.7.1.1.1 If such re-dispatch options are deemed insufficient to mitigate loading on the Constrained Facilities or Flowgates, the Reliability Coordinator shall continue to implement these re-dispatch options while simultaneously implementing other actions as described in this requirement.

008-3.7.1.2 The Reliability Coordinator shall calculate the percent of the overload on the Constrained Facility or Flowgate caused by Interchange Transactions utilizing Firm Transmission Service that are at or above the Curtailment Threshold and the Transmission Provider's Native Load and untagged Network Integration Transmission Service, as required by the Transmission Provider's filed tariff and as described in Requirement 3.11, "Parallel flow calculation procedure for reallocating or curtailing Firm Transmission Service."

008-3.7.1.3 The Reliability Coordinator shall curtail Firm Interchange Transactions utilizing Firm Transmission Service and shall ask for relief from the Transmission Provider's Native Load and untagged Network Integration Transmission Service as calculated in requirement 3.7.1.2 until the SOL or IROL violation has been mitigated.

008-3.7.1.3.1 The Reliability Coordinator will assist the Transmission Provider to ensure that available re-dispatch options will continue to be implemented.

008-3.7.1.3.2 The Reliability Coordinator shall assist the Transmission Provider in curtailing Transmission Service to Native Load and untagged Network Integration Transmission Service customers if such curtailments are required by the Transmission Provider's tariff.

008-3.8 TLR LEVEL 6

When a Reliability Coordinator initiates a TLR level 6 (emergency conditions), all parties shall comply with the Reliability Coordinator's (s') requests to return the system to a secure state.

008-3.9 TLR LEVEL 0

The Reliability Coordinator shall notify all affected parties when the Reliability Coordinator has returned the system to a reliable state.

008-3.9.1 The Reliability Coordinator shall re-establish Interchange Transactions at its discretion. Those with the highest transmission priorities shall be re-established first, as described in requirement 2.1, as practicable.

008-3.10 CURTAILMENT THRESHOLD

The Curtailment Threshold for the Eastern Interconnection shall be 0.05 (5%).

008-3.11 PARALLEL FLOW CALCULATION PROCEDURE FOR REALLOCATING OR CURTAILING FIRM TRANSMISSION SERVICE

The Reliability Coordinator initiating a curtailment shall identify for curtailment all firm transmission services (i.e. PTP, NI, and service to NL) that contribute to the flow on any Constrained Facility or Flowgate by an amount greater than or equal to the Curtailment Threshold on a pro rata basis.

008-3.11.1 The Reliability Coordinator shall use Transfer Distribution Factors (TDF's) to calculate the portion of parallel flows on any Constrained Facility or Flowgate due to Interchange Transactions using Firm Transmission Service.

008-3.11.1.1 Only those Interchange Transactions with TDF's greater than or equal to the Curtailment Threshold shall be considered.

008-3.11.2 The Reliability Coordinator shall use the Per Generator Method to calculate the portion of parallel flows on any Constrained Facility or Flowgates due to Network Integrated (NI) transmission service customers and service to Native Load (NL) customers for each Balancing Authority (See Appendix B for examples).

- 008-3.11.2.1** The Reliability Coordinator shall assign the amount of Constrained Facility or Flowgate relief that must be achieved by each NI transmission service or NL customers within a given Balancing Authority.
- 008-3.11.2.1.1** For each NI transmission service or NL customer, the Reliability Coordinator shall determine the amount of flow contributing to the Constrained Facility or Flowgate from those generators assigned to that customer using Generator-to-Load Distribution Factors (GLDFs) for those generators.
- 008-3.11.2.1.2** The GLDF for each generator shall determine the impact that generator has on the Constrained Facility or Flowgate.
- 008-3.11.2.1.3** The sum of the contributions to the Constrained Facility or Flowgate from all generators assigned to the NI transmission service or NL customer shall be the amount of relief assigned to that customer.
- 008-3.11.2.1.4** The Reliability Coordinator shall not specify how the reduction will be achieved.
- 008-3.11.2.2** GLDFs shall be calculated for each NI transmission service and NL customer as the Generation Shift Factors (GSFs) of the NI transmission service or NL customer's assigned generation minus its Load Shift Factors (LSFs).
- 008-3.11.2.2.1** GSFs shall be calculated from a single bus in the study case.
- 008-3.11.2.2.2** LSFs shall be calculated by scaling load.
- 008-3.11.2.2.3** The GLDFs must be greater than or equal to the Curtailment Threshold to be considered.
- 008-3.11.2.2.4** GLDFs whose contributions are counter to the constraint (i.e. counter flow) shall be ignored for the purposes of the calculation.
- 008-3.11.2.3** Each generator shall be assigned to a given NI transmission service or NL customer within a Balancing Authority Area for the purposes of calculating their contribution to a given constraint. Exceptions may include special cases where generators are only included for case modeling purposes.
- 008-3.11.2.4** For a given generator bus, all generators modeled at that bus shall be assumed online and operating at their maximum MVA value except as noted otherwise in this procedure.
- 008-3.11.2.4.1** At the time of calculation, daily operating reliability information will be used to update the calculation for transmission line outages, generator outage or derate information, and daily load forecasts as appropriate.

- 008-3.11.2.4.2** Only those generator buses whose aggregate modeled capacity exceeds 20MW shall be considered. Generator buses whose aggregate modeled capacity does not exceed 20MW shall be excluded.
- 008-3.11.2.5** Generators shall be assigned to a given NI transmission service or NL customer based upon the customer's controlling interest in the facility and may include partial facilities or facilities from Balancing Authority Areas external to the customer's host Balancing Authority.
- 008-3.11.2.6** If the total amount of generation from the generation facilities assigned to a given NI transmission service or NL customer exceed the total load for that customer, the generation shall be scaled down to match that customer's total load.
- 008-3.11.2.7** If the total amount of generation from the generation facilities assigned to a given NI transmission service or NL customer is less than the total load for that customer, it shall be assumed that the imports necessary to meet total load are being scheduled on Point-to-point Transmission Service. Generation shall not be scaled to meet load in this instance.
- 008-3.11.2.8** All NI transmission service and NL customers in the Eastern Interconnection, working with their respective Balancing Authorities, shall be obligated to achieve the amount of relief assigned to them by the Reliability Coordinator via the Per Generator Method.

008-A Appendix A

Examples of On-Path and Off-Path Mitigation

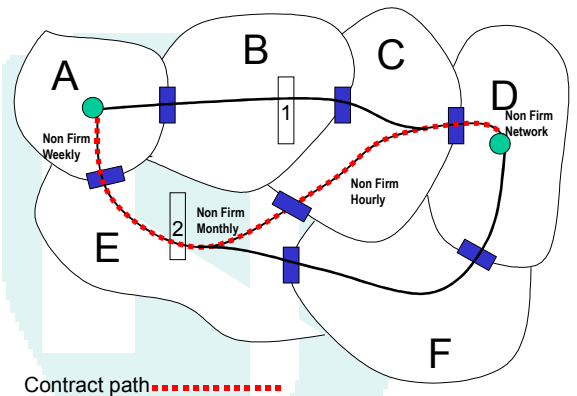
This section explains, by example, the obligations of the Transmission Service Providers on and off the Contract Path when calling for Transmission Loading Relief. When Reallocating or curtailing Interchange Transactions using Firm Transmission Service under TLR level 5a or 5b, the Transmission Service Providers may be obligated to perform comparable curtailments of its Transmission Service to Network Integration and Native Load customers.

Scenario:

- Interchange Transaction arranged from system A to system D, and assumed to be at or above the Curtailment Threshold
- Contract Path is A-E-C-D (except as noted)
- Locations 1 and 2 denote Constraints

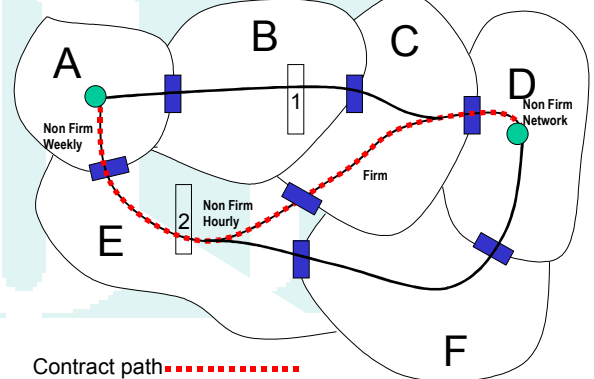
Case 1: E is a Non-Firm monthly path, C is Non-Firm hourly; E has Constraint at #2.

- E may call Reliability Coordinator for TLR Procedure to relieve overload at Constraint #2.
- Interchange Transaction A-D may be curtailed by TLR action **as though it was being served by Non-Firm monthly Point-to-point Transmission Service**, even though it was using Non-Firm hourly Point-to-point Transmission Service from C. That is, it takes on the priority of the link with the Constrained Facility or Flowgate along the Contract Path. (See section 2.2.)



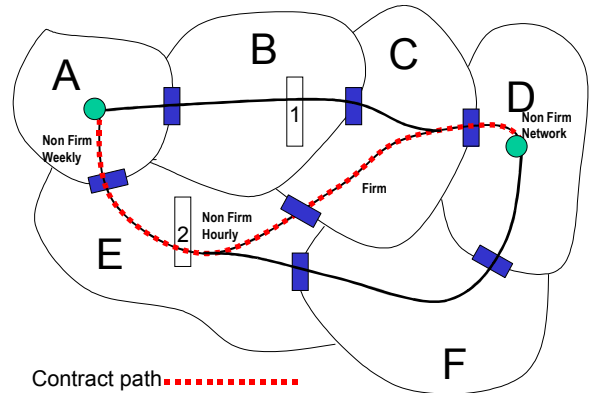
Case 2: E is a Non-Firm hourly path, C is Firm; E has Constraint at #2.

- Although C is providing Firm Transmission Service, the Constraint is not on C's system; therefore, E is not obligated to treat the Interchange Transaction as though it was being served by Firm Transmission Service.
- E may call Reliability Coordinator for TLR Procedure to relieve overload at Constraint #2.
- Interchange Transaction A-D may be curtailed by TLR action as though it was being served by Non-Firm hourly Point-to-point Transmission Service, even though it was using Firm Transmission Service from C. That is, when the Constraint is on the Contract Path, the Interchange Transaction takes on the priority of the link with the Constrained Facility or Flowgate. (See section 2.2.)



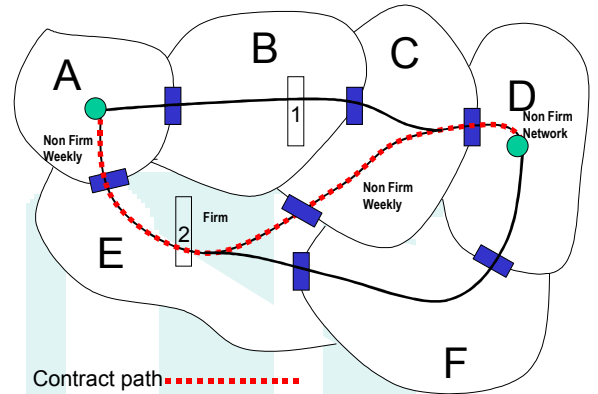
•
Case 3: E is a Non-Firm hourly path, C is Firm, B has Constraint at #1.

- B may call Reliability Coordinator for TLR Procedure to relieve overload at Constraint #1.
- Interchange Transaction A-D may be curtailed by TLR action as though it was being served by Non-Firm hourly Transmission Service, even if it was using Firm Transmission Service elsewhere on the path. When the Constraint is off the Contract Path, the Interchange Transaction takes on the lowest priority reserved on the Contract Path. (See section 2.3.)



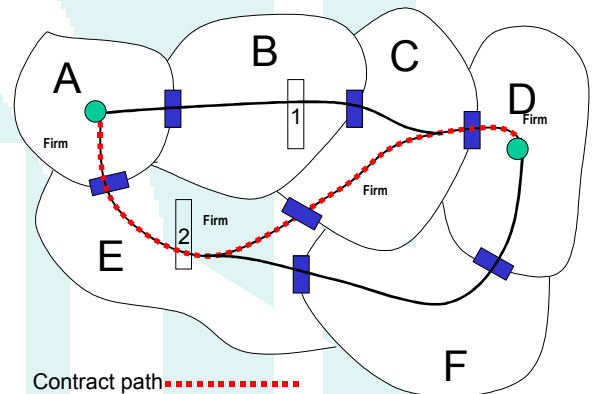
Case 4: E is a Firm path; A, D, and C are Non-Firm; E has Constraint at #2.

- Interchange Transaction A – D is considered Firm priority for curtailment purposes.
- E may then call Reliability Coordinator for TLR, which would curtail all Interchange Transactions using Non-Firm Transmission Service first.
- E is obligated to try to reconfigure transmission to mitigate Constraint #2 in E before E may curtail the Interchange Transaction as ordered by the TLR. (See Section 2.2)



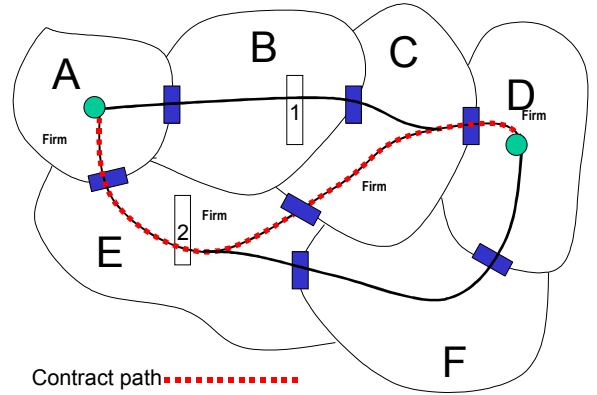
Case 5: The entire path (A-E-C-D) is Firm; E has Constraint at #2.

- Interchange Transaction A – D is considered Firm priority for curtailment purposes.
- E may call Reliability Coordinator for TLR, which would curtail all Interchange Transactions using Non-Firm Transmission Service first.
- E is obligated to curtail Interchange Transactions using Non-Firm Transmission Service, and then reconfigure transmission on its system, or, if there is an agreement in place, arrange for reconfiguration or other congestion management options on another system, to mitigate Constraint #2 in E before the Firm A-D transaction is curtailed. (See section 2.2.)
- A, C, D, may be requested by E to try to reconfigure transmission to mitigate Constraint #2 in E at E's expense. (See section 2.2.)



Case 6: The entire path (A-E-C-D) is Firm; B has Constraint at #1.

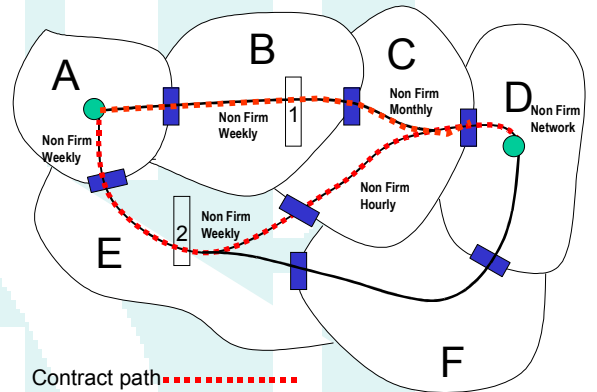
- Interchange Transaction A – D is considered Firm priority for curtailment purposes.
- B may call Reliability Coordinator for TLR Procedure for all *Non-Firm* Interchange Transactions that contribute to the overload at Constraint #1.
- Following the curtailment of all Non-Firm Interchange Transactions, the Reliability Coordinator(s) will determine which Transmission Operator(s) will reconfigure their transmission, if possible, to mitigate Constraint #1. (See section 2.3.)



- A-D transaction may be curtailed as a result. However, the A-D transaction is treated as a Firm Interchange Transaction and will be curtailed only after Non-Firm Interchange Transactions. (Note: This means that the Firm Contract Path is respected by all parties, including those not on the Contract Path.) (See section 2.3.)

Case 7: Two A-to-D transactions using A-B-C-D and A-E-C-D; A and B are Non-Firm; B has Constraint at #1

- B is not obligated to reconfigure transmission to mitigate Constraint #1. (See section 2.2.)
- B may call for TLR Procedure to relieve overload at Constraint #1.
- If both A – D Interchange Transactions have the same TDF across Constraint #1, then they both are subject to curtailment. However, Interchange Transaction A – D using the A-B-C-D path is assigned a higher priority (priority NW on B), and would not be curtailed until after the Interchange Transaction using the path A-E-C-D (priority NH on the Contract Path as observed by B who is off the Contract Path).



008-B Appendix B

Example Calculations of the Per Generator Method

Example 1: The Per Generator Method Calculation

An example of calculating Firm transaction curtailments using the Per Generator Method is provided in this section, assuming that the Constrained Flowgate is #3006 (Eau Claire-Arpin 345 kV circuit). The Generator-to-Load Distribution Factors (GLDFs) for this Flowgate are presented in Table B-1. In this example, a total Firm (PTP and tagged NI transactions) contribution of 708.85 MW is assumed to be given by the IDC.

From Table B-1, the untagged NI/NL contributions of all Balancing Authority Areas that impact the Constrained Facility or Flowgate are listed below:

ALTE = 27.0 MW

ALTW = 41.1 MW

NSP = 33.1 MW

WPS = 26.2 MW

Total NL & untagged NI contribution = 127.4 MW

Total Firm (PTP and NI/NL) contribution = 127.4 MW + 708.85 MW = 836.25 MW

NL & NI portion of total Firm contribution = $127.4/836.25 = 15.2\%$

PTP and tagged NI portion of total Firm contribution = $708.85/836.25 = 84.47\%$

Allocation of relief of the Constrained Facility or Flowgate to each Balancing Authority Area with impactful untagged NI/NL contribution is given below:

ALTE = $27.0 / 127.4 \times 0.152 = 3.2\%$

ALTW = $41.1 / 127.4 \times 0.152 = 4.9\%$

NSP = $33.1 / 127.4 \times 0.152 = 3.9\%$

WPS = $26.2 / 127.4 \times 0.152 = 3.1\%$

Assume that 50 MW of relief is needed. Then those Balancing Authority Areas that impact NI/NL contribution and Firm Transmission Service are responsible for the providing the following amounts of Flowgate relief:

Relief provided by removing Firm PTP and tagged NI = $0.845 \times 50 = 42.25$ MW

Relief provided by removing NL and untagged NI contributions ALTE = $0.032 \times 50 = 1.60$ MW

Relief provided by removing NL and untagged NI contributions ALTW = $0.049 \times 50 = 2.45$ MW

Relief provided by removing NL and untagged NI contributions NSP = $0.039 \times 50 = 1.95$ MW

Relief provided by removing NL and untagged NI contributions WPS = $0.031 \times 50 = 1.55$ MW

Table B-1

Native Load Responsibilities

Flowgate #: 3006 Flowgate Name: EAU CLAIRE-ARPIN 345 KV

Common Name	Generator Reference System	Generator Shift Factor (GSF)	Percent Assigned	GLDF Gen to Load Factor	Pmax (MW)	Energy on Flowgate
ALTE #364	Avail Assigned Gen: 1,514 Load Level: 1,796 Scaling: 1.000	ALTE_LD Load Shift Factor: -0.097				
NED G1 13.8--1 CA=ALTE	39000_NED_G1	0.022	100	.1195	113.0	13.5
NED G2 13.8--2 CA=ALTE	39001_NED_G2	0.022	100	.1195	113.0	13.5
Summary						27.0
WPS #366	Avail Assigned Gen: 1,691 Load Level: 1,910 Scaling: 1.000	WPS_LD Load Shift Factor: -0.193				
COL G1 22.0--1 CA=ALTE	39152_COL_G1	-0.094	32	.0993	525.0	16.6
COL G2 22.0--2 CA=ALTE	39153_COL_G2	-0.094	32	.0993	525.0	16.6
EDG G4 22.0--4 CA=ALTE	39207_EDG_G4	-0.118	32	.0752	331.0	7.9
Summary						41.1
NSP #623	Avail Assigned Gen: 8,492 Load Level: 8,484 Scaling: 0.999	NSP_LD Load Shift Factor: 0.206				
WHEATON5 161--1 CA=NSP	61870_WHEATO	0.298	100	.0919	55.0	5.0
WHEATON5 161--2 CA=NSP	61870_WHEATO	0.298	100	.0919	63.0	5.8
WHEATON5 161--3 CA=NSP	61870_WHEATO	0.298	100	.0919	55.0	5.0
WHEATON5 161--4 CA=NSP	61870_WHEATO	0.298	100	.0919	55.0	5.0
WHEATON5 161--5 CA=NSP	61871_WHEATO	0.293	100	.0874	57.0	5.0
WHEATON5 161--6 CA=NSP	61871_WHEATO	0.293	100	.0874	57.0	5.0
WISSOTAG69.0--1 CA=NSP	69168_WISSOT	0.266	100	.0601	37.0	2.2
Summary						33.1
ALTW #631	Avail Assigned Gen: 2,337 Load Level: 3,640 Scaling: 1.000	ALTW_LD Load Shift Factor: 0.065				
FOXK53G13.8--3 CA=ALTW	62016_FOXLK5	0.147	100	.0819	88.5	7.3
LANS5 4G22.0--4 CA=ALTW	62057_LANS5_	0.116	100	.0506	277.0	14.0
LANS5 3G22.0--3 CA=ALTW	62058_LANS5_	0.116	100	.0505	35.8	1.8
FAIRMONT69.0--3 CA=ALTW	65816_FAIRMO	0.151	100	.0857	5.0	0.4
FAIRMONT69.0--4 CA=ALTW	65816_FAIRMO	0.151	100	.0857	6.0	0.5
FAIRMONT69.0--5 CA=ALTW	65816_FAIRMO	0.151	100	.0857	12.0	1.0
FAIRMONT69.0--6 CA=ALTW	65816_FAIRMO	0.151	100	.0857	7.0	0.6
FAIRMONT69.0--7 CA=ALTW	65816_FAIRMO	0.151	100	.0857	6.5	0.6
Summary						26.2
TOTAL Summary						127.4

Example 2: Use of Per Generator Method while Simultaneously Curtailing Transmission Service

An example of the output of the IDC calculation of curtailment of Firm Transmission Service is provided below for the specific Constrained Facility or Flowgate identified in the NERC Book of Flowgates as Flowgate 1368. In this example, a total Firm PTP and tagged NI contribution to the Constrained Facility or Flowgate, as calculated by the IDC, is assumed to be 21.8 MW.

The Table B-2 below presents a summary of each Balancing Authority’s responsibility to provide relief to the Constrained Facility or Flowgate due to its untagged NI Transmission Service and service to NL contribution to the Constrained Facility or Flowgate. In this example, Balancing Authority LAGN would be requested to curtail 17.3 MW of its total of 401.1 MW of flow contribution on the Constrained Facility or Flowgate.

In summary, Interchange Transactions would be curtailed by a total of 21.8 MW and untagged NI Transmission Service and service to NL would be curtailed by a total of 178.2 MW by the five Balancing Authorities identified in the table. These curtailments would provide a total of 200.0 MW of relief to the Constrained Facility or Flowgate.

Table B-2

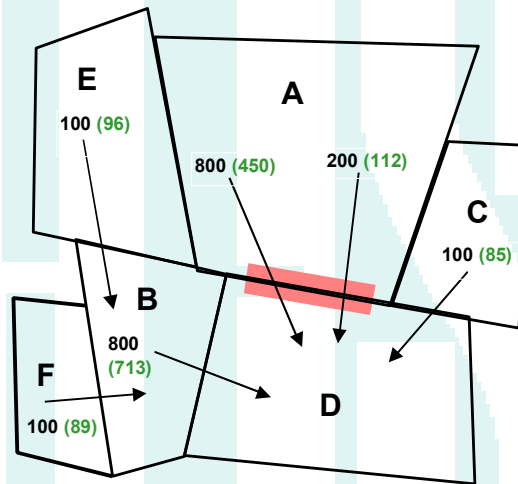
<i>Sink Reliability Coordinator</i>	<i>Service Point</i>	<i>Scaled P Max</i>	<i>Flowgate untagged NI &NL MW</i>	<i>Current untagged NI &NL Relief</i>	<i>untagged NI &NL Responsibility</i>		<i>untagged NI &NL Responsibility Acknowledgement</i>	
					<i>Inc/Dec</i>	<i>Current Hr</i>	<i>Acknowledge Time</i>	<i>Total MW Resp.</i>
EES	EES	8429.7	2991.4	0.0	128.9	128.9	13:44	128.9
EES	LAGN	1514.0	718.6	0.0	31.0	31.0	13:44	31.0
SOCO	SOCO	5089.2	401.1	0.0	17.3	17.3	13:44	17.3
SWPP	CLEC	235.7	18.0	0.0	0.8	0.8	13:42	0.8
SWPP	LEPA	22.8	4.1	0.0	0.2	0.2	13:42	0.2
Total		15291.4	4133.2	0.0	178.2	178.2		178.2

008-C Appendix C**Transaction Curtailment Formula****Example**

This example is based on the premise that a transaction should be curtailed in proportion to its Transfer Distribution Factor (TDF) on the Constraints. Its effect on the interface is a combination of its size in MW and its effect based on its distribution factor.

<u>Column</u>	<u>Description</u>
1. Initial transaction	Interchange Transaction before the TLR Procedure is implemented.
2. Distribution factor	Proportional effect of the transaction over the constrained interface due to the physical arrangement and impedance of the transmission system.
3. Impact on the interface	Result of multiplying the transaction MW by the distribution factor. This yields the MW that flow through the constrained interface from the transaction. Performing this calculation for each transaction yields the total flow through the constrained interface from all the Interchange Transactions. In this case, 760 MW.
4. Impact weighting factor	“Normalization” of the total of the distribution factors in column 2. Calculated by dividing the distribution factor for each transaction by the total of the distribution factors.
5. Weighted maximum interface reduction	Multiplying the impact on the interface from each transaction by its impact weighting factor yields a new proportion that is a combination of the MW impact on the interface and the distribution factor.
6. Interface reduction	Multiplying the amount needed to reduce the flow over the constrained interface (280 MW) by the normalization of the weighted maximum interface reduction yields the actual MW reduction that each transaction must <i>contribute</i> to achieve the total reduction.
7. Transaction reduction	Divide by the distribution factor to see how much the transaction must be reduced to yield result we calculated in column 7. Note that the reductions for the first two Interchange Transactions (A-D (1) and A-D (2) are in proportion to their size since their distribution factors are equal.
8. New transaction amount	Subtracting the transaction reduction from the initial transaction yields the new transaction amount.
9. Adjusted impact on interface	A check to ensure the new constrained interface MW flow has been reduced to the target amount.

A-D(1)	1000	0.6	600	1.00	600.00	268.76	447.94	552.06	331.24
B-D	800	0.15	120	0.20	24.00	10.75	71.67	728.33	109.25
C-D	100	0.2	20	0.03	0.67	0.30	1.49	98.51	19.70
E-B	100	0.05	5	0.01	0.04	0.02	0.37	99.63	4.98
F-B	100	0.15	15	0.03	0.38	0.17	1.12	98.88	14.83
	2100		760	1.27	625.08	280.00	522.60	1577.40	480.00
A-D(1A)	200	0.6	120	1.00	120.00	46.32	77.20	122.80	73.68
A-D(1B)	200	0.6	120	1.00	120.00	46.32	77.20	122.80	73.68
A-D(1C)	200	0.6	120	1.00	120.00	46.32	77.20	122.80	73.68
A-D(1D)	200	0.6	120	1.00	120.00	46.32	77.20	122.80	73.68
A-D(2)	200	0.6	120	1.00	120.00	46.32	77.20	122.80	73.68
B-D	800	0.15	120	1.00	120.00	46.32	308.79	491.21	73.68
C-D	100	0.2	20	0.17	3.33	1.29	6.43	93.57	18.71
E-B	100	0.05	5	0.04	0.21	0.08	1.61	98.39	4.92
F-B	100	0.15	15	0.13	1.88	0.72	4.82	95.18	14.28
	2100		760	6.33	725.42	280.00	707.64	1392.36	480.00



This flowchart depicts an overview of the Transaction Management and Curtailment process. Detailed decisions are not shown.

008-D Appendix D

Regional Differences

Section A

PJM/Midwest ISO, Inc. – Enhanced Congestion Management Method (Curtailment/Reload/Reallocation)

Organization

The Balancing Authority participants of:

- Midwest ISO, Inc. (Hereafter referred to as MISO)
- PJM Interconnection, L.L.C. (Hereafter referred to as PJM)

Business Practice

This methodology implements a Multi-Balancing Authority Energy Market, simplifies transaction information requirements for market participants, and allows for a means of providing Reliability Coordinators with appropriate information for security analysis and curtailments/reloads/reallocations and redispatch requirements.

To accommodate a Multi-Balancing Authority Energy Market, this methodology provides for regional differences from the NERC and NAESB specific standards listed below.

This methodology also applies in the event that the above Balancing Authorities are combined into fewer Balancing Authorities or into one Balancing Authority. This methodology is required to realize the benefits of a LMP market operation while increasing the level of granularity of information provided to the NAESB and NERC Transmission Loading Relief standards. The concepts contained within the PJM/MISO paper, “Managing Congestion to Address Seams,” (see footnote 1) meet the requirements specified in this standard, its related appendices, and NERC Standards.

The processes proposed in this methodology affect the following specific sections:

- **Appendix E “How the IDC Handles Reallocation” of NERC IRO-006-1**, (Effective date of standard August 8, 2005)
- **Appendix E “Timing Requirements (IDC Calculations and Reporting Requirements” of NERC IRO-006-1**
- **Appendix C “Transaction Curtailment Formula” of this document Section 6 “Interchange Transaction Reallocation During TLR Levels 3a and 5a” of NERC IRO-006-1**, For the purposes of clarity, this methodology describes many actions as those of the “RTO.” It should be noted that “RTO” refers to the market-operating entity in which the subject Balancing Authorities participate.

Assignment of Sub-Priorities

Requirements

- Requirements 3.3 and 3.6 of this document and as found in NERC IRO-006-1, Appendix E

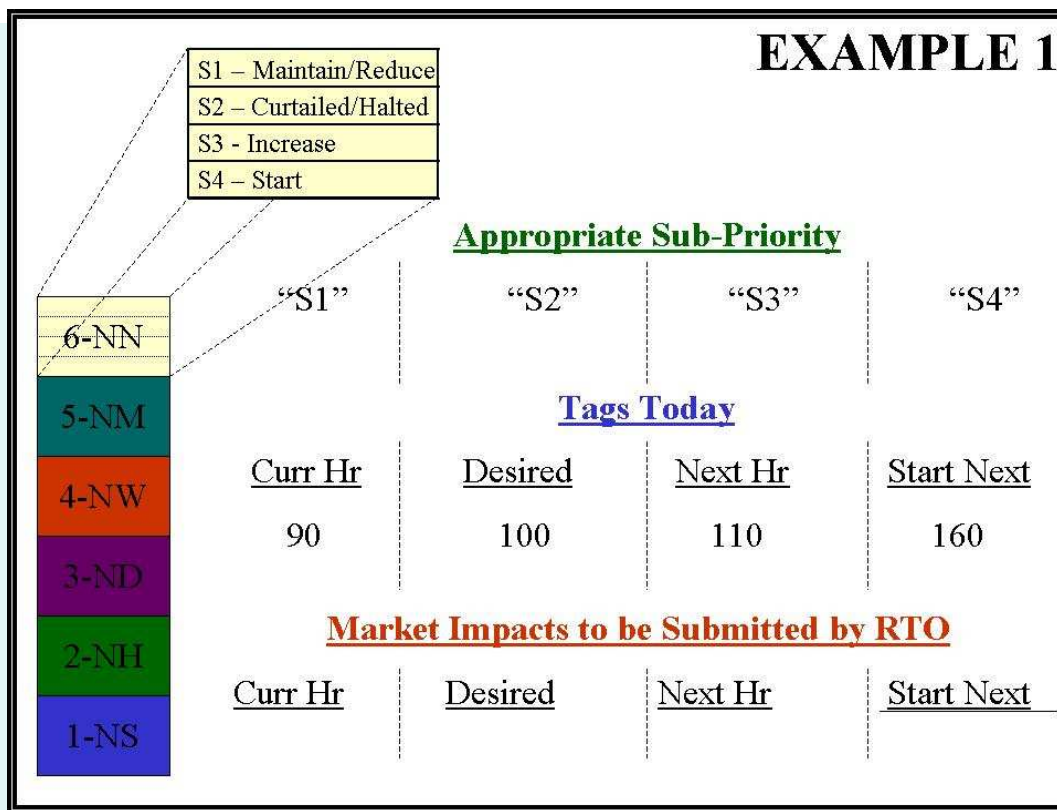
Explanation

The “IDC Calculations and Reporting Requirements” section of NERC IRO-006-1, Appendix E “Timing Requirements” states that “In a TLR Level 3a the Interchange Transactions using Non-firm Transmission Service in a given priority will be further divided into four sub-priorities, based on current schedule, current active schedule (identified by the submittal of a tag ADJUST message), next-hour schedule, and tag status.”

The RTO shall use a “Market Flow Calculation” methodology to calculate the amount of energy flowing across all facilities included in the RTO’s “Coordinated Flowgate List”¹ that is associated with the operation of the RTO market. This energy is identified as “market flow”.

These market flow impacts for current hour and next hour shall be separated into their appropriate priorities² and provided to the IDC by the RTO. The market flows shall then be represented and made available for curtailment under the appropriate TLR Levels.

Even though these market flow impacts (separated into appropriate priorities) will not be represented by conventional “tags”, the impacts and their desired levels shall be provided to the IDC for current hour and next hour. Therefore, the RTO, for the purposes of reallocation, shall be assigned by the NERC IDC a sub-priority (S1 thru S4) to these market flow impacts, using the same parameters as would be used if the impacts were in fact tagged transactions — as detailed in NERC IRO-006-1, Appendix E “How the IDC Handles Reallocation”. (See example 1 below).



1 The RTO will conduct sensitivity studies to determine which external Flowgates (outside the RTO’s footprint) are significantly impacted by the market flows of the RTO’s control zones (currently the Balancing Authorities that exist today in the IDC). The RTO will perform the 4 studies as described in the MISO/PJM Paper “Managing Congestion to Address Seams” White Paper (Version 3.2, May 16, 2003, located on the NAESB website at http://www.naesb.org/pdf2/weq_bps101205w3.pdf) to determine which external Flowgates the RTO will monitor and help control. An external Flowgate selected by one of these studies will be considered a coordinated Flowgate (CF).

2 See footnote 1 for details on how these priorities will be assigned.

Pro Rata Curtailment of Non-Firm Market Flow Impacts

Requirements

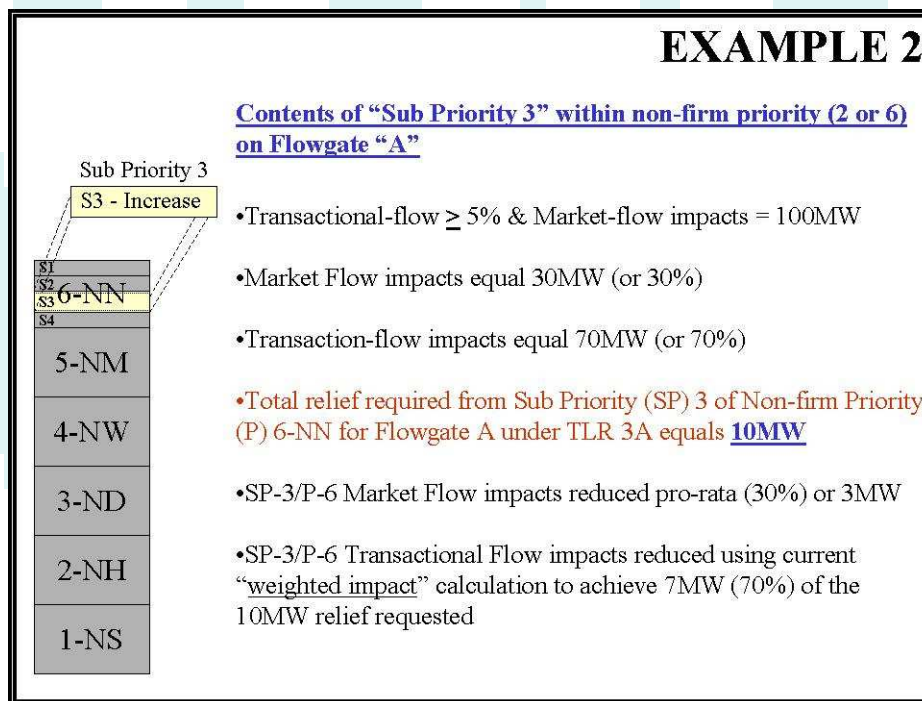
- **Appendix C of this document** “Transaction Curtailment Formula”

Explanation

Appendix C of this document “Transaction Curtailment Formula” details the formula used to apply a weighted impact to each Non-Firm tagged transaction (priorities 1 thru 6 as defined in section 2.1 of this business practice standard) for the purposes of curtailment by the IDC. For the purpose of curtailment, the non-firm market flow impacts (priorities 1 thru 6) submitted to the IDC by the RTO shall be curtailed pro rata as is done for Interchange Transactions using Firm Transmission Service. This method shall be used, because several of the values needed to assign a weighted impact using the process listed in Appendix C of this document “Transaction Curtailment Formula” will not be available:

- Distribution factor (no tag to calculate this value from)
- Impact on interface value (cannot be calculated without distribution factor)
- Impact weighting factor (cannot be calculated without distribution factor)
- Weighted maximum interface reduction (cannot be calculated without distribution factor)
- Interface reduction (cannot be calculated without distribution factor)
- Transaction reduction (cannot be calculated without distribution factor)

While the Non-Firm market flow impacts submitted to the IDC would be curtailed pro rata under this methodology, the impacting Non-Firm tagged transactions could still use the existing processes to assign the weighted impact value. Example 2 (below) illustrates how this would be accomplished.



NNL Calculation

Requirements

- **Requirement 3.11 “Parallel flow calculation procedure of reallocating or curtailing Firm Transmission Service” of this document** ‘Parallel Flow Calculation Procedure for Reallocating or curtailing Firm Transmission Service’
- **NERC “Parallel Flow Calculation Procedure Reference Document”, version 1 – section C** (Calculation Method), approved November 16, 2000, as found in the NERC Operating Manual.

Explanation

Requirement 3.11 of this document and the NERC “Parallel Flow Calculation Procedure Reference Document”, version 1 – section C (Calculation Method), approved November 16, 2000, as found in the NERC Operating Manual, currently require that the “Per Generator Method Without Counter Flow” (see footnote 1, PJM/MISO “Managing Congestion at the Seams” White Paper) methodology be utilized to calculate the portion of parallel flows on any Constrained Facility due to Network Integration (NI) transmission service and service to Native Load (NL) of each Balancing Authority.

The RTO shall use a “Market Flow Calculation” methodology to calculate the portion of parallel flows on all facilities included in the RTO’s “Coordinated Flowgate List”³ due to NI service or service to NL of each Balancing Authority.

- The contribution from all market area generators shall be taken into account.
- In the Per Generator Method, only generators having a GLDF greater than 5% are included in the calculation. Additionally, generators are included only when the sum of the maximum generating capacity at a bus is greater than 20 MW. The market flow calculations shall use all positively impacting flows down to 0% with no threshold. Counter flows shall not be included in the market flow calculation.
- The contribution of all market area generators is based on the present output level of each individual unit.
- The contribution of the market area load is based on the present demand at each individual bus.

By expanding on the Per Generator Method, the market flow calculation evolves into a methodology very similar the “Per Generator Method” method, while providing granularity on the order of the most granular method developed by the NERC IDC Granularity Task Force. Counter flows are also calculated and tracked in order to account for and recognize that either the positive market flows may be reduced or counter flows may be increased to provide appropriate relief on a Flowgate. Under this methodology, the use of real-time values in concert with the market flow calculation effectively implements the most accurate and detailed method of the six IDC granularity options⁴ considered by the NERC IDC Granularity Task Force.

³ See footnote 1. The RTO will conduct sensitivity studies to determine which external Flowgates (outside the RTO’s footprint) are significantly impacted by the market flows of the RTO’s control zones (currently the balancing authorities that exist today in the IDC). The RTO shall perform the four studies (described in the MISO/PJM paper “Managing Congestion to Address Seams,” Version 3.2) to determine which external Flowgates the RTO shall monitor and help control. An external Flowgate selected by one of these studies will be considered a Coordinated Flowgate (CF).

⁴ The NERC IDC Granularity Task Force drafted “White Paper on the Future of Congestion Management”, draft version 2.1, completed June of 2004 (located on the NAESB website at http://www.naesb.org/pdf/weq_bps120904a3.doc). Although the task force originally discussed six options for granularity, three options were included in the paper as possible options.

Units assigned to serve a market area's load do not need to reside within the RTO's market area footprint to be considered in the market flow calculation. However, units outside of the RTO's market area shall not be considered when those units have tags associated with their transfers.

These NNL values shall be provided to the IDC to be included and represented with the calculated NNL values of all non-RTO Balancing Authorities for the purposes identifying and obtaining required NNL relief across a Flowgate in congestion under a TLR Level 5A/5B.

5% Curtailment Threshold

Requirements

- **Requirements 3.3.2.2, 3.4.1.1, and 3.6.1 of this document.**
- **Requirement 3.10 “Curtailment Threshold” of this document.**
-

Explanation

Requirements 3.3.2.2, 3.4.1.1, and 3.6.1 of this document state the following: “The Reliability Coordinator shall only consider those Interchange Transactions at or above the Curtailment Threshold for which the Interconnection-wide TLR procedure is called.

The Curtailment Threshold stated in requirement 3.10 is “5%”.

The RTO intends to use a “Market Flow Calculation” methodology to calculate the amount of energy flowing across all facilities included in the RTO's “Coordinated Flowgate List”⁵ that is associated with the operation of the RTO market. This energy is identified as “Market Flow”.

The RTO intends to provide to the IDC any market flows with an impact of greater than 0% on a coordinated Flowgate. These market flows shall be represented and made available for curtailment under the appropriate TLR Levels. Hence, for the purposes of curtailment and reallocation, the RTO shall observe an impact threshold of 0% instead of 5% for its market flows across any Flowgate in the RTO Coordinated Flowgate List (see footnote 1).

The reason for this lower threshold is because of the size and scope of a large non-tagged energy market, such as the Multi-Balancing Authority market, and an impact of less than 5% on a Flowgate could still represent a large amount of the total capacity of that Flowgate. Therefore, to limit the Curtailment Threshold on these market flows to 5% could result in a Reliability Coordinator's inability to obtain the amount of relief that is needed to prevent the Flowgate from exceeding its operating limits.

Below is an example of how a market flow curtailment threshold of less than 5% could substantially contribute to congestion on a Flowgate:

Example:

- Energy market flows of 1,000 MW impact Flowgate A by 4% — or 40 MW
- Flowgate A operating limit is 100 MW
- Fully 40% of the flow across Flowgate A is not identified and represented in the IDC, and therefore not available for curtailment under the TLR process.

⁵ See *footnote 1*. The RTO shall conduct sensitivity studies to determine which external Flowgates (outside the RTO's footprint) are significantly impacted by the market flows of the RTO's control zones (currently the control areas that exist today in the IDC). The RTO shall perform the 4 studies (described in the MISO/PJM “Managing Congestion to Address Seams” Whitepaper Version 3.2) to determine which external Flowgates the RTO will monitor and help control. An external Flowgate selected by one of these studies will be considered a coordinated Flowgate (CF).

Current Operating Reliability

There are no reliability implications from this regional difference.

Section B

Southwest Power Pool (SPP) – Enhanced Congestion Management Method (Curtailment/Reload/Reallocation)

The SPP regional difference, which is equivalent to the PJM/MISO waiver, shall apply within the SPP region as follows:

This regional difference impacts actions on behalf of those SPP Balancing Authorities that are participating in the SPP market. This regional difference does not impact those Balancing Authorities for which SPP will continue to act as the Reliability Coordinator but that are not participating in the SPP market.

SPP shall calculate the impacts of SPP market flow on all facilities included in SPP's Coordinated Flowgate List. SPP shall conduct sensitivity studies to determine which external flowgates (outside SPP's footprint) are significantly impacted by the market flows of SPP's control zones (currently the balancing areas that exist today in the IDC). SPP shall perform studies to determine which external flowgates SPP will monitor and help control. An external flowgate selected by one of the studies will be considered a Coordinated Flowgate (CF).

In its calculation, SPP shall consider market flow impacts as the impacts of energy dispatched by the SPP market and self-dispatched energy serving load in the market footprint, but not tagged. SPP shall use a method equivalent to the PJM/MISO Market Flow Calculation methodology identified in the PJM/MISO regional difference. Impacts of tagged transactions representing delivery of energy not dispatched by the SPP market and energy dispatched by the market but delivered outside the footprint will not be included in market flow.

SPP shall separate the market flow impacts for current hour and next hour into their appropriate priorities and shall provide those market flow impacts to the IDC. The market flows will be represented in the IDC and made available for curtailment under the appropriate TLR Levels. The market flow impacts will not be represented by conventional interchange transaction tags.

The SPP method will impact the following sections of the TLR Procedure:

Network and Native Load (NNL) Calculations — The SPP regional difference modifies section A of this appendix for the SPP region.

Section A of this appendix requires that the “Per Generator Method without Counter Flow” methodology be utilized to calculate the portion of parallel flows on any Constrained Facility due to Network Integration (NI) transmission service and service to Native Load (NL) of each balancing authority.

SPP shall use a “Market Flow Calculation” methodology to calculate the portion of parallel flows on all facilities included in the RTO's “Coordinated Flowgate List” due to NI service or service to NL of each balancing authority.

The Market Flow Calculation differs from the Per Generator Method in the following ways:

- The contribution from all market area generators will be taken into account.
- In the Per Generator Method, only generators having a GLDF greater than 5% are included in the calculation. Additionally, generators are included only when the sum of the maximum generating capacity at a bus is greater than 20 MW. The market flow calculations will use all positively impacting flows down to 0% with no threshold. Counter flows will not be included in the market flow calculation.
- The contribution of all market area generators is based on the present output level of each individual unit.
- The contribution of the market area load is based on the present demand at each individual bus.

By expanding on the Per Generator Method, the market flow calculation evolves into a methodology very similar to the “Per Generator Method” method, while providing increased Interchange Distribution Calculator (IDC) granularity. Counter flows are also calculated and tracked in order to account for and recognize that either the positive market flows may be reduced or counter flows may be increased to provide appropriate relief on a flowgate.

These NNL values will be provided to the IDC to be included and represented with the calculated NNL values of other Balancing Authorities for the purposes of identifying and obtaining required NNL relief across a flowgate in congestion under a TLR Level 5A/5B.

Pro Rata Curtailment of Non-Firm Market Flow Impacts — The SPP regional difference modifies Section A for the SPP region.

Appendix C “Transaction Curtailment Formula” of this document details the formula used to apply a weighted impact to each non-firm tagged Interchange Transaction (Priorities 1 thru 6) for the purposes of Curtailment by the IDC. For the purpose of Curtailment, the non-firm market flow impacts (Priorities 2 and 6) submitted to the IDC by SPP should be curtailed pro-rata as is done for Interchange Transaction using firm transmission service. This is because several of the values needed to assign a weighted impact using the process listed in Appendix C will not be available:

- Distribution Factor (no tag to calculate this value from)
- Impact on Interface value (cannot be calculated without Distribution Factor)
- Impact Weighting Factor (cannot be calculated without Distribution Factor)
- Weighted Maximum Interface Reduction (cannot be calculated without Distribution Factor)
- Interface Reduction (cannot be calculated without Distribution Factor)
- Transaction Reduction (cannot be calculated without Distribution Factor)

While the non-firm market flow impacts submitted to the IDC are to be curtailed pro rata, the impacting non-firm tagged Interchange Transactions could still use the existing processes to assign the weighted impact value.

Assignment of Sub-Priorities — The SPP regional difference modifies NERC’s Attachment 1-IRO-006-1 Appendix E “How the IDC Handles Reallocation”, Section E2 “Timing Requirements”, for the SPP region and requirements 3.3 and 3.6 of this business practice standard.

Under the header “IDC Calculations and Reporting” in Section E2 of NERC Appendix E to Attachment 1-IRO-006-1, the following requirement exists: “In a TLR Level 3a the Interchange Transactions using Non-firm Transmission Service in a given priority will be further divided into four sub-priorities, based on current schedule, current active schedule (identified by the submittal of a tag ADJUST message), next-hour schedule, and tag status. Solely for the purpose of identifying which Interchange Transactions to be loaded under a TLR 3a, various MW levels of an Interchange Transaction may be in different sub-priorities. The sub-priorities are shown in the following table:

Priority	Purpose	Explanation and Conditions
S1	To allow a flowing Interchange Transaction to maintain or reduce its current MW amount in accordance with its energy profile.	The MW amount is the lowest between currently flowing MW amount and the next-hour schedule. The currently flowing MW amount is determined by the e-tag ENERGY PROFILE and ADJUST tables. If the calculated amount is negative, zero is used instead.
S2	To allow a flowing Interchange Transaction that has been curtailed or halted by TLR to reload to the <i>lesser</i> of its current-hour MW amount or next-hour schedule in accordance with its energy profile.	The Interchange Transaction MW amount used is determined through the e-tag ENERGY PROFILE and ADJUST tables. If the calculated amount is negative, zero is used instead.
S3	To allow a flowing Transaction to increase from its current-hour schedule to its next-hour schedule in accordance with its energy profile.	The MW amounts used in this sub-priority is determined by the e-tag ENERGY PROFILE table. If the calculated amount is negative, zero is used instead.
S4	To allow a Transaction that had never started and was submitted to the Tag Authority after the TLR (level 2 or higher) has been declared to begin flowing (i.e., the Interchange Transaction never had an active MW and was submitted to the IDC <i>after</i> the first TLR Action of the TLR Event had been declared.)	The Transaction would not be allowed to start until all other Interchange Transactions submitted prior to the TLR with the same priority have been (re)loaded. The MW amount used in this sub-priority is the next-hour schedule determined by the e-tag ENERGY PROFILE table.

SPP shall use a “Market Flow Calculation” methodology to calculate the amount of energy flowing across all facilities included in the RTO’s “Coordinated Flowgate List” that is associated with the operation of the SPP market. This energy is identified as “market flow.”

These market flow impacts for current hour and next hour will be separated into their appropriate priorities and provided to the IDC by SPP. The market flows will then be represented and made available for curtailment under the appropriate TLR Levels.

Even though these market flow impacts (separated into appropriate priorities) will not be represented by conventional “tags,” the impacts and their desired levels will still be provided to the IDC for current hour and next hour. Therefore, for the purposes of reallocation, a sub-priority (S1 thru S4) should be assigned to these market flow impacts by the NERC IDC as follows, using comparable logic as would be used if the impacts were in fact tagged transactions.

Priority	Purpose	Explanation and Conditions
S1	To allow existing market flow to maintain or reduce its current MW amount.	The currently flowing MW amount is the amount of market flow existing after the RTO has recognized the constraint for which TLR has been called. If the calculated amount is negative, zero is used instead.
S2	To allow market flow that has been curtailed or halted by TLR to reload to its desired amount for the current-hour.	This is the difference between the current hour unconstrained market flow and the current market flow. If the current-hour unconstrained market flow is not available, the IDC will use the most recent market flow since the TLR was first issued or, if not available, the market flow at the time the TLR was first issued.
S3	To allow a market flow to increase to its next-hour desired amount.	This is the difference between the next hour and current hour unconstrained market flow.

Standards of Conduct for Electric Transmission Providers

Definition of Terms

009-0 RESERVED

Business Practice Requirements

009-1 RESERVED

009-2 RESERVED

009-3 RESERVED

009-4 RESERVED

009-5 RESERVED

009-6 RESERVED

Contracts Related Standards

010-1 FUNDS TRANSFER AGENT AGREEMENT (FTAA)

The WEQ FTAA is available separately from the NAESB office.



Gas / Electric Coordination

Introduction

Definition of Terms

- 011-0.1** **Power Plant Operator (PPO)** - is the term used to describe the entity(ies) that has responsibility for gas requirements for a natural gas-fired electric generating facility(ies) and is responsible for coordinating natural gas deliveries with the appropriate Transportation Service Provider(s) (TSP) to meet those requirements. The PPO performs a number of coordinated activities, including, but not limited to, power plant operations, unit dispatch, natural gas procurement and/or gas transportation arrangements. Because each PPO is structured differently, specific responsibilities within each PPO should be determined by the PPO and the point of contact for the PPO should be communicated to the TSP(s). This definition applies to NAESB WEQ Standard Nos. WEQ-011-0.2, WEQ-011-1.1, WEQ-011-1.2, WEQ-011-1.3, WEQ-011-1.4, WEQ-011-1.5, and WEQ-011-1.6 and NAESB WGQ Standard Nos. 0.2.2, 0.3.11, 0.3.12, 0.3.13, 0.3.14, and 0.3.15.
- 011-0.2** **Power Plant Operator’s Facility** - is the term used to describe the natural gas-fired electric generating unit(s) under the direct control of the Power Plant Operator. This definition applies to NAESB WEQ Standard Nos. WEQ-011-1.2 and WEQ-011-1.3 and NAESB WGQ Standard Nos. 0.3.12 and 0.3.13.
- 011-0.3** **Balancing Authority (BA)** - is the term used by the Wholesale Electric Quadrant to describe the entity responsible for integrating electric resource plans ahead of time, for maintaining electric load-interchange-generation balance within its metered boundaries, and for supporting electric interconnection frequency in real time. In certain circumstances, a BA may be a Regional Transmission Organization or Independent System Operator. This definition applies to NAESB WEQ Standard Nos. WEQ-011-1.5 and WEQ-011-1.6 and NAESB WGQ Standard No. 0.3.15.

Business Practice Requirements

- 011-1.1** The Transportation Service Provider (TSP) / Power Plant Operator (PPO) communication standards set forth in NAESB WEQ Standard Nos. WEQ-011-0.1, WEQ-011-0.2, WEQ-011-0.3, WEQ-011-1.1, WEQ-011-1.2, WEQ-011-1.3, WEQ-011-1.4, WEQ-011-1.5, and WEQ-011-1.6 and NAESB WGQ Standard Nos. 0.2.1, 0.2.2, 0.2.3, 0.3.11, 0.3.12, 0.3.13, 0.3.14, and 0.3.15 do not convey any rights or services beyond or in addition to those contained in the TSP’s tariff and/or general terms and conditions and/or do not impose any obligations that would otherwise be inconsistent with the requirements of applicable regulatory authorities, including affiliate code of conduct requirements. These communication standards should be used in addition to the NAESB WGQ standard nomination timeline and scheduling processes for the TSP’s contract / tariff services. In the event of a conflict between any of these communication

standards and the TSP's tariff or general terms and conditions, the latter will prevail.

011-1.2 The Power Plant Operator (PPO) and the Transportation Service Provider(s) (TSP) that is directly connected to the PPO's Facility(ies) should establish procedures to communicate material changes in circumstances that may impact hourly flow rates. The PPO should provide projected hourly flow rates as established in the TSP's and PPO's communication procedures.

011-1.3 Subject to the conditions of NAESB WEQ Standard No. WEQ-011-1.1 and NAESB WGQ Standard No. 0.3.11, this standard applies to a Power Plant Operator (PPO) and the Transportation Service Provider (TSP) to whose system the PPO facility(ies) is directly connected or with whom the PPO is a Service Requester.

A PPO should not operate without an approved scheduled quantity pursuant to the NAESB WGQ standard nomination timeline and scheduling processes or as permitted by the TSP's tariff and/or general terms and conditions, and/or contract provisions. However, if the PPO reasonably determines that it has circumstances requiring the need to request gas scheduling changes outside of the above-referenced nomination and scheduling processes and the affected TSP(s) supports the processing of such changes, the PPO should provide its requested daily and hourly flow rates to the TSP(s) (1) as established in the TSP's and PPO's communication procedures pursuant to NAESB WEQ Standard No. WEQ-011-1.2 and NAESB WGQ Standard No. 0.3.12 and/or (2) as specified in the TSP's(s') tariff or general terms and conditions.

Based upon whether or not the PPO's request can be accommodated in accordance with the appropriate application of the affected TSP's(s') tariff requirements, contract provisions, business practices, or other similar provisions, and without adversely impacting other scheduled services, anticipated flows, no-notice services, firm contract requirements and/or general system operations, the PPO and all of the affected TSPs should work together to resolve the PPO's request.

Where the affected TSP determines that it is feasible to provide the PPO with changes in flow rates without additional communications, no additional communications are required. These procedures will govern such communications unless the applicable parties mutually agree to create alternative communication procedures.

011-1.4 The Regional Transmission Organizations, Independent System Operators, independent transmission operators, and/or Power Plant Operators should sign up to receive operational flow orders and other critical notices from the appropriate gas Transportation Service Provider(s), pursuant to NAESB WGQ Standard Nos. 5.2.2, 5.3.35, and 5.3.37, unless the party(ies) needing the information has arranged to receive it through an alternative communication process(es).

011-1.5 Unless otherwise prohibited by agreement, tariff, or protocol rules, a Power Plant Operator should, upon request, provide pertinent information concerning the service level (i.e., firm or interruptible) of its procured gas transportation and the performance obligation (i.e., firm (fixed or variable quantity) or interruptible) of its procured gas supply to the appropriate independent Balancing Authority and/or Reliability Coordinator.

011-1.6 Regional Transmission Organizations, Independent System Operators, other independent transmission operators, independent Balancing Authorities and/or Regional Reliability Coordinators should establish written operational communication procedures with the appropriate gas Transportation Service Provider(s) and/or Power Plant Operator(s). These procedures should be implemented when an extreme condition could occur, as defined in such procedures.

These procedures will govern unless the applicable parties in the gas and electric industry mutually agree to create alternative written communication procedures that are more appropriate and meet the parties' collective regional operational needs.

Training on and testing of such communication procedures should occur periodically.

Public Key Infrastructure (PKI)

Recommended Standard

The North American Energy Standards Board (NAESB) Wholesale Electric Quadrant (WEQ) has developed these standards to establish a secure public key infrastructure (PKI). Nothing in these standards would preclude it from being adopted by other energy industry quadrants as appropriate. These standards describe the requirements that Certification Authorities (CA) must meet in order to claim the electronic Certificates issued by that CA meets the NAESB WEQ PKI Standards. This document also describes the minimum physical characteristics that a Certificate must meet in order to achieve compliance with the NAESB WEQ PKI Standards.

A trusted network of Certification Authorities is one of the key ingredients needed for secure Internet data transfers. NAESB WEQ provides assurance to Energy Industry Participants that an Authorized Certification Authority complies with the minimum set of requirements described in this standards recommendation through the NAESB Certification Program. This is necessary in order to provide for a minimum level of security for the exchange of data across the public Internet. Examples include the exchange of e-Tag data, OASIS data, Electric Industry Data Exchange (EIDE), etc. Certification Authorities that comply with all provisions of the NAESB WEQ PKI Standards are termed Authorized Certification Authorities. Other capabilities, which are not addressed by these standards, such as reliable message delivery standards, may also be needed and will be specified in separate standard(s).

In addition to the Certification Authority and Certificate provisions of these standards, end entities that wish to use the public key infrastructure established by these standards must attest to their understanding of and compliance with their Authorized Certification Authority's Certificate Policy or Certification Practice Statements, and agree to be bound to electronic transactions entered into by the end entity using a valid Certificate issued in the name of the end entity.

The standards described in this document achieve the level of security commonly used by other industries engaged in commercial activity across the public Internet.

Within this document the words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, “OPTIONAL” are to be interpreted as in RFC 2119.

Certification

Certification Authorities must comply with the provisions of the NAESB WEQ PKI Standards and conform to the NAESB Certification Program to be considered an Authorized Certification Authority. Upon achieving NAESB certification, NAESB will provide the North American Electric Reliability Corporation (NERC) with the names of authorized CAs. The CA will immediately be authorized to display the NAESB certification mark and will be authorized to claim compliance with NAESB WEQ [Electronic Certificate] PKI Standards. All Industry applications (e.g., OASIS) secured under these PKI Standards must permit access to any legitimate user that presents a valid electronic certificate issued by an Authorized Certification Authority.

NAESB may rescind an Authorized CA's certification, for cause, at any time by providing 30 days notice in writing to the Authorized CA. Authorized CA's that receive a rescission notice from NAESB are required to notify all affected certificate holders within 5 days that their NAESB WEQ PKI certification has been rescinded and their certificates will no longer be valid.

CA's must be recertified by NAESB upon any of the following events:

- Purchase, Sale or Merger of the Authorized CA by/with another entity
- Renewal as required by the NAESB Certification Program

Note that Authorized CAs are obligated to revoke any and all certificates issued as specified in their Certification Policy Statement within 24 hours of any suspected CA private key compromise.

Scope

These standards provide for an infrastructure to secure electronic communications. These standards dictate the obligations of both Authorized Certification Authorities and end entities that will rely on this infrastructure. These standards do not specify how certificates issued by Authorized CAs are to be used to secure specific software applications or electronic transactions. Those standards will be developed under separate NAESB Recommendations.

Commitment to Open Standards

The recommendations contained in this document should align with industry best practices for Public Key Infrastructure as prescribed by the National Institute of Standards and Technology in publication NIST SP 800-32, Internet Engineering Task Force PKI guidelines and standards (e.g. RFC 3280, 3647, 4210, and any successor standards etc.) and other broadly accepted/adopted standards from internationally recognized standards bodies.

To assist Certification Authorities and end entities evaluating/comparing particular Certification Authorities in determining compliance with the provisions in these standards, cross references to the set of provisions outlined in RFC 3647 for Certificate Policies and/or Certification Practice Statements are provided in parenthesis for each major section. These RFC cross references are for reference only; they are not to be considered as part of the NAESB WEQ PKI Standards.

NAESB's long-standing support for open standards has served to create a competitive marketplace of interoperable E-commerce products to serve the energy industry. As with other NAESB standards initiatives, these standards are being developed to ensure the availability of interoperable PKI products from multiple vendors. NAESB encourages Certification Authorities to pursue certification under these standards to meet the energy industry's needs for PKI.

Definition of Terms

For the purposes of these standards, the following definitions apply:

- 012-0.1** **Applicant** – An authorized individual of a registered end entity that may submit applications for issuance of certificates to an Authorized Certification Authority for the end entity.
- 012-0.2** **Authorized Certification Authority (Authorized CA)** - A Certification Authority that complies with the NAESB WEQ PKI Standards, has met all terms and conditions and executed all requirements as set forth by the NAESB Certification Program for the NAESB WEQ PKI Standards, and is registered in the Registry.
- 012-0.3** **Certificate** – A digital document that typically includes the public key, information about the identity of the party holding the corresponding private key, the operational periods of the certificate, and the Issuing CA's own digital signature.
- 012-0.4** **Certificate Policy (CP)** - A named set of rules that indicates the applicability of a certificate to a particular community and/or class of application with common security requirements. For example, a particular certificate policy might indicate applicability of a type of certificate to the authentication of electronic data interchange transactions for the trading of goods within a given price range.
- 012-0.5** **Certification path** - An ordered sequence of certificates which, together with the public key of the initial object in the path, can be processed to obtain that of the final object in the path.
- 012-0.6** **Certification Practice Statement (CPS)** - A statement of the practices which a certification authority employs in issuing certificates.
- 012-0.7** **Certificate Revocation List (CRL)** – A list of Certificate serial numbers which have been revoked, are no longer valid, and should not be relied upon by any system user.
- 012-0.8** **End Entity** - A registered business entity or other recognized organization to which Certificates are issued by one or more Authorized Certification Authorities.
- 012-0.9** **Issuing Certification Authority (Issuing CA)** - In the context of a particular certificate, the issuing CA is the CA that has digitally signed and issued the certificate to a Subscriber.
- 012-0.10** **Policy qualifier** - Policy-dependent information that accompanies a certificate policy identifier in an X.509 certificate.

- 012-0.11** **Registration Authority (RA)** - An entity that is responsible for identification and authentication of certificate subjects, but that does not sign or issue certificates (i.e., an RA is delegated certain tasks on behalf of a CA).
- 012-0.12** **Relying Party** - A recipient of a certificate who acts in reliance on that certificate and/or digital signatures verified using that certificate. In this document, the terms "certificate user" and "relying party" are used interchangeably.
- 012-0.13** **Repository** – A database of active digital signatures for a CA system. CA's post certificates and CRLs to repositories that allows relying parties to confirm the status of the digital signatures.
- 012-0.14** **Set of provisions** - A collection of practice and/or policy statements, spanning a range of standard topics, for use in expressing a certificate policy definition or CPS employing the approach described in this framework.
- 012-0.15** **Subscriber** – An authorized individual, application, server, or 'role' associated with a registered end entity that has been issued a certificate by an Authorized Certification Authority.

Business Practice Requirements

012-1 **INTRODUCTION (RFC 3647 Section 1)**¹

These NAESB WEQ PKI Standards define the minimum requirements that must be met by Certification Authorities, the electronic Certificates issued by those CAs, and end entities that use those Certificates. The standards is cross referenced with RFC 3647 for Internet X.509 Public Key Infrastructure Certificate Policy and Certification Practices Framework, but do not in themselves represent a Certificate Policy and/or a Certification Practices Statement.

012-1.1 **OVERVIEW (RFC 3647 Section 1.1)**

The standards call for the use of a Public Key Infrastructure (PKI) using X.509 v3 digital certificates to provide for specific security services:

- Confidentiality: The assurance to an entity that no one can read a particular piece of data except the receiver(s) explicitly intended.
- Authentication: The assurance to one entity that another entity is who he/she/it claims to be.
- Integrity: The assurance to an entity that data has not been altered (intentionally or unintentionally) from sender to recipient and from time of transmission to time of receipt.
- Technical Non-Repudiation: A party cannot deny having engaged in the transaction or having sent the electronic message.

¹ RFC 3647, Internet X.509 Public Key Infrastructure Certificate Policy and Certification Practices Framework, Chokhani, S.; Ford, W.; Sabett, R.; Merrill, C.; and Wu, S., RFC Editor, November 2003. (<http://www.ietf.org/rfc/rfc3647.txt>)

The standards requires that digital X.509 v3 certificates be issued to industry participants after a formal registration process has been completed. These Certificates are provided by Authorized Certification Authorities (CAs). The standards call for these Authorized CAs to meet certain minimum criteria and that the Certificates issued to industry participants meet a certain minimum criteria in order to ensure that the participant's identity is tied to the Certificate and has been verified by the CA. The issuing CA must meet the provisions in these standards in order for the Certificate to be considered compliant with NAESB standards.

012-1.2 IDENTIFICATION (RFC 3647 Section 1.2)

The NAESB WEQ defines the requirements for identification, issuance and use of Authorized CA certificates by unique numeric classes. These defined classes meet specific industry needs for securing software applications and associated transactions. All certificates issued under these standards shall be in X.509 v3 format.

Each class of Certificates has different requirements with respect to privacy of key pairs, applicant identification proofing, etc., as stipulated within these standards. Higher numbered classes correspond with more stringent certificate requirements. Certification Authorities must meet ALL requirements for a given class of Certificates to be authorized to issue Certificates identified as complying with the requirements for that class.

The NAESB WEQ PKI Standards defines the following Certificate class:

- Class 2 - SSL Authentication Certificates

Authorized CAs issuing Class 2 Certificates certify that each Class 2 certificate is capable of establishing a Secure Sockets Layer (SSL) secured communications session as either client or server using common commercially available software.

012-1.2.1 Certificate Class Identification

Certification Authorities shall provide a unique ASN.1 object identifier within the Certificate Policy Extension, or a unique certification path for each class of certificates issued under these standards as part of the CAs application to NAESB to be an Authorized Certification Authority. This object identifier or certification path shall be associated with the Certificate Policy and/or Certification Practices Statement underwhich the certificate was issued and that Certificate Policy and/or Certification Practices Statement shall meet or exceed the provisions called for in these standards.

If the Authorized CA complies with the requirements associated with more than one class of certificates, but does not or cannot uniquely identify through the Certificate Policy Extension or certification path as to which class an issued Certificate applies, the CA shall be limited to only asserting that it complies with the least stringent class of certificate provisions called for in the NAESB standards.

012-1.2.2 Certificate Class Hierarchy

Each higher class (by number) of certificates defined in these standards shall be required to meet or exceed all the requirements of all lower class certificates. Relying parties must accept any equal or higher class Certificate as valid when presented for use in a given context. For example, any application using the WEQ PKI and requiring a Class 2 Certificate shall be required to accept both Class 2 and Class 3 (when defined) Certificates as valid for use in securing that application.

012-1.3 COMMUNITY AND APPLICABILITY (RFC 3647 Section 1.3)

012-1.3.1 Certification Authorities (RFC 3647 Section 1.3.1)

Certification Authorities shall be required to comply with all the Terms and Conditions of the NAESB Certification Program adopted for the NAESB WEQ PKI Standards to be considered an Authorized Certification Authority. Upon execution and acceptance by NAESB, each Authorized Certification Authority shall be identified in the NERC Registry as being compliant with these standards. Relying parties shall be obligated to recognize and accept valid Certificates issued by any Authorized Certification Authorities in the name of an end entity that has also registered that Authorized CA as the end entity's Authorized CA.

012-1.3.2 Registration Authorities (RFC 3647 Section 1.3.2)

Certification Authorities may delegate certain responsibilities under their Certificate Policy and/or Certification Practice Statement to one or more Registration Authorities (RA). The CA shall insure that any responsibilities delegated to an RA are performed by that RA in compliance with these standards.

012-1.3.3 End Entities (RFC 3647 Section 1.3.3)

End entities participating in the WEQ PKI shall be required to be registered in the NERC Registry and furnish proof that they are an entity authorized to engage in the wholesale electricity market. Entities or organizations that may require access to applications secured under the NAESB WEQ PKI Standards, but do not qualify as a wholesale electricity market participant (e.g., regulatory agencies, universities, consulting firms, etc.) must register under the sponsorship of a qualified wholesale electricity market participant as an Unaffiliated Entity.

Registered end entities and the user community they represent shall be required to agree to all end entity obligations as established in these standards.

012-1.3.4 Applicability (RFC 3647 Section 1.4)

Certificates issued under the NAESB PKI may be used in, but not be limited to, the following suitable applications:

- Energy market transactions
- Energy or transmission scheduling
- Filings with government agencies
- Filings with law enforcement agencies
- Application filing processes, such as applying for or requesting access to physical facilities
- Financial transactions within the energy markets' communities
- Billing, metering, and invoicing
- Conveyance and transfer of operational data
- Conveyance and transfer of system reliability data

Certificates issued under the WEQ PKI shall never be used for performing any of the following functions:

- Any transaction or data transfer that may result in imprisonment if compromised or falsified.
- Any transaction or data transfer deemed illegal under federal law

012-1.4 OBLIGATIONS (RFC 3647 Section 9.6)

012-1.4.1 CA Obligations (RFC 3647 Section 9.6.1)

Authorized CAs are obligated to conduct all actions associated with the provision of CA services in accordance with these standards, specifically, but not limited to, the certificate application process, Subscriber identity-proofing, certificate issuance, and certificate revocation. To the extent any required actions are delegated by the Authorized CA to another party (e.g., Subscriber identity-proofing delegated to a Registration Authority), the CA shall remain obligated to ensure that all requirements of these standards are met by all parties.

Each Authorized CA shall implement and maintain a continuous Customer Service Center to provide assistance and services to Subscribers and relying parties, and a system for receiving, recording, responding to, and reporting certificate problems within its customers.

012-1.4.2 RA Obligations (RFC 3647 Section 9.6.2)

The Registration Authority shall be obligated to meet all applicable provisions of these standards in the performance of its responsibilities delegated to it by an Authorized CA.

012-1.4.3 End Entity/Subscriber Obligations (RFC 3647 Section 9.6.3)

Each end entity organization shall acknowledge their understanding of the following obligations to the WEQ PKI through their Authorized CA.

- A. End entity recognizes and acknowledges the electric industry's need for secure private electronic communications meeting the goals of:
 - Privacy: The assurance to an entity that no one can read a particular piece of data except the receiver(s) explicitly intended;
 - Authentication: The assurance to one entity that another entity is who he/she/it claims to be;
 - Integrity: The assurance to an entity that data has not been altered (intentionally or unintentionally) between “there” and “here,” or between “then” and “now”; and
 - Non-Repudiation: A party cannot deny having engaged in the transaction or having sent the electronic message.
- B. End entity recognizes the Industry's endorsement of Public Key cryptography which utilizes Public Key certificates to bind a person's or computer system's public key to its entity and to support symmetric encryption key exchange.
- C. End entity has reviewed these standards with respect to industry guidelines for establishing a trusted Public Key Infrastructure (“PKI”).
- D. End entity has evaluated each of its selected Certification Authority's Certification Practices Statement in light of those industry standards as identified by the Certification Authority.

End entities shall be obligated to register their legal business identification and secure an industry recognized “Entity Code” that will be published in the NERC Registry and used in all Subscriber applications submitted by, and certificates issued to, that end entity.

Entities shall also be required to identify, through the NERC Registry, the specific Authorized CAs they have selected to use as their Authorized Certification Authority(ies) and acknowledge the following accompanying obligations:

- End entity has executed all agreements and contracts with the registered Authorized Certificate Authority(ies) as required by the Certificate Authority's(ies) Certification Practices Statement necessary for the Certificate Authority(ies) to issue certificates to the end entity for use in securing electronic communications.
- End entity complies with all obligations required and stipulated by the Authorized Certificate Authority in their Certification Practices Agreement, e.g., Certificate Application Procedures, Applicant Identity Proofing/Verification, and Certificate Management Practices.

- End entity affirms the establishment of a PKI Certificate Management Program, has trained all affected employees in that program, and established controls to ensure compliance with that program. This program shall include, but is not limited to:
 - Certificate issuance policy(ies)
 - Certificate private key security and handling policy(ies)
 - Certificate revocation policy(ies)
- End entity correctly represents the type of Subscriber (I.e., individual, role, device or application) and represents that all information provided in each certificate request is complete and accurate.
- End entity acknowledges that it is bound by all rights and obligations, financial or otherwise, for any and all electronic transactions entered into between the end entity and the relying party that are verified and traceable as having been executed with the use of a valid certificate issued to the end entity by any of the end entity's registered Certificate Authorities and accepted by the relying party with the use of a valid certificate issued to the relying party by any of the relying party's registered Certificate Authorities.

By registering an Authorized CA, the end entity is acknowledging that they are aware of and agree to all end entity/Subscriber and relying party obligations called out in these standards.

End entities shall promptly remove registered Authorized Certification Authority information immediately on cessation of using that Authorized Certification Authority's services under these standards.

012-1.4.4

Relying Party Obligations (RFC 3647 Section 9.6.4)

Relying parties are subject to all obligations set forth as any other end entity/Subscriber under these standards. Relying parties are further obligated to perform all of the following actions prior to relying on information contained in a certificate traceable to an end entity as authentication of the identity of that end entity, and therefore being afforded any protections under these standards obligating that end entity in an electronic transaction:

- the end entity certificate is valid and has not been revoked;
- the entire certificate validation/trust chain to the end entity's registered Authorized CA's root certification authority is intact and valid;
- the end entity certificate validity has been checked against the appropriate Certificate Revocation Lists (CRLs) and those lists have not expired;
- if applicable, the end entity certificate was issued under the Authorized CA's registered Certificate Policy identifier for the class of certificate required by the transaction
- the end entity certificate presented in the transaction corresponds to a duly registered user account recognized by the relying party and;
- the user account associated with the end entity certificate presented is authorized to perform the requested transaction.

012-1.4.5 Repository Obligations (RFC 3647 Section 9.6.5)

Each Authorized CA shall provide for an open, accessible repository containing information on each certificate issued in accordance with these standards. The CA shall also ensure that an up-to-date Certificate Revocation List (CRL) is made available within the publication requirements of these standards.

The NERC Registry shall be the Industry repository for identification of Authorized Certification Authorities, end entities, and each end entity's selected Certification Authority(ies) service provider(s). The Registry administrator shall insure that controls are implemented such that Authorized CA and end entity registration information related to these standards can be verified as being authentic and protected from unauthorized modification or tampering.

012-1.5 FEES (RFC 3647 Section 9.1)

A NAESB WEQ Authorized CA may impose a reasonable fee for the following:

- issuance or renewal of certificates.
- other services (e.g., key archive, key replacement).

A NAESB WEQ Authorized CA shall not impose a fee for the following:

- revocation of certificates.
- certificate access fees with respect to use of a Subscriber's own certificate(s) or the status of such certificate(s).
- access to an Authorized CA's published CRL.

012-1.6 PUBLICATION AND REPOSITORY (RFC 3647 Section 2.)

Each Authorized CA shall operate a secure online Repository available to Subscribers and relying parties that must contain

- all PKI certificates issued by the Authorized CA that have been accepted by the Subscriber
- a valid CRL
- the Authorized CA's certificate (for its public key)
- current versions of the Authorized CA's CP and/or CPS.

All information to be published in the Repository shall be published promptly after such information is available to the Authorized CA (within 24 hours).

The Authorized CA shall not impose any access controls restricting access to the public key(s) used to implement CA services, CRLs, and CP and/or CPS.

012-1.6.1 Industry Repositories

NAESB shall assume responsibility for providing NERC with a list of Authorized CAs. NERC shall assume responsibility for maintaining the current list of Authorized CAs and all associated information defined by the Industry as necessary to implement the NAESB WEQ PKI for securing electronic transactions conducted in accordance with NAESB Standards.

012-1.7 CONFIDENTIALITY (RFC 3647 Section 9.3, 9.4)

The following types of information shall be kept confidential:

- **Subscriber Information.** The Authorized CA, or designated RA, shall protect the confidentiality of personal information regarding Subscribers that is collected during the applicant registration, application, authentication, and certificate status checking processes in accordance with the *Privacy Act of 1974 and Amendments*². Such information shall be used only for the purpose of providing Authorized CA Services and shall not be disclosed in any manner to any person without the prior consent of the Subscriber, unless otherwise required by law, except as may be necessary for the performance of the Authorized CA services. In addition, personal information submitted by Subscribers:
 - Must be made available by the Authorized CA to the Subscriber involved following an appropriate request by such Subscriber
 - Must be subject to correction and/or reasonable and appropriate revision by such Subscriber
 - Must be protected by the Authorized CA in a manner designed to ensure the data's integrity and confidentiality
 - Cannot be used or disclosed by the Authorized CA for purposes other than the direct operational support of WEQ PKI unless such use is authorized by the Subscriber involved or is required by law, including judicial process
- **Other Subscriber Information.** The Authorized CA shall take reasonable steps to protect the confidentiality of relying parties or other Subscriber information provided to the Authorized CA.

Subscriber private key backup or key archive programs are permitted for recovering the private keys of NAESB PKI Class 2 certificates issued for encryption. See Section 7 for a complete certificate profile.

012-1.8 INTELLECTUAL PROPERTY RIGHTS (RFC 3647 Section 9.5)

Private keys for Class 2 certificates shall be treated as the sole property of the end entity identified in the certificate.

² *Privacy Act of 1974 and Amendments* (as of January 2, 1991), 5 U.S.C. Sec. 552.a, Title 5, Part 1, Chap. 5, Subchapter II.

012-1.9 INITIAL REGISTRATION (RFC 3647 Section 3.)

Certificates may be applied for and issued under these standards for the following types of Subscribers:

- Individual Subscriber – certificates issued and used by a single named individual
- Role - certificates issued in the name of a “role” performed by the end entity organization, typically at a fixed physical location, but whose use is shared by multiple individuals, e.g., system control center shift personnel
- Device – certificate issued and used in the operation of a physical computer system(s), e.g., web server(s)
- Application – certificates issued and used by a software application

An Authorized CA is not required to support the application and issuance of all these certificate types, but the Authorized CA shall be required to disclose to any end entity those specific certificate types they do support.

012-1.9.1 Types of names (RFC 3647 Section 3.1.1)

Names in the *Subject* field shall contain a unique X.500 Distinguished Name (DN) that must be a printable string, must contain some string of characters (not be blank), and must clearly and uniquely identify the official company name of the Subscriber's Organization and the Entity Code of the Subscriber's Organization as they appear in the Registry Domain. The common name should be:

- For individual subscribers: the combination of first name, surname, and an optional middle initial.
- For devices and applications (e.g., Web Servers) the common name should be the fully qualified domain name of the device/application.
- For a role-based certificate the authenticated common name should be descriptive of the role under which the certificate will be used, e.g., Scheduling Desk.

A certificate issued for a device, application, or role must include the email address of the person who is responsible for that device, application, or role in the *SubjectAltName* field of the certificate.

The Distinguished Name within the certificate's Subject field must also contain the Entity Code of the Organization in the Organizational Unit (OU) field and the official company name of the Organization in the Organization (O) field.

012-1.9.2 Uniqueness of names (RFC 3647 Section 3.1.5)

Name uniqueness across all certificates must be enforced and each Authorized CA shall enforce name uniqueness within the DNs of the X.500 name space that it has been authorized. A DN includes all fields in the certificate *Issuer* and *Subject* fields.

012-1.9.3 Method to prove possession of private key (RFC 3647 Section 3.2.1)

The Authorized CA shall verify that the applying end entity/Subscriber (to include role-based certificate applications) possesses the private key corresponding to the public key submitted with the application by using a key transfer protocol or equivalent method, and that these keys form a functioning pair.

012-1.9.4 Authentication of organization identity (RFC 3647 Section 3.2.2)

The Authorized CA shall verify that the entity exists, is registered with a unique Entity Code in the NERC Registry, and conducts business at the address listed in the certificate application.

In conducting its review and investigation, the Authorized CA shall validate information concerning the entity to establish its authenticity, including legal company or business name, type of entity place of incorporation or principal registration, principal business address (including number and street, city, ZIP code), and principal business telephone number. The Authorized CA may rely on the Registry to verify the business credentials (e.g., Entity Code, Business Code) of the Organization.

If the Organization had previously established the identity of the entity organization using a process that satisfies the Authorized CA and there have been no changes in the information presented, then the Authorized CA and the prospective Subscriber may use private shared information to verify the identity of the Organization.

012-1.9.5 Authentication of individual identity (RFC 3647 Section 3.2.3)

The Authorized CA, or designated RA, shall verify all of the following identification information supplied by the applicant: subscriber's first name, middle initial, and last name; current employment and role at end entity, and legitimate need for digital certificate.

Subscriber identification must be confirmed by the Authorized CA, or its designated RA, and use an identity-proofing process that incorporates the following factors:

- Submission by the subscriber of at least three individual identity items, which must be verified through reference to multiple independent data sources along with crosschecks for consistency. Examples follow:
 - Government-issued identification (ID)
 - United States Alien Registration Number or similar Canadian or Mexican identification
 - Passport number and country
 - Current employer name, address (number and street, city, postal code), and principal telephone number
 - Currently valid state-issued driver's license number or state-issued identification card number
 - Social Security Number, or similar Canadian or other national identification

- Follow-up with the Subscriber's Organization to confirm the accuracy of the information presented

If the applicant is requesting a certificate for an individual subscriber other than themselves, the Authorized CA shall be required to have an executed contract with the applicant and the end entity of the individual subscriber authorizing such action.

If the applicant is requesting a certificate for a device, application, or role-based certificate, the Authorized CA shall verify the following information:

- The applicant is a duly authorized representative of the Organization as an employee, partner, member, agent, or other association.
- The Organization's identity as specified in Section 3.1.8.

012-1.10 ROUTINE REKEY (RFC 3647 Section 3.3, 4.6, 4.7)

A Subscriber must periodically obtain new keys and reestablish its identity. Rekeying a certificate means a new certificate is created that is identical to the old one, except that the new certificate has a new and different public key (corresponding to a new and different private key), a different serial number, and a different validity period. All certificates shall be rekeyed when they are renewed.

The Authorized CA shall accept certificate renewal requests from Subscribers within 90 days from the scheduled end of the operational period (expiration date) of the certificate, provided the certificate is not currently revoked. Individual subscriber or 'role-based' certificates shall be renewed not to exceed a 2-year increment. Device, or application certificates shall be renewed not to exceed a 3-year increment.

012-1.11 CERTIFICATE APPLICATION (RFC 3647 Section 4.1, 4.2)

The Authorized CA must perform the following steps when an applicant applies for a certificate:

- Establish and record identity of an applicant.
- Obtain a signed request file, including the matching public key, for each certificate required.
- Establish that the public key forms a functioning key pair with the private key held by the applicant.
- Provide a point of contact for verification of any roles or authorizations requested.

These steps may be performed in any order that is convenient for the Authorized CA, and does not defeat security, but all steps must be completed prior to certificate issuance. All communications among Authorized CA and applicant supporting the certificate application and issuance process shall be authenticated and protected from modification. Any electronic transmission of shared secrets shall be protected (e.g., encrypted) using means commensurate with the requirements of the data to be protected by the certificates being issued.

012-1.12 CERTIFICATE ISSUANCE (RFC 3647 Section 4.3)

Upon successful completion of the Subscriber identification and authentication process the Authorized CA shall create the requested certificate, notify the applicant thereof, and make the certificate available to the applicant. Upon issuance of a certificate, the Authorized CA shall warrant that:

- The Authorized CA has issued, and will manage, the certificate in accordance with the NAESB WEQ PKI Standards.
- The Authorized CA has complied with all requirements in this NAESB WEQ PKI Standards when identifying the Subscriber and issuing the certificate.
- There are no misrepresentations of fact in the certificate actually known to or reasonably knowable by the Authorized CA and the Authorized CA has verified the information in the certificate.
- Information provided by the Subscriber for inclusion in the certificate has been accurately transcribed to the certificate.
- The certificate meets the material requirements of these standards.

012-1.13 CERTIFICATE ACCEPTANCE (RFC 3647 Section 4.4.1, 4.8.5)

The applicant shall indicate acceptance or rejection of the certificate to the Authorized CA. During this acceptance process, the applicant must indicate, through any mechanism the Authorized CA provides, that he/she has read and agreed to the stipulations of these standards. By accepting the certificate, the applicant warrants that all information and representations made regarding the Subscriber that are included in, and relied upon in issuing, the certificate are true and accurate.

012-1.14 CERTIFICATE SUSPENSION AND REVOCATION (RFC 3647 Section 4.9)

The only persons permitted to request revocation of a certificate issued pursuant to these standards are the Subscriber, an authorized representative of the end entity organization, or the issuing Authorized CA. A Subscriber may request revocation of his/her certificate at any time for any reason. An end entity organization may request revocation of an certificate issued to its Subscriber, device, or individual, at any time for any reason. An Authorized CA is responsible for promptly requesting revocation of a certificate under at least the following circumstances:

- If an Authorized CA learns, or reasonably suspects, that the Subscriber's private key has been compromised.
- If the issuing Authorized CA determines that the certificate was not properly issued in accordance with these standards and/or the Authorized CA's certificate CPS.
- The Authorized CA shall revoke the Subscriber's certificate if it is determined that the certificate has been used in a manner that violates this Policy.

012-1.15 CRL ISSUANCE FREQUENCY AND VALIDITY PERIOD (RFC 3647 Section 4.9.7, 4.9.8)

An Authorized CA must ensure that it issues an up-to-date CRL at least every twelve (12) hours. The validity period of an Authorized CAs CRL shall not exceed twenty four (24) hours.

012-1.16 CRL CHECKING REQUIREMENTS (RFC 3647 Section 4.9.10)

An Authorized CA must ensure up-to-date CRL's are continuously available and can be downloaded via the HTTP protocol. Other protocols may be used but are not required.

Relying parties must check for certificate revocation by accessing the Authorized CAs published CRL as part of their obligations under these standards. End entities and Authorized CAs make no assurances as to the authenticity of any certificate that has not been verified against the currently valid published CRL.

012-1.17 SPECIAL REQUIREMENTS FOR KEY COMPROMISE (RFC 3647 Section 4.9.12)

An Authorized CA's CPS must contain provisions outlining the means it will use to provide notice of compromise or suspected compromise of any of its private keys used to sign certificates under these standards. These provisions must provide for the revocation of the Authorized CAs signing certificate(s), and/or all issued Subscriber certificates within 24 hours of suspected compromise.

012-1.18 SECURITY AUDIT PROCEDURES (RFC 3647 Section 5.4)

012-1.18.1 Types of events recorded (RFC 3647 Section 5.4.1)

All significant security events, including those specified in Section 1.19.1, on each Authorized CA's system must be logged. Audit logs for all Authorized CAs should be written in real time to a non-erasable medium or a medium for which erasure, rewrites, and wipes have been fully disabled by system configuration or procedural controls. These logs shall be maintained in sufficient detail for the Authorized CA to use them as an aid in troubleshooting and as an aid in diagnosing system security breaches. Audit trail files are to be maintained in a secure manner in accordance with section 1.19, and shall not be provided to any entity external to the Authorized CA other than law enforcement agencies.

012-1.18.2 Frequency of Log Processing (RFC 3647 Section 5.4.2)

Audit logs must be analyzed at least weekly and in response to specific alerts.

012-1.18.3 Audit Log Retention (RFC 3647 Section 5.4.3)

Audit logs must be maintained online until analyzed and until archived as described below.

012-1.19 RECORDS ARCHIVAL (RFC 3647 Section 5.5)

012-1.19.1 Types of events recorded (RFC 3647 Section 5.5.1)

The data and files archived by or on behalf of each Authorized CA must include:

- All certificate applications, including all application information
- Certificate issuances and transactions
- System start-up and shutdown actions
- Authorized CA application start-up and shutdown actions
- Attempts to create, remove, or set passwords or change the system privileges of the Security Officer, or Administrator
- Changes to Authorized CA details and/or keys
- Changes to certificate creation policies (e.g., validity period)
- Login and logoff attempts
- Unauthorized attempts at network access to the Authorized CA's system
- Unauthorized attempts to access system files
- Generation of own and subordinate entity keys
- Revocation of certificates
- Attempts to initialize, remove, enable, and disable Subscriber activities, and update or recover their keys
- Failed read-and-write operations on the certificate and CRL directory
- Discrepancy and compromise reports

All logs, whether electronic or manual, should contain the date and time of the event and the identity of the entity that caused the event.

An Authorized CA should also collect and consolidate, either electronically or manually, security information, whether or not system or automatically generated, such as:

- Physical access logs
- System configuration changes and maintenance
- Personnel changes
- Discrepancies and compromise reports
- Record of the destruction of media containing key material, activation data, or personal Subscriber information

An Authorized CA must ensure that all logged events are explained in an audit log summary and that audit logs are actively reviewed either manually or automatically on a regular basis. Any responsive or remedial actions taken following these reviews must be documented.

012-1.19.2 Retention period for archive (RFC 3647 Section 5.5.2)

Archives of the recorded events listed in Section 4.6.1 shall be retained and protected against modification, loss, or destruction for a period as specified in the Authorized CA's CPS, but in any event not less than seven years without any loss of data. Applications necessary to read these archives must be maintained for the identical period.

012-1.19.3 Protection of archive (RFC 3647 Section 5.5.3)

The archive media must be protected at least at the level required to maintain and protect all Subscriber information and data from disclosure, modification, or destruction. The media on which the archive is stored must be protected from modification and destruction either by physical security alone, or by a combination of both physical security and cryptographic protection, and must also be provided adequate protection from environmental threats such as temperature, humidity, and magnetism.

012-1.19.4 Archive backup procedures (RFC 3647 Section 5.5.4)

Adequate backup procedures must be in place so that in the event of the loss or destruction of the primary archives, a complete set of backup copies will be readily available within a 48-hour period.

012-1.19.5 Requirements for time-stamping of records (RFC 3647 Section 5.5.5)

Archived data, files, and similar records need not be time-stamped as of their creation or modification, but all logs must contain data indicating the time each logged event occurred.

012-1.19.6 Procedures to obtain and verify archive information (RFC 3647 Section 5.5.7)

Procedures detailing how to create, collect, verify, package, transmit, and store Authorized CA archives shall be published in the Authorized CA's CPS. Only authorized persons shall be permitted to access the archive.

012-1.19.7 Key Changeover (RFC 3647 Section 5.6)

CA key pairs are retired from service at the end of their respective maximum lifetimes as defined in the CA's CPS but not to exceed 20 years. CA Certificates may be renewed as long as the cumulative certified lifetime of the CA key pair does not exceed 20 years. CA's must ensure that key changeover procedures are followed and that those procedures provide a smooth transition to a new CA key pair. The CA key changeover process must allow an overlap period to ensure that service is not interrupted and must provide at least 60 days notice to all certificate holders.

012-1.19.8 CA Termination (RFC 3647 Section 5.8)

NAESB may rescind a CA's certification for cause at any time by providing 30 days notice in writing to the CA. CA's that receive a rescission notice from NAESB are required to notify all affected certificate holders within 5 days that their NAESB certification has been rescinded and their certificates will no longer be valid.

CA's must be recertified by NAESB upon any of the following events:

- Purchase, Sale or Merger of the CA by/with another entity
- Renewal as required by the NAESB Certification Program

An Authorized CA that is voluntarily suspending its participation as an Authorized CA shall give NAESB and all current Subscribers a minimum of 30 days notice prior to suspending operations.

012-1.20 PHYSICAL, PROCEDURAL, AND PERSONNEL SECURITY CONTROLS (RFC 3647 Section 5.)

Each Authorized CA, and all associated RAs, Repositories, etc., shall implement appropriate physical security controls to restrict access to the hardware and software (including the server, workstations, and any external cryptographic hardware modules or tokens) used in connection with providing Authorized CA Services. Access to such hardware and software shall be limited to those personnel performing in a trusted role as described in Section 5.2.1.

012-1.21 PHYSICAL CONTROLS (RFC 3647 Section 5.1)

012-1.21.1 Site location and construction (RFC 3647 Section 5.1.1)

Physical security controls shall be implemented that protect the Authorized CA's hardware and software from unauthorized access and damage. Authorized CA cryptographic modules shall be protected against theft, loss, and unauthorized use.

The Authorized CA shall implement appropriate physical security controls to restrict access to and protect the hardware and software used in connection with providing Authorized CA Services. Proper physical barriers shall be in place. For instance, surrounding walls shall extend from real ceiling to real floor, not raised floor or suspended ceiling. The facility will be locked and intruder detection systems will be activated while the facility is unoccupied.

Fire prevention and protection controls will be in place, including a fire extinguisher system. CA facilities must be constructed to prevent exposure of systems to water. All electronic physical security devices will be tested daily.

The Authorized CA equipment responsible for all key operations (e.g., certificate issuance, CRL signing, etc.) shall be dedicated to certification authority functions only; it shall not perform non-certification authority related functions. The Authorized CA's facility shall also store backup and distribution media in a manner sufficient to prevent loss, tampering, or unauthorized use of the stored information.

012-1.21.2 Physical access (RFC 3647 Section 5.1.2)

Physical access to the Authorized CA's systems will be limited to authorized individuals with a valid purpose to enter. Authentication controls will be used to access areas containing the Authorized CA's systems. Those persons not authorized to enter the facility but who require access for business purposes can enter the facility only if escorted by authorized personnel. All access to the Authorized CA facility must be logged.

012-1.21.3 Power and air conditioning (RFC 3647 Section 5.1.3)

The Authorized CA facility shall be supplied with power and air conditioning sufficient to create a reliable operating environment. Personnel areas within the facility shall be equipped with sufficient facilities to satisfy operational needs and comply with all applicable health and safety requirements.

012-1.21.4 Cabling and Network Devices

Cabling and network devices supporting Authorized CA Services shall be protected from interception and damage.

012-1.22 PROCEDURAL CONTROLS (RFC 3647 Section 5.2)

012-1.22.1 **Trusted roles (RFC 3647 Section 5.2.1)**

An Authorized CA must ensure a separation of duties for critical Authorized CA functions to prevent one person from maliciously using the Authorized CA system without detection.

An Authorized CA shall provide for a minimum of three distinct PKI personnel roles, distinguishing between day-to-day operation of the Authorized CA system(s), the administration/management of CA operations, and auditing of those operations. The selection and distinction of trusted roles must provide resistance to insider attack and no one person shall be allowed to fill more than one role.

012-1.22.2 **Number of persons required per task (RFC 3647 Section 5.2.2)**

An Authorized CA shall use commercially reasonable practices to ensure that one person acting alone cannot circumvent security safeguards or otherwise compromise the integrity of the certificate PKI.

012-1.22.3 **Identification and authentication for each role (RFC 3647 Section 5.2.3)**

All Authorized CA personnel must have their identity and authorization verified under procedures substantially similar to those stipulated in requirement 1.8.5 before they are:

- Included in the access list for the Authorized CA site
- Included in the access list for the Authorized CA system
- Given a certificate for the performance of their Authorized CA role
- Given an account on the PKI system

Each of these certificates and accounts must be:

- Directly attributable to a single individual (not shared)
- Securely stored
- Restricted to actions authorized for that role through the use of Authorized CA software, operating system and procedural controls

Authorized CA operations must be secured, using mechanisms such as token-based strong authentication and encryption, when accessed across a shared network.

012-1.23 KEY PAIR GENERATION, INSTALLATION, AND MANAGEMENT (RFC 3647 Section 6.1)

012-1.23.1 **CA Key pair generation (RFC 3647 Section 6.1.1)**

Authorized CA keys must be generated and remain in a Federal Information Processing Standards (FIPS) 140-2 Level 3 hardware device. This must include, but is not limited to:

- CA keys encrypted using industry best practices, encoded with M of N access, and stored on a tamper-evident hardware device to ensure their integrity.
- All CA key operations, including but not limited to generation, backup, renewal, and archive, performed exclusively within a FIPS 140-2 Level 3 hardware to prevent unauthorized access to keys.
- True two-factor, trusted path, multi-person identity-based authentication of administrative users to prevent unauthorized access to sensitive CA keys.
- CA private keys can never be output in plaintext and no private key shall appear unencrypted outside the device.

012-1.23.2 **Public key delivery to certificate issuer (RFC 3647 Section 6.1.3)**

The Authorized CA shall implement a program to securely transfer an applicant's public key to the certificate issuer in a way that ensures that (1) it has not been changed during transit, and (2) the sender possesses the private key that corresponds to the transferred public key.

012-1.23.3 **Key sizes (RFC 3647 Section 6.1.5)**

Public cryptography key lengths shall be a minimum of 1024 bits for all non-CA certificates and 2048 for all Authorized CA certificates.

012-1.23.4 **Private Key Protection (RFC 3647 Section 6.2)**

Each Authorized CA shall protect its private key(s) in accordance with FIPS 140-2 Level 3 and all cryptographic modules shall be validated to meet or exceed FIPS 140-2 Level 3 requirements.

All cryptographic modules shall be operated such that the private asymmetric cryptographic keys shall never be output in plaintext. No private key shall appear unencrypted outside the Authorized CA equipment.

No one shall have access to a private signing key but the Authorized CA. Any private key management keys held by an Authorized CA shall be stored in a FIPS validated device.

Section 1.23.1 stipulates the minimum cryptographic module requirements for Authorized CA key pair generation

012-1.23.5 Usage Periods for Public and Private Keys (RFC 3647 Section 6.3.2)

Certificates issued to individual or role Subscribers shall have a validity period not to exceed two years. Certificates issued to devices or applications shall have a usage period not to exceed three years.

012-1.24 COMPUTER SECURITY CONTROLS (RFC 3647 Section 6.5)

Each computer that is used to administer or operate within the PKI framework must have a minimum level of security before accessing the infrastructure. Each machine must be free of viruses, trojan horse vulnerabilities, spyware, key loggers (except those required by a CA's audit policy and CPS), or any other malicious software or hardware that could be used to intercept or compromise the PKI certificate or portions thereof.

The Authorized CA equipment responsible for all key operations (e.g., certificate issuance, CRL signing, etc.) shall be dedicated to certification authority functions only; it shall not perform non-certification authority related functions.

012-1.25 NETWORK SECURITY CONTROLS (RFC 3647 Section 6.7)

An Authorized CA must document in detail its network security controls in its CPS. Access to unused ports and services must be denied. Users shall be provided access only to services that they are specifically authorized to use. Remote access and connections from remote computers must be limited to only those absolutely necessary, and must be properly authenticated. External threats shall be mitigated by controls such as firewalls, network intrusion detection systems, and router access control lists to protect the internal network. The Authorized CA shall document security attributes of all network services.

012-1.26 CERTIFICATE PROFILE (RFC 3647 Section 7.1)

All Certificates issued under these standards must be issued in the X.509 v3 format and contain at least the following fields:

- Serial number
- Issuer name (DN of CA issuing certificate)
- Period of validity (Valid From and Valid To)
- Subject name (DN of certificate owner)
- Subject public key (public key of certificate owner)
- Cryptographic Signature of Issuer

The Subject name field must contain both the Organizational attribute and Common Name attribute. The Common Name (CN=) attribute must be set to one of the unique domain names of the Subject. The Organizational (O=) attribute must be set to the legal name of the Subject.

012-1.26.1 Version Numbers (RFC 3647 Section 7.1.1)

All certificates shall be X.509 version 3 certificates.

012-1.26.2 Certificate Extensions (RFC 3647 Section 7.1.2)

Certificates issued under these standards should be populated in accordance with RFC 3280: Internet X.509 Public Key Infrastructure Certificate and CRL Profile, April 2002.

012-1.26.3 Certificate policy Object Identifier (RFC 3647 Section 7.1.6)

Unless certificates issued under a given Class as defined in these standards are uniquely identified by the certification path (e.g., Root CA), all certificates must include a Certificate Policy Identifier equal to the Authorized CA Policy Object ID and should include a Policy Qualifier which points to the Certificate Authority's CPS. Other Policy Qualifiers may be used to point to legal, privacy, or restricted use notices.

012-1.26.4 Subject Alternative Name

This is an optional extension based on RFC 822 [RFC 822], which may be used to further clarify the owner of the certificate or to strengthen name uniqueness. When the Subject Alternative name (subjectAltName) extension contains an Internet mail address, the address must be included as an rfc822Name. The format of an rfc822Name is an "addr-spec" as defined in RFC 822. An addr-spec has the form "local-part@domain".

012-1.26.5 CRL Distribution Point

All certificates must include at least one CRL Distribution Point which uses the HTTP protocol and may additionally use any of the currently available protocols, including File Transfer Protocol (FTP), or LDAP, etc.

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Business Practices for Open Access Same-Time Information Systems (OASIS) Implementation Guide, Version 1.4

Introduction

This OASIS Implementation Guide establishes general and specific transaction processing requirements and related business processes required for OASIS. The technical standards for OASIS are defined in Standards WEQ-002 and WEQ-003, and the companion business practice standards are defined in Standards WEQ-001.

In the event of a conflict between a Primary Provider's Tariff, applicable business practices, and this Implementation Guide, the Tariff shall take precedence over all, and business practices shall take precedence over this document.

Usage of Terms

The following terms as used throughout this Implementation Guide are to be interpreted as follows:

013-0.1 **OASIS** – Refers to the Primary Provider's implementation of the OASIS Transmission Customer interface as defined in Standards WEQ-002, **and** any back-end supporting systems or user procedures that collectively perform the transaction processing functions associated with handling of requests on OASIS.

013-0.2 **Business Practice** – Refers collectively to any business practices adopted by the Primary Provider as defined in their Open Access Transmission Tariff (OATT), NAESB ratified Business Practice Standards, or provider specific practices or requirements.

013-0.3 **Template** – Refers generically, or by reference to a specifically named template, to the templates defined for the Transmission Customer interface to OASIS in Standards WEQ-002, **including** the displays and forms associated with the web browser based user interface implementing the functions of an OASIS defined template.

013-0.4 **Must, shall, or required** – Define specific requirements for OASIS processing that are not optional and must be implemented as described.

013-0.5 **May, should, or optional** – Define optional requirements that are recommended for implementation in OASIS but are not specifically required under these Standards.

Additional terms defined in Standards WEQ-001 and WEQ-002 are also hereby incorporated by reference.

Business Practice Requirements

013-1 RESERVED

013-1.1 RESERVED

013-2 **OASIS TRANSACTION PROCESSING**

The basic OASIS transaction process is described below. This Implementation Guide also provides additional requirements and guidance for processing specific types of business transactions in the implementation of OASIS. Note that the Primary Provider may, but is not limited to, interacting with OASIS using the Transmission Customer template or user interface. Primary Providers may also implement OASIS functions on back-end systems and are not required to perform all transaction processing on an OASIS node proper, provided that the results of all transaction processing are correctly posted on OASIS as required by the Tariff, regulation, or other established business practices.

The following is a summary of the templates used and actions that may be taken by the Transmission Customer and Seller to execute a transaction on OASIS. Note that the OASIS Standards require all template functionality to be provided through a User Interface. While this discussion focuses on template execution, all actions must be supported through a browser-based User Interface. Detailed examples of the transaction process and description of the business logic envisioned to be implemented as part of the Primary Provider's OASIS or other back-end transaction support services are provided in subsequent sections of this Implementation Guide.

- a. The ***transrequest*** and ***ancrequest*** Templates shall be used by the Transmission Customer to enter a transaction request for specific transmission or ancillary services from a specified Seller. All pertinent transaction-specific information must be provided in the template data elements.
- b. The ***transstatus*** and ***ancstatus*** Templates shall be used by both Transmission Customer and Seller to query for the current transaction information (e.g., STATUS). Alternatively, the Transmission Customer may request dynamic notification per WEQ-002-4.2.10.3 whenever the transaction data is changed.
- c. The ***transsell*** and ***ancsell*** templates shall be used by the Seller to indicate to the Transmission Customer whether the request is acceptable or not by setting the transaction STATUS to one of **RECEIVED, INVALID, STUDY, COUNTEROFFER, ACCEPTED, REFUSED, SUPERSEDED, DECLINED, DISPLACED, ANNULLED, or RETRACTED**. A Primary Provider as the Seller may use the *transsell* and *ancsell* templates to act on requests or may use proprietary software solutions to perform this function in a similar manner.

- d. The ***transcust*** and ***anccust*** templates shall be used by the Transmission Customer to indicate to the Seller whether they wish to negotiate, confirm or withdraw the transaction by setting the transaction STATUS to one of **REBID**, **CONFIRMED**, or **WITHDRAWN**.
- e. The ***transassign*** and ***anccassign*** templates shall be used by the Seller to notify the Primary Provider of the transfer of rights from the Seller to the Transmission Customer consummated off the OASIS Node.
- f. The source of all Transmission Customer and Seller contact information shall be provided under WEQ-002-3.1 REGISTRATION AND LOGIN REQUIREMENTS. Therefore, it shall not be input as part of uploads, but shall be provided as part of all transaction downloads.
- g. OASIS Nodes shall accept a Seller-initiated change in STATUS to ACCEPTED only when OFFER_PRICE matches BID_PRICE.
- h. OASIS Nodes shall accept a Transmission Customer-initiated change in STATUS to CONFIRMED only when BID_PRICE matches OFFER_PRICE.
- i. If CAPACITY_GRANTED is null when STATUS is being changed to ACCEPTED or CONFIRMED, the OASIS Node shall set it equal to CAPACITY_REQUESTED.
- j. OASIS Nodes shall set the initial transaction STATUS of the request to QUEUED and assign a unique ASSIGNMENT_REF identifier for the transaction.
- k. If the Transmission Customer has identified the transaction as PRECONFIRMED and the Seller has set the transaction STATUS to ACCEPTED, OASIS Nodes shall automatically set the transaction's STATUS to CONFIRMED without any Transmission Customer interaction required.
- l. If the Transmission Customer has identified the transaction as PRECONFIRMED and the Seller has set the transaction STATUS to COUNTEROFFER, OASIS Nodes shall take no automatic confirmation action on the transaction and require explicit confirmation by the Transmission Customer.

This transaction process flow is depicted in the diagram below.

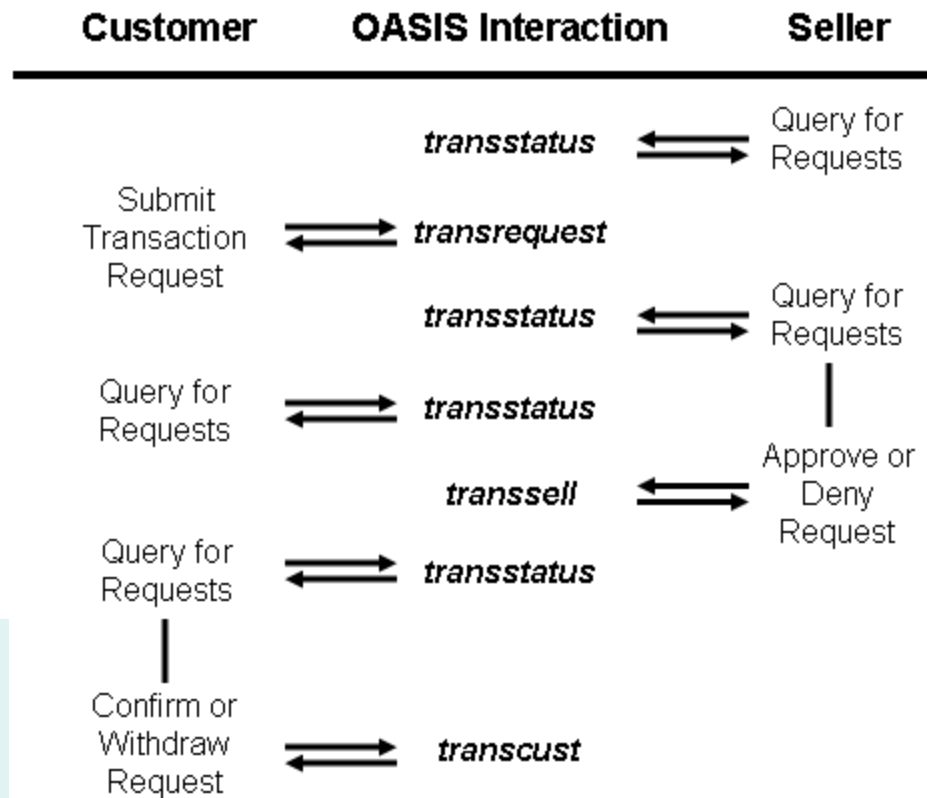


Exhibit 1 Transaction Template Usage Diagram

013-2.1

TRANSACTION REQUEST TYPES

The following are the valid OASIS transaction request types (template data element REQUEST_TYPE) that may be submitted by the Transmission Customer unless otherwise noted, along with a brief description of their intended use:

ORIGINAL = typical reservation requests submitted to the Primary Provider (as the Seller of the transmission or ancillary service)

RESALE = secondary market requests submitted to a Transmission Customer as Secondary Provider

RENEWAL = request to renew an expiring transmission reservation

MATCHING = request to meet or exceed a competing request to retain transmission service (right of first refusal)

DEFERRAL = request to defer or apply for an extension on start of transmission service

REDIRECT = request to redirect all or portion of a transmission reservation to an alternate POR/POD and/or make other changes to the terms of service as permitted

RELINQUISH = request to release all or a portion of the capacity of a Redirect on a Non-Firm basis to the Firm Parent Reservation

{registered} = A Primary Provider may register values for REQUEST_TYPE to implement specific provisions of their Tariff.

This Implementation Guide contains detailed descriptions on the use of each transaction REQUEST_TYPE and explains the business processes to be implemented in association with each of these requests as specified by the OASIS Business Practice Standards, WEQ-001.

013-2.2 TRANSACTION STATUS

The following are the defined values that may appear in the STATUS data element associated with a given OASIS transaction:

QUEUED = initial status assigned by TSIP on receipt of "customer services purchase request."

INVALID = assigned by TSIP, or Primary Provider indicating an invalid field in the request, such as improper POR, POD, source, sink, etc. (Final state)

RECEIVED = assigned by Primary Provider or Seller to acknowledge QUEUED requests and indicate the service request is being evaluated, including for completing the required ancillary services.

STUDY= assigned by Primary Provider or Seller to indicate some level of study is required or being performed to evaluate service request.

REFUSED = assigned by Primary Provider or Seller to indicate service request has been denied due to lack of available transfer capability. (Final state)

COUNTEROFFER = assigned by Primary Provider or Seller to indicate that a new OFFER_PRICE is being proposed or that CAPACITY_GRANTED is less than CAPACITY_REQUESTED.

REBID = assigned by Transmission Customer to indicate that a new BID_PRICE is being proposed.

SUPERSEDED = assigned by Primary Provider or Seller when a request which has not yet been confirmed is preempted by another reservation request. (Final state)

ACCEPTED = assigned by Primary Provider or Seller to indicate the service request at the designated OFFER_PRICE and CAPACITY_GRANTED has been approved/accepted. If the reservation request was submitted PRECONFIRMED and CAPACITY_GRANTED is equal to

CAPACITY_REQUESTED, the OASIS Node shall immediately set the reservation status to CONFIRMED. Depending upon the type of ancillary services required, the Seller may or may not require all ancillary service reservations to be completed before accepting a request.

DECLINED = assigned by Primary Provider or Seller to indicate that the terms and conditions of the request, such as the BID_PRICE, are unacceptable and that negotiations are terminated or that contractual terms and conditions have not been met. (Final state)

CONFIRMED = assigned by Transmission Customer in response to Primary Provider or Seller posting "ACCEPTED" status, to confirm service. Once a request has been "CONFIRMED," a transmission service reservation exists. (Final state, unless overridden by DISPLACED or ANNULLED state)

WITHDRAWN = assigned by Transmission Customer at any point in request evaluation to withdraw the request from any further action. (Final state)

DISPLACED = assigned by Primary Provider or Seller when a "CONFIRMED" reservation from a Transmission Customer is displaced by a higher priority reservation and the Transmission Customer is not offered or has not exercised right of first refusal (i.e. refused to match terms of new request). (Final state)

ANNULLED = assigned by the Seller when, by mutual agreement with the Transmission Customer, a confirmed reservation is to be voided, or assigned unilaterally by the Primary Provider when a confirmed reservation is to be voided. (Final state)

RETRACTED = assigned by Primary Provider or Seller when the Transmission Customer fails to confirm or withdraw the request within the required time period. (Final state)

The following state transition diagram can be used as a business process guideline and illustrates the valid changes that may be made to the STATUS value by the Seller and Transmission Customer during the transaction process; however, individual tariffs may dictate specific allowed actions between states that are not reflected in this diagram.

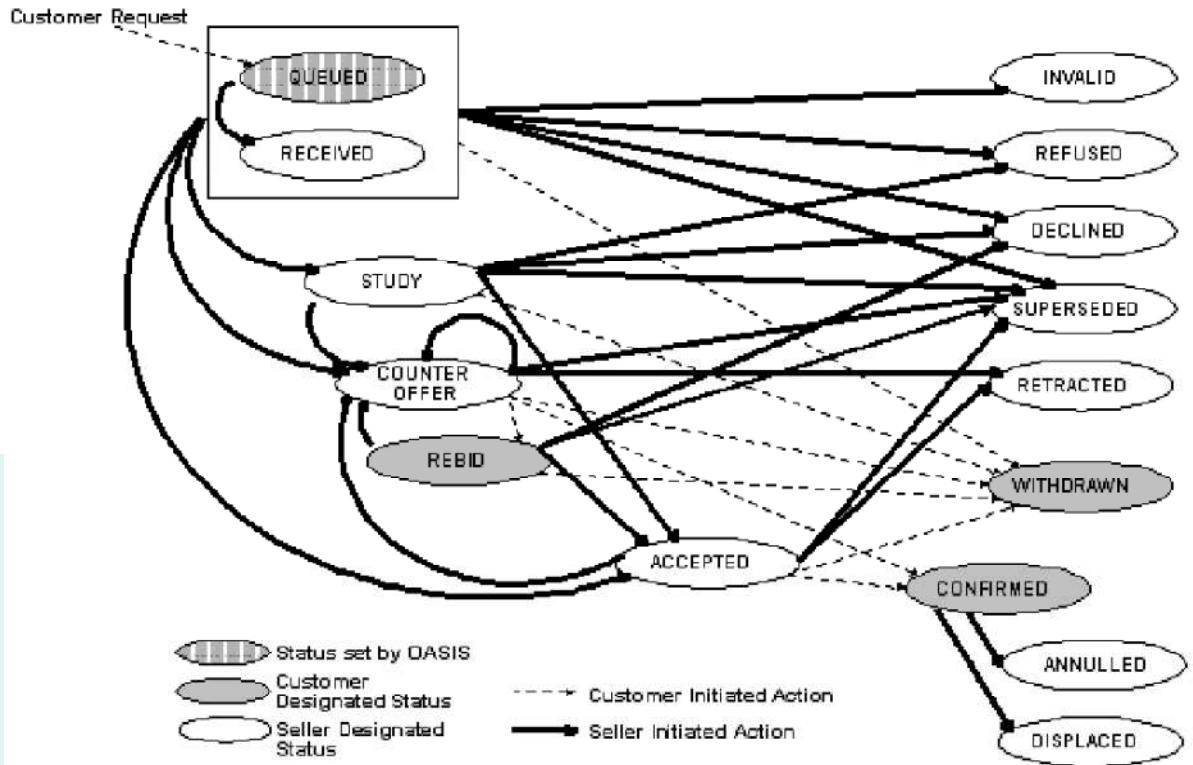


Exhibit 2 - State Diagram of Purchase Transactions

013-2.3 BASIC OASIS TRANSACTION HANDLING

Requests to reserve or purchase transmission or ancillary service shall be submitted to OASIS by the Transmission Customer via the ***transrequest*** or ***ancrequest*** templates.

The Seller specified in the request must be the Primary Provider for REQUEST_TYPE of ORIGINAL, REDIRECT, RELINQUISH, RENEWAL, or DEFERRAL. The Seller specified in the request must be a registered entity other than the Primary Provider for REQUEST_TYPE of RESALE or TRANSFER. The Seller may be either the Primary Provider or another registered entity for REQUEST_TYPE of MATCHING.

OASIS should screen submitted requests to validate proper use of REQUEST_TYPE. Additional restrictions based on specific REQUEST_TYPES are detailed in subsequent Standards. Validations on the service requested, service start time and duration, submission time, etc., are established by business practice.

Once successfully submitted on OASIS, the Seller may take any of the following actions via the ***transsell/ancsell*** template:

- Acknowledge receipt by setting STATUS to RECEIVED or STUDY
- Deny the request by setting STATUS to INVALID, DECLINED, or REFUSED
- Approve the request by setting STATUS to ACCEPTED or COUNTEROFFER

At any time during the processing of the request, the Transmission Customer may set STATUS to WITHDRAWN to remove the request from further consideration by the Seller.

Once the Seller approves the request, the Transmission Customer may take any of the following actions via the ***transcust/anccust*** template:

- WITHDRAW the request
- Continue negotiation of the request by setting STATUS to REBID
- Complete the request by setting STATUS to CONFIRMED

Prior to final confirmation by the Transmission Customer, the Seller may override their approval of the request with the following actions:

- Retract approval based on exceeding of Transmission Customer confirmation time limits and/or scheduling deadlines or other criteria established by business practice by setting the STATUS to RETRACTED
- Retract approval based on receipt of a higher priority competing request by setting the STATUS to SUPERSEDED

Once CONFIRMED on OASIS by the Transmission Customer a service reservation shall be deemed to exist. The Seller or the Primary Provider may take the following actions on a CONFIRMED service reservation:

- Nullify the reservation for cause by setting the STATUS to ANNULLED
- Displace the reservation in-whole to accommodate a higher priority competing request by setting the STATUS to DISPLACED

Seller's shall provide a reason in the SELLER_COMMENTS whenever a service request is set to the STATUS of INVALID, REFUSED, DECLINED, RETRACTED, SUPERSEDED, ANNULLED or DISPLACED. The Primary Provider, when not acting as the Seller, shall provide a reason in the PROVIDER_COMMENTS whenever a service request is set to the STATUS of ANNULLED or DISPLACED.

013-2.4 DISPLACEMENT

Displacement of an OASIS reservation may occur when a higher priority transmission service request is received by the Primary Provider and there is insufficient Available Transfer Capacity (ATC) to honor that request, but capacity could be made available through the displacement of lower priority requests/reservations. The following Standards describe the business process to be implemented on OASIS when this occurs.

013-2.4.1 Displacement – No Right of First Refusal

Confirmed transmission reservations may be subject to displacement in the event competing, higher priority requests are received by the Primary Provider.

If the existing Transmission Customer does not have the right of first refusal and all capacity from that Transmission Customer's confirmed reservation is required to accommodate the higher priority request, the Primary Provider shall set the existing reservation's STATUS to DISPLACED. The STATUS of DISPLACED indicates that the reservation has been displaced in its entirety.

If only a portion of the confirmed reservation's capacity is required to accommodate the higher priority request, the Primary Provider shall document the recall of reserved capacity from the lower priority confirmed reservation by incrementing the IMPACTED counter on that reservation and posting on OASIS the amount and time frames over which that reservation's capacity was reduced, i.e., a partial displacement. The Transmission Customer may view all impacts to existing transmission service reservations (e.g., partial displacements, secondary sales, etc.) using the **reduction** template.

A reference to the competing transmission service request that forced the displacement should be entered in the SELLER_COMMENTS field of the displaced reservation.

013-2.4.2 Displacement – With Right of First Refusal

Confirmed transmission reservations may be subject to displacement in the event competing, higher priority requests are received by the Primary Provider, but have the right of first refusal to retain their transmission service.

If the Primary Provider's Tariff obligates, or the Primary Provider elects to grant the original Transmission Customer the right of first refusal, the existing Transmission Customer shall be notified of the competing request. The Primary Provider shall set the existing lower priority reservation's COMPETING_REQUEST_FLAG to Y and update the SELLER_COMMENTS to include the ASSIGNMENT_REF associated with the higher priority competing request. These actions will initiate electronic notification, provided the Transmission Customer has elected to receive such notification.

If the existing Transmission Customer elects to meet the terms and conditions of the competing request, that Transmission Customer shall submit a new MATCHING reservation request using the *transrequest* template. The specific requirements associated with submission of MATCHING requests are detailed in Standard 013-2.6.3.

If the Primary Provider accepts and the Transmission Customer confirms the MATCHING request, the Primary Provider shall set the STATUS of the competing request to REFUSED and set the STATUS of the existing lower priority confirmed reservation to DISPLACED. The STATUS of DISPLACED indicates that the reservation has been displaced in its entirety and has been replaced by the confirmed MATCHING reservation.

If the existing Transmission Customer does not elect to meet the terms of the competing request, the Primary Provider shall displace the existing lower priority reservation, in whole or in part, in the same manner described for displacement of reservations that are not extended a right of first refusal.

Once the result of the competition is resolved, whether through MATCHING or displacement of the existing reservation, the Primary Provider shall reset the COMPETING_REQUEST_FLAG to N in the reservation subject to displacement.

013-2.5 PRIMARY PROVIDER RECALLS

There are cases in implementing provisions of the Primary Provider's Tariff that the capacity reserved by a Transmission Customer may be reduced in whole or in part, e.g. Displacement or Interruption. The particular reasons for these reductions are Tariff specific.

The Primary Provider shall provide a mechanism to post on OASIS any such reductions or recalls in reserved capacity. The Transmission Customer shall be notified of any and all such reductions in reserved capacity by the incrementing of the IMPACTED counter in association with those reservations that are reduced; the IMPACTED flag is viewable with the **transstatus** template. Specific information regarding the exact nature of each reduction in the reserved capacity under a given transmission reservation shall be posted and viewable with the **reduction** template.

A specific example of a Primary Provider initiated recall of reserved capacity is the implementation of a partial displacement of a transmission reservation. In this instance, the Transmission Customer has not elected (or was not required to be offered) to match the terms of a higher priority, competing request. The Primary Provider recalls that capacity necessary to accommodate the higher priority request from the existing lower priority reservation. The IMPACTED counter of that reservation is incremented, and a query using the **reduction** template for that reservation would show the Transmission Customer the amount and time-frame over which the Transmission Customer's reserved capacity was recalled by the Primary Provider.

Interruption of transmission service, where that interruption directly impacts the rights of the Transmission Customer to schedule any service under that reservation, is another example of an impact to reserved capacity that would be posted as a Primary Provider initiated recall of reserved capacity. Secondary market sales of transmission rights are not examples of a Primary Provider initiated recall of reserved capacity, but the impact of any such sales shall also be returned in response to execution of the **reduction** template.

013-2.6

TRANSACTION SPECIFIC HANDLING

The following Standards identify specific OASIS data elements and processing requirements that must be implemented by OASIS and/or associated back-end support systems. The results of all transaction processing shall be viewable by all appropriate entities via the **transstatus/ancstatus** templates and corresponding OASIS User Interface.

013-2.6.1 ORIGINAL Requests

ORIGINAL requests shall be submitted by the Transmission Customer to arrange for new transmission or ancillary service with the Primary Provider.

The following are specific restrictions or requirements for OASIS service requests with REQUEST_TYPE of ORIGINAL. If REQUEST_TYPE is not specified by the Transmission Customer and SELLER_CODE and SELLER_DUNS are the same as PRIMARY_PROVIDER_CODE and PRIMARY_PROVIDER_DUNS, OASIS shall default REQUEST_TYPE to ORIGINAL.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be ORIGINAL
RELATED_REF	Must be null
SELLER_CODE	Must match PRIMARY_PROVIDER_CODE
SELLER_DUNS	Must match PRIMARY_PROVIDER_DUNS

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

Additional requirements related to the specification of service points, attributes, pricing, and timing are subject to the Primary Provider’s business practices.

The Transmission Customer may submit a time varying profile of capacity as allowed by the Primary Provider’s business practice by repeating the template data elements of CAPACITY_REQUESTED, START_TIME and STOP_TIME in template continuation records.

013-2.6.1.1 Offering of Partial Service

If in the evaluation of a transmission request, the Primary Provider determines that only a portion of the Transmission Customer's requested capacity (CAPACITY_REQUESTED data element) can be accommodated and that the Primary Provider is obligated or elects to offer the Transmission Customer only a portion of the requested capacity, the Primary Provider shall set the CAPACITY_GRANTED data element associated with that transmission service request to the amount available, and set the request’s STATUS to COUNTEROFFER.

If the CAPACITY_REQUESTED and/or CAPACITY_GRANTED are not constant over time, continuation records shall be used to convey the time varying profile of MW capacity associated with the transmission request via the data elements CAPACITY_REQUESTED, CAPACITY_GRANTED, START_TIME and STOP_TIME. The profile of CAPACITY_GRANTED must span the entire START_TIME to STOP_TIME interval initially requested by the Transmission Customer even if CAPACITY_GRANTED is zero.

The Transmission Customer shall recognize the offer of partial service by CAPACITY_GRANTED not being equal to CAPACITY_REQUESTED and the request STATUS of COUNTEROFFER. The Transmission Customer may elect to CONFIRM, WITHDRAW, or REBID the reservation using the *transcust* template.

If the transmission reservation request was marked PRECONFIRMED by the Transmission Customer and an offer of partial service is extended, the reservation request must be explicitly CONFIRMED by the Transmission Customer. The OASIS node shall not automatically confirm a request where CAPACITY_REQUESTED does not equal CAPACITY_GRANTED when/if an attempt is made to set STATUS to ACCEPTED.

The Primary Provider shall use this same process in handling the deferral to the start of transmission service due to delays in completing the necessary transmission system studies associated with the request. In these cases, the Primary Provider shall document the deferral by setting an initial transmission service profile record with CAPACITY_GRANTED set to zero MWs and beginning with the originally requested START_TIME and STOP_TIME coincident with the delayed start of service. The Primary Provider shall then specify the capacity to be made available to the Transmission Customer in one or more subsequent transmission service profile continuation records by defining CAPACITY_GRANTED, START_TIME and STOP_TIME as appropriate.

013-2.6.1.2 Negotiation of Price

Negotiation of price is initiated by the Transmission Customer submitting a service request (via *transrequest/ancrequest*) with a BID_PRICE that is different (higher or lower) from the currently posted offer price, or the tariff rate, for that service. The following negotiation process is required where the Seller is the Primary Provider. Resales or transfers between Transmission Customers may use this process, but there is no obligation on the (Re)Seller to offer a negotiated rate to other Transmission Customers.

If the Seller determines that the BID_PRICE is acceptable, the following actions must be taken (via *transsell/ancsell*):

- Update the currently posted offer price for the service requested and all other applicable services offered as dictated by current discounting policy (e.g., all unconstrained paths to the same point of delivery) to match BID_PRICE;
- Update the request's NEGOTIATED_PRICE_FLAG to L or H if the BID_PRICE was lower than or higher than, respectively, the posted price when the request was submitted;
- Set the OFFER_PRICE equal to the BID_PRICE;
- Set the CAPACITY_GRANTED appropriately (if left null or undefined, OASIS shall set CAPACITY_GRANTED equal to CAPACITY_REQUESTED when STATUS is set to ACCEPTED);
- Set the request STATUS to ACCEPTED (or COUNTEROFFER if offering partial service)

The Transmission Customer may then confirm the purchase or withdraw the request by updating the request STATUS (via ***transcust/anccust***).

If the Seller determines that the BID_PRICE is unacceptable, and negotiation of price is not going to be entertained, the Seller shall set the request STATUS to DECLINED (via ***transsell/ancsell***):

If the Seller elects to enter into price negotiation, the following actions must be taken (via ***transsell/ancsell***):

- If the price to be counter offered to the Transmission Customer is different than the currently posted offer price:
 - Update the currently posted offer price for the service requested and all other applicable services offered as dictated by current discounting policy (e.g., all unconstrained paths to the same point of delivery) to match the price to be counteroffered;
 - Update the request's NEGOTIATED_PRICE_FLAG to L or H if the price to be counter offered is lower than or higher than, respectively, the posted price when the request was submitted;
- Set the OFFER_PRICE and CAPACITY_GRANTED appropriately;
- Set the request STATUS to COUNTEROFFER.

The Transmission Customer may then confirm the purchase, withdraw the request, or propose a new BID_PRICE by performing the following (via ***transcust/anccust***):

- Update the request BID_PRICE;
- Set the request STATUS to REBID.

The Seller may then act on the new BID_PRICE by declining the request, accepting the BID_PRICE, or counter offering a new OFFER_PRICE using the same sequence of actions as stated above.

Negotiation of price may also be initiated on receipt of a request for similar service submitted with a higher BID_PRICE. If required by business practice, the Seller (Primary Provider) may update any ACCEPTED but unconfirmed requests to COUNTEROFFER with the associated OFFER_PRICE set to meet the higher received BID_PRICE, and the negotiation of price can proceed as described above.

013-2.6.2 RENEWAL Requests

Transmission Customers shall use the REQUEST_TYPE of RENEWAL to exercise rollover rights associated with an existing transmission service reservation held by the Transmission Customer. RENEWAL requests must always specify the Primary Provider as SELLER.

The following are specific restrictions or requirements for OASIS service requests with REQUEST_TYPE of RENEWAL.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be RENEWAL
RELATED_REF	Must specify the ASSIGNMENT_REF associated with an existing confirmed transmission service reservation held by the Transmission Customer that 1) has rollover rights, and 2) whose rollover rights have not expired.
SELLER_CODE	Must match PRIMARY_PROVIDER_CODE
SELLER_DUNS	Must match PRIMARY_PROVIDER_DUNS
PATH	Must represent the same corresponding service points in the reservation specified in RELATED_REF
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must specify a set of valid transmission service attributes recognized by the Primary Provider as a valid service designation eligible for exercising of rollover rights held by the reservation specified in RELATED_REF
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	
START_TIME	Must match the STOP_TIME of the reservation specified in RELATED_REF
STOP_TIME	With START_TIME, must specify a valid interval of service eligible for exercising of rollover rights held by the reservation specified in RELATED_REF
CAPACITY_REQUESTED	Must be less than or equal to the amount of capacity eligible for rollover over the interval of service

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

RENEWAL requests must be submitted on OASIS prior to expiration of the Transmission Customer’s rollover rights as established by business practice.

The transmission service attributes, e.g., TS_CLASS, etc., should match the corresponding attributes in the reservation specified in RELATED_REF. However, changes may be made to these attributes over time such that some differences are necessary to accommodate changes in the Primary Provider’s business practices. This also applies to changes in service points, e.g., PATH, etc., over time.

RENEWAL requests may be subject to offering of partial service and negotiation just as an ORIGINAL request.

013-2.6.3 MATCHING Requests

Transmission Customers shall use the REQUEST_TYPE of MATCHING to exercise right of first refusal to avoid being displaced by a higher priority competing request.

The following are specific restrictions or requirements for OASIS service requests with REQUEST_TYPE of MATCHING.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be MATCHING
RELATED_REF	Must specify the ASSIGNMENT_REF associated with an existing confirmed transmission service reservation held by the Transmission Customer that is subject to displacement.
PATH	Must represent the same corresponding service points in the reservation specified in RELATED_REF
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must specify a set of valid transmission service attributes that meet the requirements to exercise right of first refusal
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	
START_TIME	Must specify the start time that meets the requirements to exercise right of first refusal
STOP_TIME	With START_TIME, must specify a valid interval of service eligible for exercising right of first refusal
CAPACITY_REQUESTED	Must specify the capacity that meets the requirements to exercise right of first refusal

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

013-2.6.4 DEFERRAL Requests

The DEFERRAL request shall be used by Transmission Customers to request a delay in the start of an existing transmission service reservation held by the Transmission Customer. DEFERRAL requests must always specify the Primary Provider as SELLER.

The following are specific restrictions or requirements for OASIS service requests with REQUEST_TYPE of DEFERRAL.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be DEFERRAL
RELATED_REF	If submitted by the Transmission Customer, must specify the ASSIGNMENT_REF associated with an existing confirmed transmission service reservation held by the Transmission Customer whose start time is to be delayed/deferred. If posted by the Primary Provider, must specify the ASSIGNMENT_REF associated with a pending transmission service request submitted by the Transmission Customer whose start time is to be deferred.
SELLER_CODE	Must match PRIMARY_PROVIDER_CODE
SELLER_DUNS	Must match PRIMARY_PROVIDER_DUNS
PATH	Must represent the same corresponding service points in the reservation/request specified in RELATED_REF
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must represent the same set of valid transmission service attributes recognized by the Primary Provider as a valid service designation specified in the reservation/request specified in RELATED_REF
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	
START_TIME	Must specify the new requested time for the start of transmission service and must be greater than the START_TIME of the reservation/request specified in RELATED_REF
STOP_TIME	With START_TIME, must specify a valid interval of service based on the transmission service attributes
CAPACITY_REQUESTED	Must be equivalent to the amount of capacity originally reserved/requested

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

When submitted by the Transmission Customer and ultimately approved and confirmed; OASIS or the Primary Provider procedurally must set the status of the reservation specified in RELATED_REF to ANNULLED. The DEFERRAL request becomes the new transmission service reservation reflecting the delay in start of service requested.

The Primary Provider shall evaluate pending DEFERRAL requests relative to other transmission requests based on the TIME_QUEUED of the Transmission Customer’s ORIGINAL request for service.

013-2.6.5 REDIRECT Requests

The REDIRECT request is submitted by an existing firm point-to-point Transmission Customer to request the use of alternate points of receipt and/or delivery from the Primary Provider. By definition, the Seller in a REDIRECT request must be the Primary Provider even if those rights being redirected were acquired from another Transmission Customer via resale or transfer.

The following Standards set forth the requirements for submission of REDIRECT requests on either a Firm or Non-Firm basis.

013-2.6.5.1 REDIRECT on a Firm Basis

A Transmission Customer holding confirmed firm point-to-point transmission rights may request the use of those rights on alternate points of receipt and/or delivery on a firm basis by submission of a REDIRECT request to the Primary Provider as Seller. The following information must be submitted by the Transmission Customer in the REDIRECT request via the *transrequest* template.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be REDIRECT
RELATED_REF	Must identify by ASSIGNMENT_REF a confirmed transmission service reservation for firm point-to-point service held by the submitting Transmission Customer
SELLER_CODE	Must match PRIMARY_PROVIDER_CODE
SELLER_DUNS	Must match PRIMARY_PROVIDER_DUNS
PATH	Must represent the new transmission service points being requested
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must represent a set of valid transmission service attributes for firm point-to-point service offered by the Primary Provider and being requested on the new service points by the Transmission Customer
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	Must specify the requested start of transmission service and must be within the bounds of START_TIME specified in the reservation identified in RELATED_REF
START_TIME	

Data Element	Restriction/Requirement
STOP_TIME	Must specify the requested stop/end of transmission service and must be within the bounds of STOP_TIME specified in the reservation identified in RELATED_REF, and with START_TIME must represent a valid interval of service for the firm point-to-point service being requested
CAPACITY_REQUESTED	Must specify the amount of transmission capacity being requested
BID_PRICE	Should specify the price for the service being requested; may be null

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

The Primary Provider shall evaluate each REDIRECT on a Firm basis as any other new request for firm point-to-point transmission service. Primary Provider business practices establish the requirements for service duration, submission time, evaluation time, confirmation time, etc.

OASIS or Primary Provider procedures should verify that the transmission reservation identified in RELATED_REF meets all the requirements to support the redirect of transmission rights to the new service points. This should include the validation that the current rights, the Capacity Available for Redirect, held on that reservation in the amount of the REDIRECT over time have not been encumbered by any other confirmed redirects, resales, schedules, etc. This capacity validation may occur at any point in the request process, but shall always be performed prior to setting the REDIRECT STATUS to CONFIRMED.

Once CONFIRMED, the transmission rights held on the RELATED_REF reservation in the amount of the REDIRECT shall be permanently released by the Primary Provider and conveyed to the REDIRECT reservation. The only mechanism for the Transmission Customer to return to the original points of receipt and/or delivery is to submit another REDIRECT request.

The impact on ATC for the reservation identified by RELATED_REF shall be released and the impact of the REDIRECT transaction on ATC shall be accounted for in the amount and over time of the redirect simultaneously.

The impact of the REDIRECT transaction on the reservation(s) identified by RELATED_REF shall be posted and viewable using the **reduction** template.

013-2.6.5.2 REDIRECT on a Non-Firm Basis

A Transmission Customer holding confirmed firm point-to-point transmission rights may request the use of those rights on alternate points of receipt and/or delivery on a non-firm basis by submission of a REDIRECT request to the Primary Provider as Seller. The following information must be submitted by the Transmission Customer in the REDIRECT request via the *transrequest* template.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be REDIRECT
RELATED_REF	Must identify by ASSIGNMENT_REF a confirmed transmission service reservation for firm point-to-point service held by the submitting Transmission Customer
SELLER_CODE	Must match PRIMARY_PROVIDER_CODE
SELLER_DUNS	Must match PRIMARY_PROVIDER_DUNS
PATH	Must represent the new transmission service points being requested
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must be HOURLY
TS_CLASS	Must be SECONDARY
TS_TYPE	Must be POINT_TO_POINT
TS_PERIOD	Must be FULL_PERIOD
TS_WINDOW	Must be FIXED
TS_SUBCLASS	Must be null
START_TIME	Must specify the requested start of transmission service and must be within the bounds of START_TIME specified in the reservation identified in RELATED_REF
STOP_TIME	Must specify the requested stop/end of transmission service and must be within the bounds of STOP_TIME specified in the reservation identified in RELATED_REF, and with START_TIME must represent a valid interval of service for the firm point-to-point service being requested
CAPACITY_REQUESTED	Must specify the amount of transmission capacity being requested

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

Primary Provider business practices establish the requirements for service duration, submission time, evaluation time, confirmation time, etc.

OASIS or Primary Provider procedures should verify that the transmission reservation identified in RELATED_REF meets all the requirements to support the redirect of transmission rights to the new service points. This should include the validation that the current rights, the Capacity Available for Redirect, held on that reservation in the amount of the REDIRECT over time have not be encumbered by any other confirmed redirects, resales, schedules, etc. This capacity validation may occur at any point in the request process, but shall always be performed prior to setting the REDIRECT STATUS to CONFIRMED.

Once CONFIRMED, the transmission rights held on the RELATED_REF reservation in the amount of the REDIRECT shall be removed from the Capacity Available for Redirect on that reservation. Should the Transmission Customer wish to restore the rights to schedule (or redirect, resell, etc.) under the RELATED_REF reservation, they must submit a RELINQUISH request to the Primary Provider to release the capacity held under the REDIRECT request and reinstate that capacity on the original service points. The Primary Provider must accommodate this release of capacity back to the original service points, and shall through OASIS or Primary Provider procedures insure that honoring this release of capacity and subsequent scheduling under the Transmission Customer’s original firm reservation will not unduly cause a reliability problem.

The impact on ATC for the reservation identified by RELATED_REF and the impact of the REDIRECT transaction on ATC shall be accounted for to both preserve the ability of the Transmission Customer to return to the original firm path and reflect the fact that the redirected capacity on the RELATED_REF and REDIRECT reservations cannot be scheduled simultaneously.

The impact of the REDIRECT transaction on the reservation(s) identified by RELATED_REF shall be posted and viewable using the *reduction* template.

013-2.6.6 **RELINQUISH Requests**

The RELINQUISH request is submitted in association with a REDIRECT request on a non-firm basis to indicate the Transmission Customer’s desire to return the capacity rights held on the REDIRECT to the parent reservation specified in the RELATED_REF of that REDIRECT request. The following are the specific requirements for the RELINQUISH request submitted via the *transrequest* template.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be RELINQUISH
RELATED_REF	Must specify the ASSIGNMENT_REF of a confirmed REDIRECT on a non-firm basis held by the Transmission Customer
SELLER_CODE	Must match PRIMARY_PROVIDER_CODE
SELLER_DUNS	Must match PRIMARY_PROVIDER_DUNS
PATH	Must represent the same corresponding service

Data Element	Restriction/Requirement
POINT_OF_RECEIPT	points in the reservation/request specified in RELATED_REF
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must represent the same set of valid transmission service attributes specified in RELATED_REF
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	
START_TIME	Must specify start of the interval for the release of capacity from RELATED_REF
STOP_TIME	Must specify stop/end of the interval for the release of capacity from RELATED_REF
CAPACITY_REQUESTED	Must specify the capacity to be released from RELATED_REF over START_TIME to STOP_TIME interval and restored to the parent reservation (i.e., RELATED_REF's RELATED_REF)
PRECONFIRMED	Must be YES

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

When accepted by the Primary Provider, OASIS or Primary Provider procedures must remove the capacity held on the REDIRECT reservation over the time interval specified, and reinstate that capacity to the CAPACITY_AVAILABLE for REDIRECT of the parent firm reservation.

The combined impact of the REDIRECT and RELATED_REF reservations on ATC shall be reinstated to reflect the impact of the capacity relinquished back to the RELATED_REF reservation.

Note that the RELINQUISH request does not in itself represent a reservation for transmission service, but merely documents an action taken against an existing transmission service reservation.

013-2.6.7

RESALE Requests

RESALE requests may be submitted by the Transmission Customer (Assignee) to arrange for the sale or assignment of scheduling rights from another Transmission Customer (Reseller). Resellers and Assignees are not required to use OASIS to arrange for such sale or assignment of scheduling rights. However, the Reseller is required to notify the Primary Provider and post information documenting the (re)sale on the Primary Provider's OASIS where the rights were originally acquired.

The following are specific requirements for OASIS service requests with REQUEST_TYPE of RESALE. If REQUEST_TYPE is not specified by the Transmission Customer and SELLER_CODE and SELLER_DUNS are not the same as PRIMARY_PROVIDER_CODE and PRIMARY_PROVIDER_DUNS, OASIS shall default REQUEST_TYPE to RESALE.

013-2.6.7.1 RESALE on OASIS

Resale transactions conducted on OASIS shall adhere to the Basic OASIS Request Processing requirements where the Reseller is identified as the Seller and the Assignee identified as the Transmission Customer.

The Assignee (Transmission Customer) initiates the resale of scheduling rights by submitting the following required information on OASIS via the **transrequest** template. Data elements not listed are optional. There shall be no requirement imposed by OASIS that the Reseller post any corresponding offer of service for sale on that OASIS.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be RESALE
SELLER_CODE	Must identify the Reseller (registered entity other than the Primary Provider)
SELLER_DUNS	Must identify the Reseller
PATH	Must represent the transmission service points being requested
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	
START_TIME	Must specify the requested start of transmission service
STOP_TIME	Must specify the requested stop/end of transmission service
CAPACITY_REQUESTED	Must specify the amount of transmission capacity being requested
BID_PRICE	Should specify the price being requested; may be null

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

If the RESALE meets all OASIS validation requirements, the RESALE request shall be posted on OASIS as a QUEUED transmission service request. It is the Reseller’s obligation to respond to RESALE requests submitted to them on OASIS. Resellers may register for dynamic notification of these events if the Primary Provider’s OASIS implementation provides for such functionality.

The Reseller may act on the RESALE request using any of the processes defined in Section 2.3 Basic OASIS Transaction Handling, Section 2.6.1.1 Offering of Partial Service, and/or Section 2.6.1.2 Negotiation of Price. At some point in this process, the Reseller must identify those transmission service reservations whose scheduling rights are to be conferred to the Assignee as follows.

Data Element	Restriction/Requirement
REASSIGNED_REF	Collectively represent those confirmed transmission reservations held by the Reseller whose rights to schedule transmission capacity over time are to be conferred to the Assignee. Each reservation's service points and transmission service attributes must correspond with those specified in the RESALE request
REASSIGNED_CAPACITY	
REASSIGNED_START_TIME	
REASSIGNED_STOP_TIME	

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

Business practices may dictate that this information be supplied and validated at the time the RESALE request STATUS is set to either ACCEPTED or COUNTEROFFER. Business practices may also dictate the types of services that may be resold and/or aggregated in support of the resale as referenced by the REASSIGNED_REF data element.

Once the RESALE request is finally CONFIRMED by the Assignee, OASIS or Primary Provider procedures should (again) insure that every reservation represented in the REASSIGNED_REF data element meet the following requirements:

- Represent valid confirmed transmission service reservations held by the Reseller
- There is sufficient unscheduled or otherwise encumbered (e.g., other RESALE, REDIRECT, etc., transactions) transmission capacity to meet REASSIGNED_CAPACITY over REASSIGNED_START_TIME to REASSIGNED_STOP_TIME
- Service points, e.g., PATH, etc., correspond correctly with those specified in the RESALE
- Transmission service attributes, e.g., TS_CLASS, etc., correspond correctly with those specified in the RESALE
- The sum of REASSIGNED_CAPACITY over time for all REASSIGNED_REF reservations satisfies the RESALE requirements as specified in CAPACITY_GRANTED, START_TIME and STOP_TIME.

If all of these requirements are met, OASIS or Primary Provider procedures shall convey the specified transmission rights from the Reseller's reservation to the Assignee's reservation. The transmission capacity resold shall not be available to the Reseller to schedule, resell, redirect, or otherwise use.

The impact of the RESALE transaction on the reservation(s) identified by REASSIGNED_REF shall be posted and viewable using the **reduction** template.

If the Primary Provider determines the posted RESALE does not comply with their business practices for such transactions, they shall have the right to reset the RESALE STATUS to ANNULLED. OASIS or Primary Provider procedures shall then reinstate all reassignments of capacity over time that were designated by the Assignee to the parent (REASSIGNED_REF) reservation(s) as appropriate. The Reseller setting the RESALE STATUS to DISPLACED or ANNULLED shall also reinstate all reassignments of capacity over time that were designated by the Assignee to the parent (REASSIGNED_REF) reservation(s) as appropriate.

013-2.6.7.2 RESALE off OASIS

Resale transactions arranged between Reseller and Assignee off OASIS must be documented on OASIS by the Reseller using the **transassign** template. Transactions arranged off OASIS do not follow the basic request processing steps and shall be posted directly as CONFIRMED transactions.

The following information is required to be supplied by the Reseller.

Data Element	Restriction/Requirement
REQUEST_TYPE	Must be RESALE
CUSTOMER_CODE	Must identify the Assignee
CUSTOMER_DUNS	Must identify the Assignee
PATH	Must represent the same corresponding service points as contained in every one of the reservation/request(s) specified by REASSIGNED_REF
POINT_OF_RECEIPT	
POINT_OF_DELIVERY	
SOURCE	
SINK	
SERVICE_INCREMENT	Must represent the same corresponding transmission service attributes as contained in every one of the reservation/request(s) specified by REASSIGNED_REF
TS_CLASS	
TS_TYPE	
TS_PERIOD	
TS_WINDOW	
TS_SUBCLASS	
START_TIME	Must specify the start of transmission service arranged between Reseller and Assignee
STOP_TIME	Must specify the stop/end of transmission service arranged between Reseller and Assignee
CAPACITY_REQUESTED	Must be equal to the amount of capacity originally reserved/requested by the Assignee
CAPACITY_GRANTED	Must be equal to the amount of capacity ultimately resold to the Assignee
OFFER_PRICE	Must be the ultimate price arranged for service between Reseller and Assignee
REASSIGNED_REF	Collectively represent those confirmed transmission reservations held by the Reseller whose rights to schedule transmission capacity over time are to be conferred to the Assignee
REASSIGNED_CAPACITY	
REASSIGNED_START_TIME	
REASSIGNED_STOP_TIME	

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

OASIS or Primary Provider procedures should insure that every reservation represented in the REASSIGNED_REF data element meet the following requirements:

- Represent valid confirmed transmission service reservations held by the Reseller
- There is sufficient unscheduled or otherwise encumbered (e.g., other RESALE, REDIRECT, etc., transactions) transmission capacity to meet REASSIGNED_CAPACITY over REASSIGNED_START_TIME to REASSIGNED_STOP_TIME
- Service points, e.g., PATH, etc., correspond correctly with those specified in the RESALE
- Transmission service attributes, e.g., TS_CLASS, etc., correspond correctly with those specified in the RESALE
- The sum of REASSIGNED_CAPACITY over time for all REASSIGNED_REF reservations satisfies the RESALE requirements as specified in CAPACITY_GRANTED, START_TIME and STOP_TIME.

Business practices may dictate the types of services that may be resold and/or aggregated in support of the resale as referenced by the REASSIGNED_REF data element.

If all of these requirements are met, OASIS or Primary Provider procedures shall convey the specified transmission rights from the Reseller's reservation to the Assignee's reservation. The transmission capacity resold shall not be available to the Reseller to schedule, resell, redirect, or otherwise use.

The impact of the RESALE transaction on the reservation(s) identified by REASSIGNED_REF shall be posted and viewable using the **reduction** template.

If the Primary Provider determines the posted RESALE does not comply with their business practices for such transactions, they shall have the right to reset the RESALE STATUS to ANNULLED. OASIS or Primary Provider procedures shall then reinstate all reassignments of capacity over time that were designated by the Assignee to the parent (REASSIGNED_REF) reservation(s) if appropriate. The Reseller setting the RESALE STATUS to DISPLACED or ANNULLED shall also reinstate all reassignments of capacity over time that were designated by the Assignee to the parent (REASSIGNED_REF) reservation(s) as appropriate.

013-3 SPECIFIC TEMPLATE IMPLEMENTATION

013-3.1 REGISTERED TEMPLATE DATA ELEMENTS

Certain OASIS defined templates contain data elements that are identified as taking on values registered by the Primary Provider, e.g., **reduction**, **systemdata**, **security**, etc. These registered values shall be included in the Energy Industry Registry when this registry is made publicly available.

In addition to public registration (when supported), each Primary Provider using a registered value for any OASIS data element shall provide information in their posted business practices as to each of these data element values along with a detailed description and example of how the data element will be used. This information shall be made available on OASIS.

013-3.2 SCHEDULEDETAIL

The **scheduledetail** template shall be used to post specific information related to the scheduled usage of reserved transmission service.

For (transmission) schedules derived from implemented electronic tags (e-Tags) submitted in accordance with the North American Electric Reliability Corporation (NERC) Electronic Tagging Functional Specification, (ver.1.8.0) the following information must be posted on OASIS.

From the physical path segment of the e-Tag associated with the Primary Provider:

Data Element	Restriction/Requirement
TRANSACTION_ID	The full e-Tag transaction identifier, including the GCA, creating PSE and LCA codes
PATH_NAME	Optional; defined by the Primary Provider based on POR/POD and transmission services used to support the schedule.
POINT_OF_RECEIPT	POR as identified in the e-Tag physical path
POINT_OF_DELIVERY	POD as identified in the e-Tag physical path
GCA_CODE	Registered acronym for the generating control area (balancing authority)
LCA_CODE	Registered acronym for the load control area (balancing authority)
SOURCE	Registered value of the source from the e-Tag located within the GCA
SINK	Registered value of the sink from the e-Tag located within the LCA
SCHEDULE_PRIORITY	The effective curtailment priority that will be used by the Primary Provider in assessing any curtailment action that may be taken against the schedule.
START_TIME/STOP_TIME	The time interval associated with the information associated with this segment of the schedule.

Data Element	Restriction/Requirement
SCHEDULE_REQUESTED	The value from the PSE Market Level profile information contained in the e-Tag
SCHEDULE_GRANTED	The actual MW level to which the e-Tag was scheduled; for block schedules, SCHEDULE_GRANTED should always be the lower of SCHEDULE_REQUESTED and SCHEDULE_LIMIT; for dynamic schedules SCHEDULE_GRANTED may be higher than SCHEDULE_REQUESTED.

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

For each start/stop segment of the posted schedule, the following information shall be provided for each transmission service reservation that is used to support that segment of the schedule. There may be one or more transmission service reservations used to support a given schedule segment. These “stacked” reservations shall be communicated through continuation records as defined in the OASIS S&CP (WEQ-002).

Data Element	Restriction/Requirement
ASSIGNMENT_REF	The unique OASIS identifier assigned to the reservation supporting the schedule
SELLER_CODE SELLER_DUNS	Identification of the Seller as listed in the transmission service reservation
CUSTOMER_CODE CUSTOMER_DUNS	Identification of the Transmission Customer as listed in the transmission service reservation
AFFILIATE_FLAG	Identification of the reservation as being made by an affiliate of the Primary Provider
SERVICE_INCREMENT TS_CLASS TS_TYPE TS_PERIOD TS_WINDOW TS_SUBCLASS NERC_CURTAILMENT_PRIORITY OTHER_CURTAILMENT_PRIORITY	The transmission service attributes and curtailment priority information as specified in the transmission service reservation
CAPACITY_USED	The actual MWs of reserved capacity used in support of the schedule derived from the transmission allocation information as specified in the e-Tag

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

If the tagged transaction has been subject to a Reliability Adjustment the following information shall be supplied. This is typically, but not necessarily, indicated by SCHEDULE_GRANTED being less than SCHEDULE_REQUESTED.

Data Element	Restriction/Requirement
PROVIDER_ACTION	As specified in the OASIS Data Dictionary, text descriptive of the action being taken by the Primary Provider, e.g., CURTAILMENT.
SCHEDULE_LIMIT	The value of the Reliability Limit set against the tagged transaction by any Reliability Entity over this segment of the schedule
CURTAILMENT_OPTIONS	Optional; Primary Provider supplied description of options that may be available to the Transmission Customer, such as redispatch
SECURITY_REF	Optional; If the reliability adjustment was the result of a security event that is posted on OASIS via the security template, this shall be set to the OASIS unique identifier assigned to that posting
INITIATING_PARTY RESPONSIBLE_PARTY PROCEDURE_NAME PROCEDURE_LEVEL FACILITY_LOCATION FACILITY_NAME FACILITY_CLASS FACILITY_LIMIT_TYPE	Optional; If the reliability adjustment was the result of a security event that is posted on OASIS via the security template, these data elements will be reported as they appear in that associated security event posting

Note: Elements are listed on basis of importance, which may be different from the order required in the template.

013-4

EXAMPLE IMPLEMENTATION

013-4.1

FILE REQUEST AND FILE DOWNLOAD EXAMPLES

The following standards provide examples for the implementation of file request and download interactions that must be supported by OASIS. In these examples, the end-of-line (eol) character is represented by the character, "␣". This symbol may appear different on displays or printouts. Note that any leading or trailing spaces within each data record shown were inserted to facilitate word-wrapping of long records and must not appear in the actual formatted data files returned by OASIS unless they are contained within double quotes.

013-4.1.1 File Example for Hourly Offering

Example of the request to Primary Provider, AAA, and response for Seller, WXYZ, for PATH_NAME "W/AAA/ABC/" for April 10, 1996, from 8 a.m. to 3 p.m. (Note that the PATH_NAME consists of a REGION_CODE, PRIMARY_PROVIDER_CODE, PATH_CODE, and an OPTIONAL_CODE, separated with a slash, "/".)

The VERSION for this release is 1.4. The request is in the form of a URL query string and the response is an ASCII delimited file.

1. Query

```
http://(OASIS Node name)/OASIS/AAA/data/transoffering?
ver=1.4&templ=transoffering&fmt=data&pprov=AAA
&pprovduns=123456789&path=W/AAA/ABC//&seller=WXYZ
&selduns=987654321&POR=aaa&POD=bbb&servinre=hourly&
TSCCLASS1=firm&TSCCLASS2=non-firm&tz=PD
&stime=19960410080000PD&sptime=19960410150000PD
```

2. Response Data

```
REQUEST-STATUS=200. (Successful)
TIME_STAMP=19960409113526PD
VERSION=1.4.
TEMPLATE=transoffering.
OUTPUT_FORMAT=DATA

PRIMARY_PROVIDER_CODE=AAA.
PRIMARY_PROVIDER_DUNS=123456789.
DATA_ROWS=14.

COLUMN_HEADERS=TIME_OF_LAST_UPDATE,SELLER_CODE,
SELLER_DUNS,PATH_NAME,POINT_OF_RECEIPT,
POINT_OF_DELIVERY,INTERFACE_TYPE,OFFER_START_TIME,
OFFER_STOP_TIME,START_TIME,STOP_TIME,CAPACITY,
SERVICE_INCREMENT,TS_CLASS,TS_TYPE,TS_PERIOD,
TS_WINDOW,TS_SUBCLASS,ANC_SVC_REQ,SALE_REF,
POSTING_REF,CEILING_PRICE,OFFER_PRICE,PRICE_UNITS,
SERVICE_DESCRIPTION,NERC_CURTAILMENT_PRIORITY,
OTHER_CURTAILMENT_PRIORITY,SELLER_NAME,
SELLER_PHONE,SELLER_FAX,SELLER_EMAIL,
SELLER_COMMENTS.
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,AAA,BBB,E,
19960402080000PD,19960410080000PD,19960410080000PD,
19960410090000PD,300,HOURLY,FIRM,POINT_TO_POINT,
OFF_PEAK,FIXED,,,N/A,5673,1.5,1.35,$/MW-Hour,N/A,7,,WXYZ
Marketer,888-789-4321,,10%DISCOUNT.
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,AAA,BBB,E,
19960402080000PD,19960410080000PD,19960410080000PD,
```

19960410090000PD,300, HOURLY, NON-FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5675,1.5,1.35, \$/MW-Hour,N/A,2, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410090000PD,
19960410100000PD,300, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5676,1.5,1.35, \$/MW-Hour,N/A,7, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410090000PD,
19960410100000PD,300, HOURLY, NON-FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5682,1.5,1.35, \$/MW-Hour,N/A,2, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410100000PD,
19960410110000PD,300, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5688,1.5,1.35, \$/MW-Hour,N/A,7, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410100000PD,
19960410110000PD,300, HOURLY, NON-FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5689,1.5,1.35, \$/MW-Hour,N/A,2, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410110000PD,
19960410120000PD,300, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5693,1.5,1.35, \$/MW-Hour,N/A,7, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410110000PD,
19960410120000PD,300, HOURLY, NON-FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5694,1.5,1.35, \$/MW-Hour,N/A,2, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

...

...

...

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410140000PD,
19960410150000PD,300, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5699,1.5,1.35, \$/MW-Hour,N/A,7, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

19960409030000PD, WXYZ,987654321, W/AAA/ABC//, AAA, BBB, E,
19960402080000PD, 19960410080000PD, 19960410140000PD,
19960410150000PD,300, HOURLY, NON-FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, N/A,5702,1.5,1.35, \$/MW-Hour,N/A,2, , WXYZ
Marketer, 888-789-4321, , , 10% DISCOUNT.┘

013-4.1.2 File Example for Hourly Schedule Data

This example shows a request for the hourly schedule data from Primary Provider, AAA, related to the Seller, WXYZ, for the period 10 a.m. to 3 p.m. on April 10, 2000.

There are two identical requests examples using two slightly different methods. The first request is using a HTTP URL request string through an HTML GET method. The second request is a similar example using `fetch_http` from a file using a POST method.

1. Query

URL Request (HTTP method=GET)

```
http://(OASIS Node name)/OASIS/aaaa/data/scheduledetail? ver=1.4&
pprov=AAA& templ=scheduledetail& fmt=data &pprovduns=123456789
&path=W/AAA/ABC//& seller=WXYZ &por=BBB &pod=CCC& tz=PD&
stime=20000410100000PD& sptime=20000410150000PD
```

URL Request (HTTP method=POST)

```
$ fetch_http http://(OASIS Node name)/OASIS/aaaa/data/OASISdata -f
c:/OASIS/wxyz/upload/infile.txt Where in-file.txt contains the following:
ver=1.4& pprov=AAA& templ=scheduledetail& fmt=data
&pprovduns=123456789 &path=W/AAA/ABC//& seller=WXYZ
&por=BBB &pod=CCC& tz=PD& stime=20000410100000PD&
sptime=20000410150000PD
```

2. Response Data

```
REQUEST_STATUS=200.␣
ERROR_MESSAGE=No error. ␣
TIME_STAMP=20000410160523ES.␣
VERSION=1.4.␣
TEMPLATE=scheduledetail.␣
OUTPUT_FORMAT=DATA.␣
PRIMARY_PROVIDER_CODE=AAAA.␣
PRIMARY_PROVIDER_DUNS=123456789.␣
RETURN_TZ=PD.␣
DATA_ROWS=3.␣
COLUMN_HEADERS=CONTINUATION_FLAG,
TIME_OF_LAST_UPDATE, SCHEDULE_REF, TRANSACTION_ID,
PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY,
GCA_CODE, LCA_CODE, SOURCE, SINK, SCHEDULE_PRIORITY,
START_TIME, STOP_TIME, SCHEDULE_REQUESTED,
SCHEDULE_GRANTED, ASSIGNMENT_REF, SELLER_CODE,
SELLER_DUNS, CUSTOMER_CODE, CUSTOMER_DUNS,
AFFILIATE_FLAG, SERVICE_INCREMENT, TS_CLASS, TS_TYPE,
TS_PERIOD, TS_WINDOW, TS_SUBCLASS,
NERC_CURTAILMENT_PRIORITY,
OTHER_CURTAILMENT_PRIORITY, CAPACITY_USED,
```

```

PROVIDER_ACTION, SCHEDULE_LIMIT, CURTAILMENT_OPTIONS,
SECURITY_REF, INITIATING_PARTY, RESPONSIBLE_PARTY,
PROCEDURE_NAME, PROCEDURE_LEVEL, FACILITY_LOCATION,
FACILITY_NAME, FACILITY_CLASS, FACILITY_LIMIT_TYPE ↓
N, 20000409030000PD,12345, BBB_MKTATAGCODE_CCC,
W/AAA/ABC//, BBB, CCC, BBB,CCC,GENX,LOADY,2,
20000410100000PD, 20000410110000PD,280,280,856743,
wxyz,987654321, WXYZAA,987654322, Y, HOURLY, NON_FIRM,
POINT_TO_POINT, OFF_PEAK, FIXED, ,2, ,300,,,,,,,,, ↓
N, 20000409030000PD,12346, BBB_MKTATAGCODE_CCC,
W/AAA/ABC//, BBB, CCC, BBB,CCC,GENX,LOADY,2,
20000410130000PD,
20000410140000PD,295,295,856743,wxyz,987654321,
WXYZAA,987654322, Y, HOURLY, NON_FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED, ,2, ,300,,,,,,,,, ↓
N, 20000409030000PD,12347, BBB_MKTATAGCODE_CCC,
W/AAA/ABC//, BBB, CCC, BBB,CCC,GENX,LOADY,2,
20000410140000PD,
20000410150000PD,300,300,856743,wxyz,987654321,
WXYZAA,987654322, Y, HOURLY, NON_FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED, ,2, ,300,,,,,,,,, ↓
    
```

013-4.1.3

Transmission Customer Posting a Transmission Service Offering

This example shows how a Transmission Customer would post for sale the transmission service that was purchased previously. The Seller would create a file and upload the file using the FETCH_HTTP program to send a file to the OASIS Node of the Primary Provider.

1. Input:

```

VERSION=1.4.↓
TEMPLATE=transpost.↓
OUTPUT_FORMAT=DATA ↓
PRIMARY_PROVIDER_CODE=AAA.↓
PRIMARY_PROVIDER_DUNS=123456789.↓
DATA_ROWS=1.↓
COLUMN_HEADERS=PATH_NAME, POINT_OF_RECEIPT,
POINT_OF_DELIVERY, INTERFACE_TYPE, CAPACITY,
SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD,
TS_WINDOW, TS_SUBCLASS, ANC_SVC_REQ, START_TIME,
STOP_TIME, OFFER_START_TIME, OFFER_STOP_TIME,
SALE_REF, OFFER_PRICE, SERVICE_DESCRIPTION,
SELLER_COMMENTS.↓
W/AAA/ABC//, , , E,150, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, FIXED,,, 19960402080000PD, 19960410080000PD,
19960410080000PD,19960410150000PD, A123,0.9,N/A,"As Joe said,
""It is a good buy""" ↓
    
```

FETCH_HTTP Command to send posting \$ fetch_http http://(OASIS Node name)/OASIS/AAA/data/transrequest -f c:/OASIS/AAA/upload/post.txt

2. Response Data

```
REQUEST-STATUS=200 ␣ (Successful)
TIME_STAMP=19960409113526PD ␣
VERSION=1.4␣
TEMPLATE=transpost␣
OUTPUT_FORMAT=DATA ␣
PRIMARY_PROVIDER_CODE=AAA␣
PRIMARY_PROVIDER_DUNS=123456789␣
DATA_ROWS=1␣
COLUMN_HEADERS=RECORD_STATUS, POSTING_REF,
PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY,
INTERFACE_TYPE, CAPACITY, SERVICE_INCREMENT, TS_CLASS,
TS_TYPE, TS_PERIOD, TS_WINDOW, TS_SUBCLASS,
ANC_SVC_REQ, START_TIME, STOP_TIME, OFFER_START_TIME,
OFFER_STOP_TIME, SALE_REF, OFFER_PRICE,
SERVICE_DESCRIPTION, SELLER_COMMENTS,
ERROR_MESSAGE␣
200,3748123, W/AAA/ABC//, , , E,150, HOURLY, FIRM,
POINT_TO_POINT, OFF_PEAK, FIXED,,, 19960402080000PD,
19960410080000PD, 19960410080000PD,19960410150000PD,
A123,0.9,N/A,"As Joe said, ""It is a good buy""", No Error␣
```

013-4.1.4

Example of Re-aggregating Purchasing Services using Reassignment

The following examples do not show the complete template information, but only shows data values for those elements of the template of interest to the example.

- a. Transmission Customer #1, "BestE" requests the purchase of 150 MW Firm ATC for 8 a.m. to 5 p.m. for \$1.00 from a Primary Provider (*transrequest*).

```
TEMPLATE=transrequest
CUSTOMER_CODE=BestE
CAPACITY=150
TS_CLASS=FIRM
START_TIME=1996050708000000PD
STOP_TIME=1996050717000000PD
BID_PRICE=1.00
```

The OASIS assigns ASSIGNMENT_REF = 5000 on acknowledgment.

- b. Transmission Customer #1 purchases 120 MW ATC Non-firm for 3 p.m. to 9 p.m. for \$.90 (*transrequest*). The OASIS assigns the ASSIGNMENT_REF=5001 when the request for purchase is made and is shown in the acknowledgment.

```
TEMPLATE=transrequest
CUSTOMER_CODE=BestE
```


CAPACITY=120
TS_CLASS=NON-FIRM
START_TIME=1996050715000000PD
STOP_TIME=1996050721000000PD
BID_PRICE=1.05

- c. Transmission Customer #1 becomes Seller #1 and post the Transmission service of 100 MW ATC Non-firm capacity from 8 a.m. to 9 p.m. for resale at \$.90/MW-hour.

TEMPLATE=transpost
SELLER_CODE=BestE
CAPACITY=100
TS_CLASS=NON-FIRM
START_TIME=1996050708000000PD
STOP_TIME=1996050721000000PD
SALE_REF=BEST100
OFFER_PRICE=.90
SELLER_COMMENTS=aggregating two previous purchases

- d. Transmission Customer #2 then requests purchase of 100 MW Non-firm from Reseller #1 from 8 a.m. to 6 p.m. for \$0.90/MW-hour (*transrequest*).

TEMPLATE=transrequest
CUSTOMER_CODE=Whlsle
SELLER_CODE=BestE
CAPACITY=100
TS_CLASS=NON-FIRM
START_TIME=1996050708000000PD
STOP_TIME=1996050721000000PD
SALE_REF=BEST100
DEAL_REF=WPC100
BID_PRICE=.90
CUSTOMER_COMMENTS=Only need service until 6 p.m.

The OASIS provides the ASSIGNMENT_REF=5002 for this transaction.

- e. Seller informs the Primary Provider of the reassignment of the previous transmission rights when the Seller accepts the Transmission Customer purchase request (*transsell*).

TEMPLATE=transsell
CUSTOMER_CODE=Whlsle
SELLER_CODE=BestE
ASSIGNMENT_REF=5002
STATUS=Accepted
REASSIGNED_REF1=5000
REASSIGNED_CAPACITY1=100
REASSIGNED_START_TIME1=199605070800PD
REASSIGNED_STOP_TIME1=199605071700PD
REASSIGNED_REF2=5001
REASSIGNED_CAPACITY2=100
REASSIGNED_START_TIME2=199605071700PD
REASSIGNED_STOP_TIME2=199605071800PD

013-4.1.5 File Examples of the Use of Continuation Records

a. Basic Continuation Records

The first example of the use of Continuation Records is for the *transrequest* template submitted by a Transmission Customer for purchase of a transmission reservation spanning 16 hours from 06:00 to 22:00 with "ramped" demand at beginning and end of time period. Two additional reservations appear prior to and following the profile to demonstrate the handling of ASSIGNMENT_REF by the OASIS Node.

Only the following fields may be redefined in a continuation record for the *transrequest* template: CAPACITY_GRANTED, START_TIME, STOP_TIME. Specification of any values corresponding to COLUMN_HEADERS other than CAPACITY-GRANTED, START_TIME, and STOP_TIME will be ignored, however commas must be included to properly align the CAPACITY_GRANTED, START_TIME and STOP_TIME fields.

Input:

```

VERSION=1.4.
TEMPLATE=transrequest.
OUTPUT_FORMAT=DATA.
PRIMARY_PROVIDER_CODE=AEP.
PRIMARY_PROVIDER_DUNS=123456789.
RETURN_TZ=ES.
DATA_ROWS=7.
COLUMN_HEADERS=RECORD_STATUS, CONTINUATION_FLAG,
ASSIGNMENT_REF, SELLER_CODE, SELLER_DUNS, PATH_NAME,
POINT_OF_RECEIPT, POINT_OF_DELIVERY, SOURCE,
SINK,CAPACITY_REQUESTED, SERVICE_INCREMENT, TS_CLASS,
TS_TYPE, TS_PERIOD, TS_WINDOW, TS_SUBCLASS,
STATUS_NOTIFICATION,START_TIME,STOP_TIME,BID_PRICE,
PRECONFIRMED, ANC_SVC_LNK, POSTING_REF, SALE_REF,
REQUEST_REF, DEAL_REF, CUSTOMER_COMMENTS,
REQUEST_TYPE, RELATED_REF,ERROR_MESSAGE.
200, N,4389255, AEP,123456789, ABC/XY, CE, MECS,,35, DAILY, FIRM,
POINT_TO_POINT, FULL_PERIOD, FIXED,, pub/AEP/incoming,
20000423000000ES, 20000424000000ES,24.5, Y,
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 ,
S123, R765, D123, Standard daily reservation, ORIGINAL,, No Error.
200, N,4389258, AEP,123456789, ABC/XY, CE, AMPO,,5, HOURLY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
pub/AEP/incoming, 20000423060000ES, 20000423070000ES,2.5, Y,
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 ,
S123, R765, D123, First piece of profile spanning 5 records, ORIGINAL,,
No Error.
200, Y,4389258,,,,,,,,,10,,,,,,,,, , 20000423070000ES,
20000423080000ES,,,,,,,,, No Error.
    
```

200, Y,4389258,,,,,,15,,,,,, , 20000423080000ES,
 20000423200000ES,,,,,, No Error.␣
 200, Y,4389258,,,,,,10,,,,,, , 20000423200000ES,
 20000423210000ES,,,,,, No Error.␣
 200, Y,4389258,,,,,,5,,,,,, , 20000423210000ES,
 20000423220000ES,,,,,, No Error.␣
 200, N,4389264, AEP,123456789, ABC/XY, CE, MECS, , ,20, HOURLY,
 NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
 pub/AEP/incoming, 20000423040000ES, 20000423160000ES,2, Y,
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 ,
 S123, R765, D123, Standard hourly reservation after profiled reservation,
 ORIGINAL,, No Error.␣

Response:

REQUEST_STATUS=200.␣
 ERROR_MESSAGE=Successfully updated. ␣
 TIME_STAMP=20000422160523ES.␣
 VERSION=1.4.␣
 TEMPLATE=transrequest.␣
 OUTPUT_FORMAT=DATA.␣
 PRIMARY_PROVIDER_CODE=AEP.␣
 PRIMARY_PROVIDER_DUNS=123456789.␣
 RETURN_TZ=ES.␣
 DATA_ROWS=7.␣
 COLUMN_HEADERS=RECORD_STATUS, CONTINUATION_FLAG,
 SELLER_CODE, SELLER_DUNS, PATH_NAME, POINT_OF_RECEIPT,
 POINT_OF_DELIVERY, SOURCE, SINK,CAPACITY_REQUESTED,
 SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD,
 TS_WINDOW, TS_SUBCLASS,
 STATUS_NOTIFICATION,START_TIME,STOP_TIME,BID_PRICE,
 PRECONFIRMED, ANC_SVC_LNK, POSTING_REF, SALE_REF,
 REQUEST_REF, DEAL_REF, CUSTOMER_COMMENTS,
 REQUEST_TYPE, RELATED_REF,ERROR_MESSAGE.␣
 200, N, AEP,123456789, ABC/XY, CE, MECS,,,35, DAILY, FIRM,
 POINT_TO_POINT, FULL_PERIOD, FIXED,, pub/AEP/incoming,
 20000423000000ES, 20000424000000ES,24.5, Y,
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 ,
 S123, R765, D123, Standard daily reservation, ORIGINAL,, No Error.␣
 200, N, AEP,123456789, ABC/XY, CE, AMPO,,,5, HOURLY, NON-FIRM,
 POINT_TO_POINT, FULL_PERIOD, FIXED,, pub/AEP/incoming,
 20000423060000ES, 20000423070000ES,2.5, Y,
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 ,
 S123, R765, D123, First piece of profile spanning 5 records, ORIGINAL,,
 No Error.␣
 200, Y,,,,,,10,,,,,, , 20000423070000ES, 20000423080000ES,,,,,, No
 Error.␣
 200, Y,,,,,,15,,,,,, , 20000423080000ES, 20000423200000ES,,,,,, No
 Error.␣
 200, Y,,,,,,10,,,,,, , 20000423200000ES, 20000423210000ES,,,,,, No
 Error.␣

200, Y,,,,,5,,,,, , 20000423210000ES, 20000423220000ES,,,,, No Error.␣
 200, N, AEP,123456789, ABC/XY, CE, MECS, , ,20, HOURLY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,, pub/AEP/incoming, 20000423040000ES, 20000423160000ES,2, Y, SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, Standard hourly reservation after profiled reservation, ORIGINAL,, No Error.␣

b. Submission of Reassignment Information - Case 1:

A reservation request was submitted to the Reseller by the Transmission Customer for 20MW of Hourly Non-firm service from 04:00 to 16:00. Assume that Reseller has previously reserved service for the CE-VP path for Daily Firm in amount of 50 MW on 4/23 under ASSIGNMENT_REF=7019, and Hourly Non-Firm in amount of 10 MW from 08:00 to 20:00 on April 23, 2000, under ASSIGNMENT_REF=7880. Reseller must designate which transmission service rights are to be reassigned to Transmission Customer to satisfy the 20MW from 04:00 to 16:00. This reassignment information is conveyed by Reseller using the *transsell* template when the reservation request is ACCEPTED. At the SELLER's discretion, rights are assigned from the Non-firm reservation first (ASSIGNMENT_REF=7880) with the balance taken up by the Firm reservation (ASSIGNMENT_REF=7019).

The only fields allowed in "continuation" records for *transsell* template are REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME. Price may not be negotiated for each "segment" in a capacity profile.

Input:

VERSION=1.4.␣
 TEMPLATE=transsell.␣
 OUTPUT_FORMAT=DATA.␣
 PRIMARY_PROVIDER_CODE=AEP.␣
 PRIMARY_PROVIDER_DUNS=123456789.␣
 RETURN_TZ=ES.␣
 DATA_ROWS=3.␣
 COLUMN_HEADERS=CONTINUATION_FLAG, ASSIGNMENT_REF, START_TIME, STOP_TIME, OFFER_PRICE, CAPACITY_GRANTED, STATUS, STATUS_COMMENTS, ANC_SVC_LINK, ANC_SVC_REQ, COMPETING_REQUEST_FLAG, NEGOTIATED_PRICE_FLAG, SELLER_REF, SELLER_COMMENTS, RESPONSE_TIME_LIMIT, REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, REASSIGNED_STOP_TIME.␣
 N,8236, 20000423040000ES, 20000423160000ES,2.5,20, ACCEPTED, Status comments here,
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,
 SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, N,, S123, Seller comments here,,7019,20, 20000423040000ES, 20000423080000ES.␣
 Y,8236,,, , , , , , , ,7880,10, 20000423080000ES, 20000423160000ES.␣

Fields for CUSTOMER_NAME and SELLER_NAME were used to convey user names for subsequent resolution of contact information from user registration.

Input:

```
VERSION=1.4.␣
TEMPLATE=transassign.␣
OUTPUT_FORMAT=DATA.␣
PRIMARY_PROVIDER_CODE=AEP.␣
PRIMARY_PROVIDER_DUNS=123456789.␣
RETURN_TZ=ES.␣
DATA_ROWS=2.␣
COLUMN_HEADERS=CONTINUATION_FLAG, CUSTOMER_CODE,
CUSTOMER_DUNS, PATH_NAME, POINT_OF_RECEIPT,
POINT_OF_DELIVERY, SOURCE, SINK, CAPACITY_REQUESTED,
CAPACITY_GRANTED, SERVICE_INCREMENT, TS_CLASS, TS_TYPE,
TS_PERIOD, TS_WINDOW, TS_SUBCLASS, START_TIME, STOP_TIME,
OFFER_PRICE, ANC_SVC_LNK, POSTING_NAME, REASSIGNED_REF,
REASSIGNED_CAPACITY, REASSIGNED_START_TIME ,
REASSIGNED_STOP_TIME , SELLER_COMMENTS, SELLER_REF.␣
N, ACSTMR,987654321, , CE, VP,,,10,10, HOURLY, NON-FIRM,
POINT_TO_POINT, OFF_PEAK, FIXED,, 20000423000000ES,
20000423060000ES,2,
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, Jane Doe
,7019,10, 20000423000000ES, 20000423060000ES, Seller comments go
here, S123.␣
Y,,,,,,10,10,,,,, 20000423220000ES, 20000424000000ES,,,,7019,10,
20000423220000ES, 20000424000000ES,,.␣
```

Response:

```
REQUEST_STATUS=200.␣
ERROR_MESSAGE=Successfully updated. ␣
TIME_STAMP=20000422160523ES.␣
VERSION=1.4.␣
TEMPLATE=transassign.␣
OUTPUT_FORMAT=DATA.␣
PRIMARY_PROVIDER_CODE=AEP.␣
PRIMARY_PROVIDER_DUNS=123456789.␣
RETURN_TZ=ES.␣
DATA_ROWS=2.␣
COLUMN_HEADERS=RECORD_STATUS,CONTINUATION_FLAG,
ASSIGNMENT_REF, CUSTOMER_CODE, CUSTOMER_DUNS,
PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY, SOURCE,
SINK, CAPACITY_REQUESTED, CAPACITY_GRANTED,
SERVICE_INCREMENT, TS_CLASS, TS_TYPE,
TS_PERIOD, TS_WINDOW, TS_SUBCLASS, START_TIME, STOP_TIME,
OFFER_PRICE, ANC_SVC_LNK, POSTING_NAME, REASSIGNED_REF,
REASSIGNED_CAPACITY, REASSIGNED_START_TIME ,
REASSIGNED_STOP_TIME , SELLER_COMMENTS,
SELLER_REF,ERROR_MESSAGE.␣
```

200,N,572100523, ACSTMR,987654321, , CE, VP,,,10,10, HOURLY,
 NON-FIRM, POINT_TO_POINT, OFF_PEAK, FIXED,, 20000423000000ES,
 20000423060000ES,2,
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, Jane Doe
 ,7019,10, 20000423000000ES, 20000423060000ES, Seller comments go
 here, S123, No Error.␣
 200,Y,572100523,,,,,,10,10,,,,, 20000423220000ES,
 20000424000000ES,,,,7019,10, 20000423220000ES,
 20000424000000ES,, , No Error.␣

d. Query of Transmission Reservation Status:

The following typical response to a *transstatus* query might be delivered for April 23, 2000, based on prior examples. Note that the only fields returned in "continuation" records are, ASSIGNMENT_REF, CAPACITY_REQUESTED, CAPACITY_GRANTED, START_TIME, STOP_TIME, REASSIGNED_REF, REASSIGNED_CAPACITY, REASSIGNED_START_TIME, and REASSIGNED_STOP_TIME (price fields are debatable).

Input:

<appropriate query name/value pairs to return reservations for April 23, 2000>

Response:

REQUEST_STATUS=200.␣
 ERROR_MESSAGE=No error. ␣
 TIME_STAMP=20000423160523ES.␣
 VERSION=1.4.␣
 TEMPLATE=transstatus.␣
 OUTPUT_FORMAT=DATA.␣
 PRIMARY_PROVIDER_CODE=AEP.␣
 PRIMARY_PROVIDER_DUNS=123456789.␣
 RETURN_TZ=ES.␣
 DATA_ROWS=9.␣
 COLUMN_HEADERS=CONTINUATION_FLAG, ASSIGNMENT_REF,
 SELLER_CODE, SELLER_DUNS, CUSTOMER_CODE,
 CUSTOMER_DUNS, AFFILIATE_FLAG, PATH_NAME,
 POINT_OF_RECEIPT, POINT_OF_DELIVERY, SOURCE, SINK,
 CAPACITY_REQUESTED, CAPACITY_GRANTED,
 SERVICE_INCREMENT, TS_CLASS, TS_TYPE,
 TS_PERIOD,TS_WINDOW, TS_SUBCLASS,
 NERC_CURTAILMENT_PRIORITY, OTHER_CURTAILMENT_PRIORITY,
 START_TIME , STOP_TIME, CEILING_PRICE, OFFER_PRICE,
 BID_PRICE,PRICE_UNITS, PRECONFIRMED, ANC_SVC_LINK,
 ANC_SVC_REQ, POSTING_REF, SALE_REF, REQUEST_REF,
 DEAL_REF,IMPACTED,COMPETING_REQUEST_FLAG,REQUEST_TYP
 E,RELATED_REF, NEGOTIATED_PRICE_FLAG,
 STATUS,STATUS_NOTIFICATION, STATUS_COMMENTS,

TIME_QUEUED, RESPONSE_TIME_LIMIT, TIME_OF_LAST_UPDATE,
 PRIMARY_PROVIDER_COMMENTS,SELLER_REF,
 SELLER_COMMENTS, CUSTOMER_COMMENTS, SELLER_NAME,
 SELLER_PHONE, SELLER_FAX, SELLER_EMAIL, CUSTOMER_NAME,
 CUSTOMER_PHONE, CUSTOMER_FAX, CUSTOMER_EMAIL,
 REASSIGNED_REF, REASSIGNED_CAPACITY,
 REASSIGNED_START_TIME , REASSIGNED_STOP_TIME.↓
 N,8207, RSELLR,234567890, ACSTMR,987654321, N, , CE, VP, ,,10,10,
 HOURLY, FIRM, POINT_TO_POINT, OFF_PEAK,,,7,,
 20000423000000ES, 20000423060000ES,2.25,2,2, \$/MW, N,
 SC:(AEP:AR:121);RV:(AEP:AR:122);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,
 SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, ,S1235, , ,0, N, RESALE,, L,
 CONFIRMED,, , 20000422121354ES, , 20000422123054ES, TP
 Comments,, Seller comments go here, Customer comments, Joe Smith,
 (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-
 4567, (999)-123-8823,,7019,10, 20000423000000ES,
 20000423060000ES.↓
 Y,8207,,,,,,,,,10,10,,,,,,,,, 20000423220000ES,
 20000424000000ES,,,,,,,,,,,,,,,,,,,,,,,,,,,,,7019,10, 20000423220000ES,
 20000424000000ES.↓
 N,8234, AEP,123456789, CUSTMR,345678912, N, , CE, MECS, ,,35,35,
 DAILY, FIRM, POINT_TO_POINT,FULL_PERIOD,FIXED,,7,,
 20000423000000ES, 20000423060000ES,42,24.5,24.5, \$/MW, N,
 SC:(AEP:AR:123);RV:(AEP:AR:124);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,
 SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, P0123 , S123, R765, D123,0, N,
 ORIGINAL,, L, CONFIRMED, pub/AEP/incoming,, 20000422131354ES,
 20000423131354ES, 20000422133354ES, Standard daily reservation,,
 System Operator, Customer comments, Frank Orth, (999)-123-4567,
 (999)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-4567, (999)-123-
 8823,,,,, ↓
 N,8235, AEP,123456789, CUSTMR,345678912, N, , CE, AMPO, ,,5,5,
 HOURLY, NON-FIRM, POINT_TO_POINT,FULL_PERIOD,FIXED,,2,,
 20000423060000ES, 20000423070000ES,2.5,2.5,2.5, \$/MW, N,
 SC:(AEP:AR:125);RV:(AEP:AR:126);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,
 SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, P0123 , S123, R765, D123,0, N,
 ORIGINAL,,, CONFIRMED, pub/AEP/incoming,, 20000422160523ES,
 20000422170523ES, 20000422170523ES, Profile verified,, First piece,
 Customer comments, System Operator, (888)-123-4567, (888)-123-1231,
 jsmith@xyz.com, Jane Doe, (999)- 123-4567, (999)-123-8823,,,,, ↓
 Y,8235,,,,,,,,,10,10,,,,,,,,, 20000423070000ES,
 20000423080000ES,,,,,,,,,,,,,,,,,,,,,,,,,,,,, ↓
 Y,8235,,,,,,,,,15,15,,,,,,,,, 20000423080000ES,
 20000423200000ES,,,,,,,,,,,,,,,,,,,,,,,,,,,,, ↓
 Y,8235,,,,,,,,,10,10,,,,,,,,, 20000423200000ES,
 20000423210000ES,,,,,,,,,,,,,,,,,,,,,,,,,,,,, ↓
 Y,8235,,,,,,,,,5,5,,,,,,,,, 20000423210000ES,
 20000423220000ES,,,,,,,,,,,,,,,,,,,,,,,,,,,,, ↓
 N,8236, AEP,123456789, CUSTMR,345678912, N, , CE, VP, ,,20,20,
 HOURLY, NON_FIRM, POINT_TO_POINT,FULL_PERIOD,FIXED,,2,,
 20000424040000ES, 20000424160000ES,2.5,2.5,2.5, \$/MW, N,
 SC:(AEP:AR:127);RV:(AEP:AR:128);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,
 SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, P0123 , S123, R765, D123,0, N,

ORIGINAL,,, CONFIRMED, pub/AEP/incoming,, 20000422160723ES,
20000422170723ES, 20000422171523ES, Bid price refused,, Negotiated
OFFER_PRICE accepted,, Joe Smith, (888)-123-4567, (888)-123-1231,
jsmith@xyz.com, Jane Doe, (999)-123-4567, (999)-123-8823,,,,, ↵

013-4.1.6 **Examples of Negotiation of Price and Partial Service Offer**

013-4.1.6.1 Negotiation with Preconfirmation

- a. The Transmission Customer submits a PRECONFIRMED transmission service request using the **transrequest** template. Initially, the STATUS is set to QUEUED by the OASIS Node.
- b. The Seller has the option of setting STATUS via the **transsell** template to one of the following: INVALID, RECEIVED, STUDY, COUNTEROFFER, ACCEPTED, DECLINED, or REFUSED.
- c. The Seller has the option of entering a CAPACITY_GRANTED and setting the STATUS to COUNTEROFFER via the **transsell** template if the Seller can only provide partial service.
- d. If the Seller sets STATUS to ACCEPTED (and, as required by WEQ-013-2.2, the OASIS Node forces the Seller to set OFFER_PRICE equal to BID_PRICE as a condition to setting STATUS to ACCEPTED) and CAPACITY_GRANTED is equal to CAPACITY_REQUESTED, the OASIS Node will immediately set STATUS to CONFIRMED. (WEQ-013-2.2 requires the OASIS Node to set a null CAPACITY_GRANTED equal to CAPACITY_REQUESTED when STATUS is set to ACCEPTED.)
- e. The Transmission Customer may WITHDRAW request via **transcust** template at any time up to point where the Seller sets STATUS to ACCEPTED.
- f. Once the STATUS is CONFIRMED, the OFFER_PRICE and CAPACITY_GRANTED officially becomes the terms of the reservation.

013-4.1.6.2 Negotiations without Preconfirmation

- a. The Transmission Customer submits a transmission reservation request with the BID_PRICE less than the CEILING_PRICE via the **transrequest** template. Initially the STATUS is set to QUEUED by the OASIS Node.
- b. The Seller has the option of setting the STATUS via the **transsell** template to one of the following: INVALID, RECEIVED, STUDY, ACCEPTED, DECLINED, COUNTEROFFER, or REFUSED. If the STATUS is set to INVALID (due to invalid entries in the request), DECLINED (due to the Seller determining that the proposed price is not acceptable and further negotiations are not desired), or REFUSED (due to the unavailability of the requested service), the transmission reservation request is terminated.

- c. The Seller has the option of entering a `CAPACITY_GRANTED` and setting the `STATUS` to `COUNTEROFFER` via the ***transsell*** template if the Seller can only provide partial service.
- d. If the Seller set the `STATUS` to `RECEIVED` or `STUDY`, and determines that the `BID_PRICE` is too low, the Seller sets the `OFFER_PRICE` to the price desired, and sets the `STATUS` to `COUNTEROFFER` via the ***transsell*** template.
- e. The Transmission Customer agrees to the `OFFER_PRICE`, sets the `BID_PRICE` equal to the `OFFER_PRICE`, and sets the `STATUS` to `CONFIRMED` via the ***transcust*** template.
- f. The `OFFER_PRICE` and `CAPACITY_GRANTED` with the `STATUS` of `CONFIRMED` locks in the terms of the reservation.

013-4.1.6.3 Multiple Step Negotiations

- a. The Transmission Customer submits a transmission reservation request with the `BID_PRICE` less than the `CEILING_PRICE` via the ***transrequest*** template. Initially the `STATUS` is set to `QUEUED` by the OASIS Node.
- b. The Seller has the option of setting the `STATUS` via the ***transsell*** template to one of the following: `INVALID`, `RECEIVED`, `STUDY`, `ACCEPTED`, `DECLINED`, `COUNTEROFFER`, or `REFUSED`. If the `STATUS` is set to `INVALID`, `DECLINED`, or `REFUSED`, the transmission reservation request is terminated.
- c. The Seller has the option of entering a `CAPACITY_GRANTED` and setting the `STATUS` to `COUNTEROFFER` via the ***transsell*** template if the Seller can only provide partial service. If `ATC` changes before the request reaches the `STATUS` of `CONFIRMED`, Seller may change the `CAPACITY_GRANTED`.
- d. The Seller determines that the `BID_PRICE` is too low, sets the `OFFER_PRICE` to the desired value, and sets the `STATUS` to `COUNTEROFFER` via the ***transsell*** template.
- e. The Transmission Customer responds to the new `OFFER_PRICE` with an updated `BID_PRICE` and sets the `STATUS` to `REBID` for re-evaluation by the Seller.
- f. The Seller determines that the `BID_PRICE` now is acceptable, and sets the `STATUS` to `ACCEPTED` via the ***transsell*** template. The transition to `ACCEPTED` state requires the `OFFER_PRICE` to be set to the `BID_PRICE`: accepting a reservation with an `OFFER_PRICE` different from `BID_PRICE` would require the `STATUS` be set to `COUNTEROFFER` rather than `ACCEPTED` (see item c).
- g. The Transmission Customer agrees to the `OFFER_PRICE` and sets the `STATUS` to `CONFIRM` via the ***transcust*** template.

- h. The OFFER_PRICE and CAPACITY_GRANTED with the STATUS as CONFIRMED locks in the terms of the reservation.

013-4.1.6.4 Negotiations Declined by Seller

- a. The Transmission Customer submits a transmission reservation request with the BID_PRICE less than the CEILING_PRICE via the **transrequest** template. Initially the STATUS is set to QUEUED by the OASIS Node.
- b. The Seller has the option of setting the STATUS via the **transsell** template to one of the following: INVALID, RECEIVED, STUDY, ACCEPTED, DECLINED, COUNTEROFFER, or REFUSED. If the STATUS is set to INVALID, DECLINED, or REFUSED, the transmission reservation request is terminated.
- c. The Seller determines that the BID_PRICE is too low, sets OFFER_PRICE to his desired value, and sets STATUS to COUNTEROFFER via the **transsell** template.
- d. The Transmission Customer responds to OFFER_PRICE with updated BID_PRICE and sets the STATUS to REBID via the **transcust** template for re-evaluation by Seller.
- e. The Seller breaks off all further negotiations by setting the STATUS to DECLINED, indicating that the price is unacceptable and that he does not wish to continue negotiations.

013-4.1.6.5 Negotiations Withdrawn by Transmission Customer

- a. The Transmission Customer submits a transmission reservation request with the BID_PRICE less than the CEILING_PRICE via the **transrequest**. Initially the STATUS is set to QUEUED by the OASIS Node.
- b. The Seller has the option of setting the STATUS via the **transsell** template to one of the following: INVALID, RECEIVED, STUDY, ACCEPTED, DECLINED, COUNTEROFFER, or REFUSED. If the STATUS is set to INVALID, DECLINED, or REFUSED, the transmission reservation request is terminated.
- c. The Seller has the option of entering a CAPACITY_GRANTED and setting the STATUS to COUNTEROFFER via the **transsell** template if the Seller can only provide partial service.
- d. The Seller determines that the BID_PRICE is too low, sets the OFFER_PRICE to his desired value, and sets the STATUS to COUNTEROFFER via the **transsell** template.
- e. The Transmission Customer responds to the OFFER_PRICE with an updated BID_PRICE and sets the STATUS to REBID for re-evaluation by Seller.

- f. The Seller determines that the `BID_PRICE` is still too low, sets the `OFFER_PRICE` to another value, and sets `STATUS` to `COUNTEROFFER` via the ***transsell*** template.
- g. The Transmission Customer breaks off all further negotiations, either because the `OFFER_PRICE` or `CAPACITY_GRANTED` are unacceptable, by setting `STATUS` to `WITHDRAWN` (or the Transmission Customer/Seller could go through additional iterations of `REBID/COUNTEROFFER` until negotiations are broken off or the reservation is `CONFIRMED`).

013-4.1.6.6 Negotiations Superseded by Higher Priority Reservation

- a. The Transmission Customer submits a transmission reservation request with the `BID_PRICE` less than the `CEILING_PRICE` via the ***transrequest*** template. Initially the `STATUS` is set to `QUEUED` by the OASIS Node.
- b. The Seller has the option of setting the `STATUS` via the ***transsell*** template to one of the following: `INVALID`, `RECEIVED`, `STUDY`, `ACCEPTED`, `DECLINED`, `COUNTEROFFER`, or `REFUSED`. If the `STATUS` is set to `INVALID`, `DECLINED`, or `REFUSED`, the transmission reservation request is terminated.
- c. If the Seller determines that another reservation has higher priority and must displace this request, he sets the `STATUS` of this request to `SUPERSEDED` and the negotiations are terminated.
- d. However, if desired and permitted by the tariff, the Seller may set the `STATUS` of a request in any of these previous states (including `COUNTEROFFER` and `ACCEPTED`) to `COUNTEROFFER` with an `OFFER_PRICE` which could avoid the request being superseded, thus allowing the Transmission Customer the choice of being `SUPERSEDED` or accepting the proposed `OFFER_PRICE`.

013-4.1.7 **Audit Template examples**

The following examples are included to show the general type of audit report responses that could be expected to be returned by implementations of the audit reporting Templates as documented above.

013-4.1.7.1 Offerings

The following is an example of a hypothetical audit query for daily non-firm offerings to the "DDD" point of delivery for Monday August 17, 1998 (line breaks and indentations added to improve readability):

```
REQUEST_STATUS=200 ⌵  
ERROR_MESSAGE ⌵  
TIME_STAMP=19980821091601ES ⌵  
VERSION=1.4 ⌵  
TEMPLATE=transofferingaudit ⌵
```

```

OUTPUT_FORMAT=DATA ↓
PRIMARY_PROVIDER_CODE=WXYZ ↓
PRIMARY_PROVIDER_DUNS=78912345 ↓
RETURN_TZ=ES ↓
DATA_ROWS=14 ↓
COLUMN_HEADERS=RECORD_TYPE, TIME_OF_LAST_UPDATE,
MODIFYING_COMPANY_CODE, MODIFYING_NAME,
TIME_OF_LAST_UPDATE, SELLER_CODE, SELLER_DUNS, PATH_NAME,
POINT_OF_RECEIPT, POINT_OF_DELIVERY,
INTERFACE_TYPE, OFFER_START_TIME, OFFER_STOP_TIME, START_TIM
E, STOP_TIME, CAPACITY, SERVICE_INCREMENT,
TS_CLASS, TS_TYPE, TS_PERIOD, TS_WINDOW, TS_SUBCLASS,
ANC_SVC_REQ, SALE_REF, POSTING_REF, CEILING_PRICE,
OFFER_PRICE, PRICE_UNITS, SERVICE_DESCRIPTION,
NERC_CURTAILMENT_PRIORITY, OTHER_CURTAILMENT_PRIORITY,
SELLER_NAME, SELLER_PHONE, SELLER_FAX, SELLER_EMAIL,
SELLER_COMMENTS ↓
U,19980815131756ES, WXYZ, Jane Doe,19980815131756ES,
WXYZ,78912345, X/WXYZ/AAA-DDD//, AAA, DDD, E, 19980814000000ES,
19980817000000ES, 19980817000000ES, 19980818000000ES,800, DAILY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
SC:M;RF:M,,48732,102,85, $/MW-Day,,3,, Jane Doe,123-456-7813,123-456-
7801, doej@wxyz.com , ↓
U,19980815124022ES, WXYZ, Jane Doe,19980815124022ES,
WXYZ,78912345, X/WXYZ/AAA-DDD//, AAA, DDD, E, 19980814000000ES,
19980817000000ES, 19980817000000ES, 19980818000000ES,850, DAILY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
SC:M;RF:M,,48732,102,85, $/MW-Day,,3,, Jane Doe,123-456-7813,123-456-
780 1, doej@wxyz.com, ↓
U,19980814120018ES, WXYZ, Joe Smith,19980814120018ES,
WXYZ,78912345, X/WXYZ/AAA-DDD//, AAA, DDD, E, 19980814000000ES,
19980817000000ES, 19980817000000ES, 19980818000000ES,850, DAILY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
SC:M;RF:M,,48732,102,90, $/MW-Day,,3,, Joe Smith,123-456-7893,123-456-
7801 , smithj@wxyz.com , ↓
I,19980813171204ES, WXYZ, Supervisor,19980813171204ES,
WXYZ,78912345, X/WXYZ/AAA-DDD//, AAA, DDD, E, 19980814000000ES,
19980817000000ES, 19980817000000ES, 19980818000000ES,850, DAILY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
SC:M;RF:M,,48732,102,95, $/MW-Day,,3,, Supervisor,123-456-7890,123-456-
78 01 ,, ↓
U,19980815124022ES, WXYZ, Jane Doe,19980815124022ES,
WXYZ,78912345, X/WXYZ/BBB-DDD//, BBB, DDD, E, 19980814000000ES,
19980817000000ES, 19980817000000ES, 19980818000000ES,1200, DAILY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
SC:M;RF:M,,48783,102,85, $/MW-Day,,3,, Jane Doe,123-456-7813,123-456-
7801, doej@wxyz.com , ↓
U,19980814120022ES, WXYZ, Joe Smith,19980814120022ES,
WXYZ,78912345, X/WXYZ/BBB-DDD//, BBB, DDD, E, 19980814000000ES,
19980817000000ES, 19980817000000ES, 19980818000000ES,1200, DAILY,
NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,

```

SC:M;RF:M,,48783,102,90, \$/MW-Day,,3,, Joe Smith,123-456-7893,123-456-7801 , smithj@wxyz.com , ↵
 I,19980813171210ES, WXYZ, Supervisor,19980813171210ES, WXYZ,78912345, X/WXYZ/BBB-DDD//, BBB, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,1200, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
 SC:M;RF:M,,48783,102,95, \$/MW-Day,,3,, Supervisor,123-456-7890,123-456-7801 , , ↵
 U,19980816101000ES, WXYZ, Supervisor,19980816101000ES, WXYZ,78912345, X/WXYZ/CCC-DDD//, CCC, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,85, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
 SC:M;RF:M,,48820,102,102, \$/MW-Day,,3,, Supervisor,123-456-7810,123-456-7801, , ↵
 U,19980814143807ES, WXYZ, Supervisor,19980814143807ES, WXYZ,78912345, X/WXYZ/CCC-DDD//, CCC, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,90, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
 SC:M;RF:M,,48820,102,102, \$/MW-Day,,3,, Supervisor,123-456-7890,123-456-7801, , ↵
 U,19980814120023ES, WXYZ, Joe Smith,19980814120023ES, WXYZ,78912345, X/WXYZ/CCC-DDD//, CCC, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,110, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
 SC:M;RF:M,,48820,102,90, \$/MW-Day,,3,, Joe Smith,123-456-7893,123-456-7801, smithj@wxyz.com , ↵
 I,19980813171214ES, WXYZ, Supervisor,19980813171214ES, WXYZ,78912345, X/WXYZ/CCC-DDD//, CCC, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,110, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,
 SC:M;RF:M,,48820,102,95, \$/MW-Day,,3,, Supervisor,123-456-7890,123-456-7801, , ↵
 U,19980815124023ES, WXYZ, Jane Doe,19980815124023ES, WXYZ,78912345, X/WXYZ/WXYZ-DDD//, WXYZ, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,340, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,, SC:M;RF:M,,48855,102,85, \$/MW-Day,,3,, Jane Doe,123-456-7813,123-456-7801, doej@wxyz.com , ↵
 U,19980814120023ES, WXYZ, Joe Smith,19980814120023ES, WXYZ,78912345, X/WXYZ/WXYZ-DDD//, WXYZ, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,340, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,, SC:M;RF:M,,48855,102,90, \$/MW-Day,,3,, Joe Smith,123-456-7893,123-456-7801, smithj@wxyz.com , ↵
 I,19980813171222ES, WXYZ, Supervisor,19980813171222ES, WXYZ,78912345, X/WXYZ/WXYZ-DDD//, WXYZ, DDD, E, 19980814000000ES, 19980817000000ES, 19980817000000ES, 19980818000000ES,340, DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,, SC:M;RF:M,,48855,102,95, \$/MW-Day,,3,, Supervisor,123-456-7890,123-456-7801, ,

From this audit report, the daily non-firm offerings on the four paths to "DDD" (AAA-DDD, BBB-DDD, CCC-DDD, and WXYZ-DDD) were all originally posted by WXYZ's "Supervisor" at approximately 17:12 on August 13, 1998, at a price of \$95.00 /MW/day discounted from a ceiling price of \$102.00. At approximately 12:00 on August 14, 1998, Joe Smith changed the offer price to \$90.00 on all four paths.

At 14:14 on August 14, 1998, "Supervisor" adjusted the capacity available on path X/WXYZ/CCC-DDD// to 90 MW (POSTING_REF = 48820) and set the offer price up to match the tariff ceiling rate (presumably due to the path now being constrained and released from the requirement to have discounted service offered at the same rate as all other unconstrained paths to DDD). Capacity on this path was last updated to a value of 85 MW at 10:10 on August 16, 1998, which is the current information posted on OASIS for this path at the time of the query.

Jane Doe adjusted the price on the three presumably unconstrained paths to DDD at 12:40 on August 15, 1998, to \$85.00, which may have been in response to a negotiation for service on one of these paths. No further updates have occurred to the offerings on paths BBB-DDD and WXYZ-DDD since that time.

Finally, the capacity available on path X/WXYZ/AAA-DDD// was updated by Jane Doe from 850 to 800 MW at 13:17 on August 15, 1998, which may have corresponded with final confirmation of a reservation at a negotiated discount by the Transmission Customer that initiated the price change from \$90.00 to \$85.00.

013-4.1.7.2 Reservations

The following is an example of a hypothetical audit query for a specific transmission service reservation (line breaks and indentations added to improve readability):

```

REQUEST_STATUS=200.␣
ERROR_MESSAGE=.␣
TIME_STAMP=19980821092048ES.␣
VERSION=1.4.␣
TEMPLATE=transstatusaudit.␣
OUTPUT_FORMAT=DATA.␣
PRIMARY_PROVIDER_CODE=WXYZ.␣
PRIMARY_PROVIDER_DUNS=78912345.␣
RETURN_TZ=ES.␣
DATA_ROWS=9.␣
COLUMN_HEADERS=RECORD_TYPE, TIME_OF_LAST_UPDATE,
MODIFYING_COMPANY_CODE, MODIFYING_NAME,
CONTINUATION_FLAG, ASSIGNMENT_REF, SELLER_CODE,
SELLER_DUNS, CUSTOMER_CODE, CUSTOMER_DUNS,
AFFILIATE_FLAG, PATH_NAME, POINT_OF_RECEIPT,
POINT_OF_DELIVERY, SOURCE, SINK, CAPACITY_REQUESTED,
CAPACITY_GRANTED, SERVICE_INCREMENT, TS_CLASS, TS_TYPE,
    
```

TS_PERIOD, TS_WINDOW, TS_SUBCLASS,
NERC_CURTAILMENT_PRIORITY, OTHER_CURTAILMENT_PRIORITY,
START_TIME, STOP_TIME, CEILING_PRICE, OFFER_PRICE, BID_PRICE,
PRICE_UNITS, PRECONFIRMED, ANC_SVC_LINK, ANC_SVC_REQ,
POSTING_REF, SALE_REF, REQUEST_REF, DEAL_REF, IMPACTED,
COMPETING_REQUEST_FLAG, REQUEST_TYPE, RELATED_REF,
NEGOTIATED_PRICE_FLAG, STATUS, STATUS_NOTIFICATION,
STATUS_COMMENTS, TIME_QUEUED, RESPONSE_TIME_LIMIT,
TIME_OF_LAST_UPDATE, PRIMARY_PROVIDER_COMMENTS,
SELLER_REF, SELLER_COMMENTS, CUSTOMER_COMMENTS,
SELLER_NAME, SELLER_PHONE, SELLER_FAX, SELLER_EMAIL,
CUSTOMER_NAME, CUSTOMER_PHONE, CUSTOMER_FAX,
CUSTOMER_EMAIL, REASSIGNED_REF, REASSIGNED_CAPACITY,
REASSIGNED_START_TIME, REASSIGNED_STOP_TIME.↓
U, 19980815131629ES, DEFPM, Alan Trader,N,104392, WXYZ,78912345,
DEFPM,912876543, N, X/WXYZ/AAA-DDD//, AAA, DDD, AAA, ZZZ,50,,
DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,3,,
19980817000000ES, 19980818000000ES,102,85,85, \$/MW-Day, N,,
SC:M;RF:M,,,,,0, N, ORIGINAL,,, CONFIRMED,,, 19980815121510ES,
19980815144100ES, 19980815131629ES,,,,, Jane Doe, 123-456-7813, 123-
456-7801, doej@wxyz.com, Alan Trader, 312-678-9104, 312-678-9100,
a.trader@defmarketing.com,,,,,↓
U, 19980815125042ES, WXYZ, Jane Doe,N,104392, WXYZ,78912345,
DEFPM,912876543, N, X/WXYZ/AAA-DDD//, AAA, DDD, AAA,
ZZZ,50,50,DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD,
FIXED,,3,, 19980817000000ES, 19980818000000ES,102,85,82, \$/MW-Day,
N,, SC:M;RF:M,,,,,0, N, ORIGINAL,,, COUNTEROFFER,,,
19980815121510ES, 19980815144100ES, 19980815125042ES,,,,, Jane Doe,
123-456-7813, 123-456-7801, doej@wxyz.com, Alan Trader, 312-678-9104,
312-678-9100, a.trader@defmarketing.com,,,,,↓
U, 19980815124811ES, DEFPM, Alan Trader,N,104392, WXYZ,78912345,
DEFPM,912876543, N, X/WXYZ/AAA-DDD//, AAA, DDD, AAA,
ZZZ,50,50,DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD,
FIXED,,3,, 19980817000000ES, 19980818000000ES,102,85,82, \$/MW-Day,
N,, SC:M;RF:M,,,,,0, N, ORIGINAL,,, REBID,,, 19980815121510ES,
19980815144100ES, 19980815124811ES,,,,, Jane Doe, 123-456-7813, 123-
456-7801, doej@wxyz.com, Alan Trader, 312-678-9104, 312-678-9100,
a.trader@defmarketing.com,,,,,↓
U, 19980815124100ES, WXYZ, Jane Doe,N,104392, WXYZ,78912345,
DEFPM,912876543, N, X/WXYZ/AAA-DDD//, AAA, DDD, AAA,
ZZZ,50,50,DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD,
FIXED,,3,, 19980817000000ES, 19980818000000ES,102,85,80, \$/MW-Day,
N,, SC:M;RF:M,,,,,0, N, ORIGINAL,,, COUNTEROFFER,,,
19980815121510ES, 19980815144100ES, 19980815124100ES,,,,, Jane Doe,
123-456-7813, 123-456-7801, doej@wxyz.com, Alan Trader, 312-678-9104,
312-678-9100, a.trader@defmarketing.com,,,,,↓
U,,,,,Y,104392,,,,,,75,75,,,,,, 19980818000000ES,
19980819000000ES,,,,,,
U,,,,,Y,104392,,,,,,100,100,,,,,, 19980819000000ES,
19980820000000ES,,,,,,


```
I, 19980815121510ES, DEFPM, Alan Trader,N,104392, WXYZ,78912345,
DEFPM,912876543, N, X/WXYZ/AAA-DDD//, AAA, DDD, AAA,
ZZZ,50,,DAILY, NON-FIRM, POINT_TO_POINT, FULL_PERIOD, FIXED,,3,,
19980817000000ES, 19980818000000ES,102,90,80, $/MW-Day, N,,
SC:M;RF:M,,,,,0, N, ORIGINAL,,, QUEUED,,, 19980815121510ES,,
19980815121510ES,,,,, Company Default, 123-456-7800, 123-456-7801,, Alan
Trader, 312-678-9104, 312-678-9100, a.trader@defmarketing.com,,,,,↓
I,,,,Y,104392,,,,,,,,,75,,,,,,,,, 19980818000000ES,
19980819000000ES,,,,,,,,,,,,,,,,,,,,, ↓
I,,,,Y,104392,,,,,,,,,100,,,,,,,,, 19980819000000ES,
19980820000000ES,,,,,,,,,,,,,,,,,,,,, ↓
```

First, this example shows the handling of continuation records which conveyed a time varying demand of 50 MW on August 17, 1998, 75 MW on August 18, 1998, and 100 MW on August 19, 1998. This demand profile was initially entered with the original reservation request (*transrequest* template) at 12:15 on August 15, 1998, by Alan Trader. Since the data elements associated with the profile were never modified, the intervening audit response records do not repeat the data from these continuation records.

As part of the original reservation, Alan Trader attempted to negotiate a price for service of \$80.00 /MW/day. Jane Doe responded to this request with a counter offer at the rate of \$85.00 /MW/day at 12:41 on August 15, 1998. Since the status of COUNTEROFFER constitutes acceptance of all terms of the reservation except price (i.e., transmission capability has been evaluated and is available), the RESPONSE_TIME_LIMIT data element has been updated to reflect the time by which the Transmission Customer must confirm service (assuming the establishment of Transmission Customer confirmation time limits is approved by FERC).

At 12:48, Alan Trader attempted to negotiate further for a rate of \$82.00 /MW/day and the reservation status was set to REBID. Jane Doe responded at 12:50 with a second counter offer restating a rate of \$85.00, which Alan Trader finally agreed to at 13:16 on August 15, 1998. The current posted information on OASIS shows this final CONFIRMED reservation.

013-4.2 ANCILLARY SERVICE LINKAGE EXAMPLES

The following examples document the handling of ancillary service linkage to transmission service requests/reservations using the ANC_SVC_LINK data element.

Example 1:

Assume ancillary services SC and RV are mandatory from the Primary Provider, whose code is TPEL, and ancillary services RF, EI, SP and SU are required, but will be defined at a future time.

"SC: (TPEL:RQ); RV: (TPEL:RQ); RF:(:FT); EI:(:FT); SP:(:FT); SU:(:FT)";

Example 2:

Assume ancillary services SC and RV are mandatory from the Primary Provider, whose code is TPEL, and RF, EI, SP and SU are self-supplied. The CUSTOMER_CODE is "CPSE"

"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:(CPSE:SP); EI:(CPSE:SP);
SP:(CPSE:SP); SU:(CPSE:SP)"

Example 3:

Assume ancillary services SC and RV are mandatory from the Primary Provider, whose code is TPEL, and ancillary services RF, EI, SP and SU were purchased via a prior OASIS reservation from Seller "SANC" whose reservation number was "39843". There is sufficient capacity within the Ancillary reservation to handle this transmission reservation.

"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:(SANC:AR:39843);
EI:(SANC:AR:39843) SP:(SANC:AR:39843); SU:(SANC:AR:39843)"

Example 4:

Assume ancillary services SC and RV are mandatory from the Primary Provider, whose code is TPEL, and ancillary services RF, EI, SP and SU were purchased via prior OASIS reservations from Sellers SANC and TANC, whose reservation numbers were 8763 and 9824 respectively. There is not sufficient capacity within the Ancillary reservation from Seller SANC to handle this transmission reservation. In this case the OASIS reservation number 8763 will be depleted for the time frame specified within the transmission reservation and the remaining required amount will come from reservation number 9824.

"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:((SANC:AR:8763)(TANC:AR:9824));
EI:((SANC:AR:8763)(TANC:AR:9824));
SP:((SANC:AR:8763)(TANC:AR:9824));
SU:((SANC:AR:8763)(TANC:AR:9824))"

Example 5:

Assume a transmission reservation in the amount of 100 MW/hour for a period of one day is made. Ancillary services SC and RV are mandatory from the Primary Provider, whose code is TPEL, and ancillary services RF, EI, SP and SU were purchased via prior OASIS reservations from Sellers SANC and TANC, whose reservation numbers were 8763 and 9824 respectively. There is sufficient capacity within the Ancillary reservation from Seller SANC to handle this transmission reservation; however the purchaser wishes to use only 40 MWs from this Seller. In this case the OASIS reservation number 8763 will be depleted in the amount of 40 MWs for the time frame specified within the transmission reservation and the remaining required amount will come from reservation number 9824.

```
"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:((SANC:AR:8763:40)(TANC:AR:9824));
EI:((SANC:AR:8763:40)(TANC:AR:9824));
SP:((SANC:AR:8763:40)(TANC:AR:9824));
SU:((SANC:AR:8763:40)(TANC:AR:9824))"
```

Version Notes

Version 000 January 15, 2005

Version 000 NAESB WEQ Standards were published on January 15, 2005. Those standards that were Federally-jurisdictional were submitted to the Federal Energy Regulatory Commission on January 18, 2005. The standards reflect WEQ Executive Committee action on June 3, 2003, February 24, 2004, November 16, 2004, and November 30, 2004, and WEQ member ratification on July 21, 2003, April 7, 2004, December 30, 2004 and December 31, 2004.

Minor corrections were applied on March 25, 2005.

WEQ-001

NAESB SUBMITTAL: January 18, 2005 – The WEQ-001 NAESB Open Access Same-Time Information Systems (OASIS) Business Practice Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-001. However, the FERC did not adopt Standard No. WEQ-001-9.7 in Order 676.

COMPLIANCE¹: Public utilities were ordered to implement the WEQ-001 standards by July 1, 2006.

WEQ-002

NAESB SUBMITTAL: January 18, 2005 – The WEQ-002 NAESB OASIS Standards and Communication Protocol (S&CP) Business Practice Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-002.

COMPLIANCE: Public utilities were ordered to implement the WEQ-002 standards by July 1, 2006.

WEQ-003

NAESB SUBMITTAL: January 18, 2005 – WEQ-003 NAESB OASIS Data Dictionary Business Practice Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-003.

COMPLIANCE: Public utilities were ordered to implement the WEQ-003 standards by July 1, 2006.

¹ Public utilities should consult with the Federal Energy Regulatory Commission (FERC) to confirm compliance dates. NAESB does not monitor compliance of FERC regulations.

WEQ-004

NAESB SUBMITTAL: January 18, 2005 – WEQ-004 NAESB Coordinate Interchange Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-004.

COMPLIANCE: Public utilities were ordered to implement the WEQ-004 standards by July 1, 2006.

NAESB SUBMITTAL: November 16, 2006 – NAESB submitted an interim version of the WEQ-004 Coordinate Interchange Standards to complement an update to the NERC INT Reliability Standards in Docket No. RM05-5.

NAESB SUBMITTAL: February 5, 2007 – NAESB submitted additional information to supplement the November 16, 2006 filing. The information provided a map of the NAESB WEQ-004 Standards to the NERC INT Reliability Standards.

FERC ORDER: April 13, 2007 – FERC issued Order 676-B and incorporated by reference the interim version of the WEQ-004 Coordinate Interchange Standards.

WEQ-005

NAESB SUBMITTAL: January 18, 2005 – WEQ-005 NAESB WEQ Area Control Error (ACE) Equation Special Cases Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-005.

COMPLIANCE: Public utilities were ordered to implement the WEQ-005 standards by July 1, 2006.

WEQ-006

NAESB SUBMITTAL: January 18, 2005 – WEQ-006 NAESB WEQ Manual Time Error Correction Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-006.

COMPLIANCE: Public utilities were ordered to implement the WEQ-006 standards by July 1, 2006.

WEQ-007

NAESB SUBMITTAL: January 18, 2005 – WEQ-007 WEQ Inadvertent Interchange Payback Standards were filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 and incorporated by reference the NAESB Wholesale Electric Quadrant Standards, Version 000 including WEQ-007.

COMPLIANCE: Public utilities were ordered to implement the WEQ-007 standards by July 1, 2006.

WEQ-008

NAESB has not submitted the Version 000, WEQ-008 NAESB WEQ Transmission Loading Relief – Eastern Interconnection Standards to the FERC.

WEQ-009

NAESB SUBMITTAL: January 18, 2005 – WEQ-009 WEQ Standards of Conduct for Electric Transmission Providers was filed with the Federal Energy Regulatory Commission (FERC) (Docket No. RM05-5-000).

FERC ORDER: April 25, 2006 - FERC issued Order 676 but did not incorporate by reference the NAESB Wholesale Electric Quadrant Standards, Version 000, WEQ-009 WEQ Standards of Conduct for Electric Transmission Providers, since they duplicated the Commission's regulations.

WEQ-010

NAESB has not submitted the Version 000, WEQ-010 WEQ Contracts Related Standards to the FERC.

WEQ-011 (These standards were adopted after the publication of Version 000, therefore were not included in Version 000.)

NAESB SUBMITTAL: June 27, 2005 – WEQ-011 WEQ Gas / Electric Coordination Standards was filed with the Federal Energy Regulatory Commission (FEC) (Docket No. RM05-28).

NAESB SUBMITTAL: June 28, 2006 – NAESB filed a supplement to the June 27, 2005 submittal to note the permanent numbers assigned to the standards WEQ-011 WEQ Gas / Electric Coordination Standards (Docket No. RM05-28).

FERC ORDER: June 25, 2007 – FERC issued Order 698 and adopted the NAESB WEQ-011 WEQ Gas / Electric Coordination Standards.

COMPLIANCE: Public utilities are required to implement the WEQ-011 standards incorporated by reference in Order 698 by November 1, 2007.

Version 001 October 31, 2007

The following table shows a summary of requests and minor corrections resulting in additions or modifications to the NAESB WEQ Definitions, Standards and Appendices.

Version Cross Reference:

Standard	Adopted	Revised	Action
WEQ-001 NAESB Open Access Same-Time Information Systems (OASIS) Standards, Version 1.4			
Introduction			Added heading "Introduction" for consistency in publication of Version 001
Definition of Terms	000	001	Modified heading from "Definitions" to "Definition of Terms" for consistency in publication of Version 001
001-0.1	000		
001-0.2	000		
001-0.3	000	001	R04035 & R05002 (01/05/2006) – Modify Definition
001-0.4	000		
001-0.5	000		
001-0.6	000	001	R04006D (10/02/2006) – Modify Definition R04006C1 (04/07/2007) – Modify Definition WEQ 2007 Annual Plan Item 2 (07/23/2007) – Modify Definition
001-0.7	000		
001-0.8	000		
001-0.9	000		
001-0.10	000	001	R04006D (10/02/2006) – Modify Definition WEQ 2007 Annual Plan Item 2 (07/23/2007) – Modify Definition
001-0.11	000		
001-0.12	000		
001-0.13	000		
001-0.14	001		R04035 & R05002 (01/05/2006) – Add Definition "FERC"
001-0.15	001		R04035 & R05002 (01/05/2006) – Add Definition "Appropriate Regulating Authority"
001-0.16	001		R04006D (10/02/2006) – Add Definition "Assignee"
001-0.17	001		R04006D (10/02/2006) – Add Definition "Eligible Customer"
001-0.18	001		R04006D (10/02/2006) – Add Definition "Financially Obligated Transmission Customer (FOTC)" WEQ 2007 Annual Plan Item 2 (07/23/2007) – Modify Definition

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-0.19	001		R04006D (10/02/2006) – Add Definition “Resale”
001-0.20	001		R04006D (10/02/2006) – Add Definition “Transfer”
001-1.0	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-1.1	000 RESERVED		
001-1.2	000 RESERVED		
001-1.3	000 RESERVED		
001-1.4	000 RESERVED		
001-1.5	000		
001-1.6	000		
001-1.7	000		
001-1.8	000		
001-2.0	000		
001-2.1	000		
001-2.1.1	000		
001-2.1.2	000		
001-2.1.3	000		
001-2.1.4	000		
001-2.1.5	000		
001-2.1.6	000		
001-2.1.7	000		
001-2.1.8	000		
001-2.1.9	000		
001-2.1.10	000		
001-2.1.11	000		
001-2.1.12	000		
001-2.1.13	000		
001-2.1.14	000		
001-2.2	000		

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-2.2.1	000		
001-2.2.2	000		
001-2.3	000		
001-2.3.1	000		
001-2.3.2	000		
001-2.4	000		
001-2.5	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-2.5.1	000		
001-2.5.2	000		
001-2.5.3	000		
001-2.5.4	000		
001-2.5.5	000		
001-2.5.6	000		
001-2.5.7	000		
001-2.5.8	000		
001-2.5.9	000		
001-2.6	000		
001-2.6.1	000		
001-2.6.2	000		
001-3	000		
001-3.1	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-3.2	000		
001-3.3	000		
001-3.4	000		
001-3.5	000		
001-3.6	000		
001-4	000		
001-4.1	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-4.2	000 RESERVED		

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-4.3	000 RESERVED		
001-4.4	000		
001-4.5	000		
001-4.6	000		
001-4.7	000		
001-4.8	000		
001-4.9	000		
001-4.10	000		
001-4.11	000		
001-4.12	000		
001-4.13	000		
001-4.14	000		
001-4.14.1	000		
001-4.14.2	000		
001-4.14.3	000		
001-4.14.4	000		
001-4.14.5	000		
001-4.14.6	000		
001-4.15	000		
001-4.16	000		
001-4.17	000		
001-4.18	000		
001-4.19	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-4.20	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-4.21	000		
001-4.22	000		
001-4.23	000		
001-4.24	000		
001-4.25	000		

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-4.26	000		
001-4.27	000		
001-5	000		
001-5.1	000		
001-5.2	000		
001-5.3	000		
001-5.4	000		
001-5.5	000		
001-5.6	000		
001-6	000		
001-6.1	000		
001-6.2	000		
001-6.3	000		
001-6.4	000		
001-7	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-7.1	000		
001-7.2	000		
001-7.3	000		
001-7.4	000		
001-7.5	000		
001-7.6	000		
001-7.7	000		
001-7.8	000		
001-7.9	000		
001-7.10	000		
001-7.11	000		
001-7.12	000		
001-7.13	000		
001-7.14	000		

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-7.15	000		
001-7.16	000		
001-8	000		
001-8.1	000		
001-8.1.1	000		
001-8.2	000		
001-8.3	000		
001-8.3.1	000		
001-8.3.2	000		
001-8.3-A	000	001 RESERVED	Deleted Appendix Renumbered to 001-A
001-9	000		
001-9.1	000		
001-9.1.1	000	001	Add Reference to Appendix B
001-9.1.2	000		
001-9.1.3	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-9.1.4	000		
001-9.2	000		
001-9.2-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) - Deleted (New Appendix 001-B)
001-9.3	000		
001-9.3.1	000		
001-9.3.2	000		
001-9.3-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) - Deleted (New Appendix 001-B)
001-9.4	000	001	Add Reference to Appendix B
001-9.4.1	000		
001-9.4.1-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Deleted (New Appendix 001-B)
001-9.4.2	000	001	R04035 & R05002 (01/05/2006) – Modify Standard Delete Reference to Appendix B
001-9.4.3	001		R04035 & R05002 (01/05/2006) – Add Standard
001-9.4.2-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) - Deleted (New Appendix 001-B)

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-9.5	000	001	R04035 & R05002 (01/05/2006) - Modify Standard
001-9.5-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) - Deleted (New Appendix 001-B)
001-9.5.1	000	001	Delete Reference to Appendix B
001-9.5.1-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) - Deleted (New Appendix 001-B)
001-9.5.2	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-9.5.3	000		
001-9.6	000		
001-9.6.1	000		
001-9.6.2	000		
001-9.7	000		
001-9.8	000		
001-9.8.1	000	001	R04006D (10/02/2006) – Modify Standard
001-10	000		
001-10.1	000		
001-10.1.1	000	001	Add Reference to Appendix B
001-10.1.2	000		
001-10.1.3	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Delete Standard
001-10.1.4	000		
001-10.1.5	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-10.1.6	000		
001-10.2	000		
001-10.2-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Delete Appendix (New Appendix 001-B)
001-10.3	000		
001-10.3.1	000		
001-10.3-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) - Delete Appendix (New Appendix 001-B)
001-10.4	000	001	Add Reference to Appendix B
001-10.4.1	000		
001-10.4.1-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Delete Appendix (New Appendix 001-B)

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-10.4.2	000		
001-10.4.3	001		R04035 & R05002 (01/05/2006) – Add Standard
001-10.4.2-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Delete Appendix (New Appendix 001-B)
001-10.5	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-10.5-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Delete Appendix (New Appendix 001-B)
001-10.5.1	000		
001-10.5.1-A	000	001 RESERVED	R04035 & R05002 (01/05/2006) – Delete Appendix (New Appendix 001-B)
001-10.5.2	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-10.5.3	000	001	R04035 & R05002 (01/05/2006) – Modify Standard R04006C1 (04/07/2007) – Modify Standard
001-10.5.3.1	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.2	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.2.1	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.3	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.4	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.5	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.6	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.6.1	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.7	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.8	001		R04006C1 (04/07/2007) – Add Standard
001-10.5.3.9	001		R04006C1 (04/07/2007) – Add Standard
001-10.6	000		
001-10.6.1	000		
001-10.7	000		
001-10.7.1	000		
001-10.8	000		
001-10.8.1	000		
001-10.8.2	000		
001-10.8.3	000		

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Standard	Adopted	Revised	Action
001-10.8.4	000		
001-10.8.5	000		
001-10.8.6	000	001	R04035 & R05002 (01/05/2006) – Modify Standard
001-10.8.7	001		R04035 & R05002 (01/05/2006) – Add Standard
001-11	001		
001-11.1	001		R04006D (10/02/2006) – Add Standard
001-11.1.1	001		R04006D (10/02/2006) – Add Standard
001-11.1.2	001		R04006D (10/02/2006) – Add Standard
001-11.1.3	001		R04006D (10/02/2006) – Add Standard
001-11.1.4	001		R04006D (10/02/2006) – Add Standard
001-11.1.5	001		R04006D (10/02/2006) – Add Standard
001-11.1.6	001		R04006D (10/02/2006) – Add Standard
001-11.1.7	001		WEQ 2007 Annual Plan Item 2 (07/23/2007) – Add Standard
001-11.2	001		R04006D (10/02/2006) – Add Standard WEQ 2007 Annual Plan Item 2 (07/23/2007) – Modify Standard
001-11.2.1	001		R04006D (10/02/2006) – Add Standard
001-11.2.1.1	001	001 RESERVED	R04006D (10/02/2006) – Add Standard WEQ 2007 Annual Plan Item 2 (07/23/2007) – Delete Standard
001-11.2.2	001		R04006D (10/02/2006) – Add Standard WEQ 2007 Annual Plan Item 2 (07/23/2007) – Modify Standard
001-11.3	001		R04006D (10/02/2006) – Add Standard
001-11.3.1	001		R04006D (10/02/2006) – Add Standard
001-11.3.2	001		R04006D (10/02/2006) – Add Standard
001-11.3.3	001		R04006D (10/02/2006) – Add Standard
001-11.3.4	001		R04006D (10/02/2006) – Add Standard
001-11.4	001		R04006D (10/02/2006) – Add Standard
001-11.5	001		R04006D (10/02/2006) – Add Standard
001-11.5.1	001		R04006D (10/02/2006) – Add Standard
001-11.5.2	001		R04006D (10/02/2006) – Add Standard
001-11.5.3	001		WEQ 2007 Annual Plan Item 2 (07/23/2007) – Add Standard

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Standard	Adopted	Revised	Action
001-11.6	001		R04006D (10/02/2006) – Add Standard
001-11.6.1	001		R04006D (10/02/2006) – Add Standard
001-11.6.2	001		R04006D (10/02/2006) – Add Standard
001-11.6.3	001		WEQ 2007 Annual Plan Item 2 (07/23/2007) – Add Standard
001-11.7	001		R04006D (10/02/2006) – Add Standard
001-11.7.1	001		R04006D (10/02/2006) – Add Standard
001-12	001		R04006D (10/02/2006) – Add Standard
001-12.1	001		R04006D (10/02/2006) – Add Standard
001-12.1.1	001		R04006D (10/02/2006) – Add Standard
001-12.1.2	001		R04006D (10/02/2006) – Add Standard
001-12.1.3	001		R04006D (10/02/2006) – Add Standard
001-12.1.4	001		R04006D (10/02/2006) – Add Standard
001-12.1.5	001		R04006D (10/02/2006) – Add Standard
001-12.1.6	001		R04006D (10/02/2006) – Add Standard
001-12.2	001		R04006D (10/02/2006) – Add Standard
001-12.3	001		R04006D (10/02/2006) – Add Standard
001-12.3.1	001		R04006D (10/02/2006) – Add Standard
001-12.3.2	001		R04006D (10/02/2006) – Add Standard
001-12.4	001		R04006D (10/02/2006) – Add Standard
001-12.4.1	001		R04006D (10/02/2006) – Add Standard
001-12.4.2	001		R04006D (10/02/2006) – Add Standard
001-12.4.2.1	001		R04006D (10/02/2006) – Add Standard
001-12.4.2.2	001		R04006D (10/02/2006) – Add Standard
001-12.4.2.3	001		R04006D (10/02/2006) – Add Standard
001-12.5	001		R04006D (10/02/2006) – Add Standard
001-12.5.1	001		R04006D (10/02/2006) – Add Standard
001-12.5.2	001		R04006D (10/02/2006) – Add Standard
001-A	001		Appendix Renumbered (001-8.3-A in Version 0)

NAESB WEQ Standards – Version Notes

Standard	Adopted	Revised	Action
001-B	001		R05002 (01/05/2006) – New Appendix (Deleted 001-9.2-A, 001-10.2-A, 001-9.3-A, 001-10.3-A, 001-9.4.1-A, 001-10.4.1-A, 001-9.4.2-A, 001-10.4.2-A, 001-9.5-A, 001-10.5-A, 001-9.5.1-A, 001-10.5.1-A)
WEQ-002 Business Practices for Open Access Same-Time Information System (OASIS) Standards & Communication Protocols, Version 1.4			
Introduction	000	001	Removed numbering (002-1) for consistency in publication of Version 001
Definition of Terms	000	001	Removed numbering (002-1.1) for consistency in publication of Version 001
002-0.1	000		Numbering added to definition R07002 (09/17/2007) – Modify Standard R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.2	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.3	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.4	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.5	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.6	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.7	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-0.8	001		Numbering added to definition R07002 (9/17/2007) Added annotations to definitions as they relate to definitions contained in other WEQ Standards.
002-1	000	001 RESERVED	Removed numbering from “Introduction”
002-1.1	000	001 RESERVED	Removed numbering from “Definition of Terms”
002-2	000		
002-2.1	000	001	WEQ 2007 Annual Plan Item (3)(a)(2) (04/07/2007) – Modify Standard R07002 (9/17/2007) – Revised language (002-2.1(d)) related to Standards of Conduct
002-2.2	000		
002-2.3	000	001	Minor Correction (10/23/2007) – Changed HTTP Version (002-2.3(d))

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Standard	Adopted	Revised	Action
002-2.4	000		
002-2.5	000		
002-3	000		
002-3.1	000		
002-3.2	000		
002-3.3	000	001	R07002 (09/17/2007) – Change document section references to use the correct NAESB Standard enumeration (002-3.3(a)-(c)) Minor Correction (10/23/2007) – Removed parenthetical phrase “(such as fetch http)” (002-3.3(e))
002-3.4	000	001	WEQ 2007 Annual Plan Item (3)(a)(2) (04/07/2007) – Modify Standard R07002 (09/17/2007) – Divided section for informational postings into requirements for INFO.HTM and new section for Standards of Conduct posting requirements (002-3.4(b)); Subsection k deleted per Final Action WEQ 2007 Annual Plan Item 3(a)(2), (002-3.4(b)(ii)(k)); Revised reference to WEQ 002-4.5 instead of section 4.5 – even though Final Action reflected “section” (002-3.4(b)(i))
002-3.5	000		
002-3.6	000	001	R07002 (09/17/2007) – Revised reference to NAESB standards; Typographical error (002-3.6(b))
002-4	000		
002-4.1	000	001	R07002 (09/17/2007) – Modify Standard
002-4.2	000		
002-4.2.1	000		
002-4.2.1.1	000		
002-4.2.1.2	000		
002-4.2.1.3	000		
002-4.2.2	000	001	Minor Correction (10/23/2007) – Corrected reference for OASIS data dictionary.
002-4.2.3	000		
002-4.2.3.1	000	001	R07002 (09/17/2007) – Changed document section references to use the correct NAESB standard enumeration.
002-4.2.3.2	000		
002-4.2.3.3	000		
002-4.2.4	000		
002-4.2.4.1	000		

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Standard	Adopted	Revised	Action
002-4.2.4.2	000		
002-4.2.5	000		
002-4.2.5.1	000		
002-4.2.5.2	000		
002-4.2.6	000		
002-4.2.6.1	000		
002-4.2.6.2	000		
002-4.2.6.3	000		
002-4.2.6.4	000		
002-4.2.6.5	000		
002-4.2.6.6	000		
002-4.2.6.7	000		
002-4.2.6.8	000		
002-4.2.7	000		
002-4.2.7.1	000		
002-4.2.7.2	000	001	Minor Correction (10/23/2007) – Revised example to be consistent with other examples contained in the business practice including: adding version number and removing brackets around data value.
002-4.2.7.3	000	001	Minor Correction (10/23/2007) – Revised example to be consistent with other examples contained in the business practice including; adding version number.
002-4.2.7.4	000		
002-4.2.7.5	000	001	R07002 (09/17/2007) – Changed document section references to use the correct NAESB Standard enumeration.
002-4.2.7.6	000	001	R07002 (09/17/2007) – Changed document section references to use the correct NAESB Standard enumeration.
002-4.2.8	000		
002-4.2.8.1	000		
002-4.2.8.2	000		
002-4.2.8.3	000		
002-4.2.9	000		
002-4.2.9.1	000		

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Standard	Adopted	Revised	Action
002-4.2.9.2	000		
002-4.2.9.3	000		
002-4.2.10	000	001	R07002 (09/17/2007) – The introduction to the OASIS transaction process refers the reader to the Implementation Guide for specific detailed information on this process.
002-4.2.10.1	000	001	R07002 (09/17/2007) – The detailed description of the general OASIS transaction process has been moved (deleted (a)-(k)) to the OASIS Implementation Guide WEQ-013-2. This section introduces use of REQUEST_TYPE data element and refers to the Implementation Guide for Specific information related to REQUEST_TYPE.
002-4.2.10.2	000	001	WEQ 2007 Annual Plan Item 2 (07/23/2007) – Modify Standard R07002 (09/17/2007) – The detailed definitions for the STATUS data element and the STATUS transition state diagram have been moved to the OASIS Implementation Guide WEQ-013-2.2. This section introduces use of STATUS data element and refers to the Implementation Guide for Specific information related to STATUS.
002-4.2.10.3	000		
002-4.2.10.3.1	000	001	Minor Correction (10/23/2007) – Revised examples. Removed double quotes and comma from value of STATUS_NOTIFICATION Data Element. In content type example provided data value and added return characters to be consistent with other examples.
002-4.2.10.3.2	000		
002-4.2.10.4	000		
002-4.2.11	000		
002-4.2.12	000	001	R07002 (09/17/2007) – Moved examples to the OASIS Implementation Guide WEQ-013-4.2.
002-4.2.13	000	001 RESERVED	R07002 (09/17/2007) – The information in this section and all subsections has been moved to the OASIS Implementation Guide WEQ-013-2.3
002-4.2.13.1	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.2	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.3	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.4	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.5	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.6	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.

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Standard	Adopted	Revised	Action
002-4.2.13.7	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.8	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.9	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.2.13.10	000	001 RESERVED	R07002 (09/17/2007) – The information in this subsection has been moved to the OASIS Implementation Guide WEQ-013.2.3.
002-4.3	000	001	Minor Correction (10/23/2007) – Corrected reference for OASIS data dictionary.
002-4.3.1	000		
002-4.3.2	000		
002-4.3.2.1	000		
002-4.3.2.2	000		
002-4.3.3	000		
002-4.3.3.1	000		
002-4.3.3.2	000		
002-4.3.4	000		
002-4.3.4.1	000	001	Minor Correction (10/23/2007) – In sixth paragraph corrected template reference.
002-4.3.4.2	000	001	Minor Correction (10/23/2007) – Changed references of “Security Coordinator” to “Reliability Coordinator” and “Control Area” to “Balancing Area” to be consistent with current NERC terminology. Minor Correction (10/23/2007) – Change references of “Balancing Area” to “Balancing Authority” to be consistent with current NERC terminology.
002-4.3.4.3	000		
002-4.3.4.4	000		
002-4.3.5	000		
002-4.3.5.1	000		
002-4.3.6	000		
002-4.3.6.1	000	001	R04006C1 (04/07/2007) – Add RELINQUISH to recognized REQUEST_TYPES.
002-4.3.6.2	000	001	R07002 (09/17/2007) – Reference to specific enumerated values for REQUEST_TYPE and STATUS has been removed.
002-4.3.6.3	000	001	R07002 (09/17/2007) – Reference to specific enumerated value for STATUS has been removed.

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Standard	Adopted	Revised	Action
002-4.3.6.4	000	001	R07002 (09/17/2007) – Reference to specific enumerated value for STATUS has been removed.
002-4.3.6.5	000		
002-4.3.7	000		
002-4.3.7.1	000		
002-4.3.7.2	000		
002-4.3.8	000		
002-4.3.8.1	000		
002-4.3.8.2	000	001	R07002 (09/17/2007) – Reference to specific enumerated value for STATUS has been removed.
002-4.3.8.3	000	001	R07002 (09/17/2007) – Reference to specific enumerated value for STATUS has been removed.
002-4.3.8.4	000	001	R07002 (09/17/2007) – Reference to specific enumerated value for STATUS has been removed.
002-4.3.8.5	000		
002-4.3.9	000		
002-4.3.9.1	000		
002-4.3.9.2	000		
002-4.3.10	000		
002-4.3.10.1	000		
002-4.3.10.2	000		
002-4.3.10.3	000		
002-4.3.10.4	000	001	R07002 (09/17/2007) – Changed specific reference to FERC Statutes with reference to WEQ-009 Standards of Conduct Standards. Minor Correction (10/23/2007) – Revised introductory sentence so English version and OASIS version of template name are both listed consistent with other sections of the document.
002-4.3.10.5	000	001	R07002 (09/17/2007) – Changed specific reference to FERC Statutes with reference to WEQ-009 Standards of Conduct Standards. Minor Correction (10/23/2007) – Revised introductory sentence so English version and OASIS version of template name are both listed consistent with other sections of the document.
002-4.3.10.6	000	001	R07002 (09/17/2007) – Changed specific reference to FERC Statutes with reference to WEQ-009 Standards of Conduct Standards. Minor Correction (10/23/2007) – Revised introductory sentence so English version and OASIS version of template name are both listed consistent with other sections of the document.

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Standard	Adopted	Revised	Action
002-4.3.11	000	001	Minor Correction (10/23/2007) – Corrected OASIS template name. Changed “dtsconductaudit” to “stdconductaudit”.
002-4.3.11.1	000		
002-4.3.11.2	000		
002-4.3.11.3	000		
002-4.3.11.3.1	000		
002-4.3.11.3.2	000		
002-4.3.11.3.3	000		
002-4.3.11.3.4	000		
002-4.3.11.4	000		
002-4.3.11.5	000		
002-4.4	000		R07002 (09/17/2007) – The contents of this section and all subsections have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.1	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.2	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.3	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.4	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.5	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.6	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.6.1	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.6.2	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.6.3	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.6.4	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.6.5	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.

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Standard	Adopted	Revised	Action
002-4.4.6.6	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.7	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.7.1	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.4.7.2	000	001 RESERVED	R07002 (09/17/2007) – The contents of this subsection have been moved to the OASIS Implementation Guide WEQ-013-4.1.
002-4.5	000	001	WEQ 2007 Annual Plan Item (3)(a)(2) (04/07/2007) – Modify Standard R07002 (09/17/2007) – This section was subdivided into two subsections to describe the requirements for information posted on INFO.HTM and new posting requirements for specific Standards of Conduct related information. Under WEQ-009.
002-4.5.1	001		WEQ 2007 Annual Plan Item (3)(a)(2) (04/07/2007) – Modify Standard and Numbering (Add: INFO.HTM)
002-4.5.2	001		WEQ 2007 Annual Plan Item (3)(a)(2) (04/07/2007) – Add Standard
002-5	000		
002-5.1	000		
002-5.2	000		
002-5.3	000		
002-5.3.1	000		
002-5.3.2	000		
002-5.3.3	000		
002-5.4	000		
002-5.5	000		
002-5.6	000		
002-5.7	000		
002-5.8	000		
002-5.9	000		
002-5.10	000		
WEQ-003 NAESB Open Access Same-Time Information Systems (OASIS) Data Dictionary, Version 1.4			
003-0	000	001	R04006C1 (04/07/2007) – Modify Standard (REQUEST_TYPE) add Valid Type: RELINQUISH WEQ 2007 Annual Plan Item 2 (07/23/2007) – Add Definition “ANNULLED” for Element Name: STATUS R07002 (09/17/2007) – Modify Standard Definition formatting for Element Name: (REQUEST_TYPE) and

Standard	Adopted	Revised	Action
			<p>(STATUS)</p> <p>Minor Correction (10/23/2007) – Clarifications or corrections to the format, appearance, or descriptions of standards in standards documentation; clarifications or corrections to add code values to tables, and clarification and corrections that did not materially change a standard.</p> <p>Other minor corrections applied:</p> <ul style="list-style-type: none"> - Header – Added reference to indicate the OASIS Version Number to avoid confusion between OASIS 1.5 which is currently under development. - In the Restricted Values column there were multiple generic changes: Used the term “Valid Values” consistently when values were listed, used a consistent approach when listing Valid Values, and used the term “free form text” consistently. - In the Definition of Data Element column there were a limited number of data elements that used the Data Dictionary Element Name in the introductory sentence/phrase. These definitions were revised to remove the Data Dictionary Element Name. - In addition to these changes the following describes changes to specific data elements: AS_TYPE – re-sequenced Valid Values list in Restricted Values and Definition of Data Element to match ANC_SVC_Link. ANC_SVC_LINK – Added examples for DT, TL, and BS in Restricted Values and Definition of Data Element to match AS_TYPE. COLUMN_HEADERS – In Restricted Values and Data Element Definition removed references to having double quotes around column header names. None of the examples in WEQ 002 or WEQ 013 have quotes around these values. Also corrected errors with Data Dictionary Element Names listed in the Definition of Data Element (changed COLUMN_HEADER to COLUMN_HEADERS and APATH_NAME to PATH_NAME). OTHER_CURTAILMENT_PRIORITY – Changed reference of WSCC to WECC. PROCEDURE_NAME - Changed references of WSCC to WECC in Restricted Values and Definition of Data Element. PROCEDURE_LEVEL - Changed references of WSCC to WECC in Restricted Values and Definition of Data Element. REGION_CODE – Under Definition of Data Elements removed references to ECAR, MAIN, and MACC since these Regions no longer exist. Added reference for RFC. Changed reference of WSCC to WECC. RETURN_TZ and TZ – Revised both time zone data elements so they have similar information in Restricted Values and Definition of Data Element. TARIFF_REFERENCE – Moved “Name and description of Tariff” from Restricted Value to Definition of Data Element.
WEQ-004 NAESB WEQ Coordinate Interchange Standards			
Purpose	000	001	R05001 (06/22/2006) – Modify Purpose Statement
Applicability	000	001	R05001 (06/22/2006) – Modify Applicability Statement R05018 (09/17/2007) – Modify Applicability Statement
Definition of Terms	000	001	Removed numbering (004-0) and modified heading from “Definitions” to “Definition of Terms” for consistency in publication of Version 001

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Standard	Adopted	Revised	Action
004-0	000	001 RESERVED	Delete numbering from “Definitions” heading
004-0.1	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition Minor Correction (03/20/2007) – Modify Definition R05018 (09/17/2007) Modify Definition
004-0.2	001		R05001 (06/22/2006) – Add Definition “Arranged Interchange”
004-0.3	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.4	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.5	001		R05001 (06/22/2006) – Add Definition “Confirmed Interchange”
004-0.6	001		R05001 (06/22/2006) – Add Definition “Curtailement”
004-0.7	001		R05001 (06/22/2006) – Add Definition “Generator-Providing Entity (GPE)” Minor Correction (03/20/2007) – Modify Definition
004-0.8	001		R05001 (06/22/2006) – Add Definition “Implemented Interchange”
004-0.9	001		R05001 (06/22/2006) – Add Definition “Interchange”
004-0.10	001		R05001 (06/22/2006) – Add Definition “Interchange Authority (IA)”
004-0.11	000	001	Numbering added to definition
004-0.12	001		R05001 (06/22/2006) – Add Definition “Interconnected Operations Service” Minor Correction (03/20/2007) – Modify Definition
004-0.13	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.14	001		R05001 (06/22/2006) – Add Definition “Market Assembly”
004-0.15	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.16	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.17	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition Minor Correction (03/20/2007) – Modify Definition
004-0.18	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.19	001		R05001 (06/22/2006) – Add Definition “Request For Interchange (RFI)” Minor Correction (03/20/2007) – Modify Definition
004-0.20	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.21	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-0.22	000	001	Numbering added to definition R05001 (06/22/2006) – Modify Definition
004-1	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-1.6 in Version 000)

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Standard	Adopted	Revised	Action
004-1.1	000	001	R05001 (06/22/2006) – New Standard Language
004-1.2	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-1.3	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-1.4	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-1.5	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-1.6	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-2	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-6 in Version 000) R06026/2007 AP Item 1(b) (09/17/2007) – Modify Standard
004-2.1	000	001	R05001 (06/22/2006) – No change in standard language (Standard Number 004-1.6.1 in Version 0)
004-2.2	001 RESERVED		R05001 (06/22/2006) – No change in standard language (Standard Number 004-6.2 in Version 000) R06026/2007 AP Item 1(b) (09/17/2007) – Delete Standard
004-3	000	001	R05001 (06/22/2006) – Information from Appendix A and 004-1.1 added to standard after deletion of Appendix A
004-3.1	000	001	R05001 (06/22/2006) – Information from Appendix A and 004-1.1 added to standard after deletion of Appendix A
004-4	000	001	R05001 (06/22/2006)– No change in standard language (Standard Number 004-1.2 in Version 000) Minor Correction (03/20/2007) – Modify Standard
004-4.1	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-4.2	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-5	000	001	R05001 (06/22/2006) – Modify standard reference from Appendix D to Appendix C (Standard Numbers 004-1.3 and 004-1.5 in Version 0) Minor Correction (03/20/2007) – Modify Standard
004-6	000	001	R05001 (06/22/2006) – Modify standard reference from Appendix C to Appendix B (Standard Number 004-1.4 in Version 0) Minor Correction (03/20/2007) – Modify Standard
004-6.1	000	001	R05001 (06/22/2006) – New Standard Language Minor Correction (03/20/2007) – Modify Standard R05018 (09/17/2007) – Modify Standard
004-6.1.1	001		R05001 (06/22/2006) – No change in standard language (Standard Number 004-3.1 in Version 000) Minor Correction (03/20/2007) – Modify Standard R05018 (09/17/2007) – Modify Standard
004-6.1.2	001		R05001 (06/22/2006) – No change in standard language (Standard Number 004-3.1 in Version 000) Minor Correction (03/20/2007) – Modify Standard
004-6.2	000	001 RESERVED	R05001 (06/22/2006) –Moved Standard Language to 004-2.2 (Deleted standard number)

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Standard	Adopted	Revised	Action
004-7	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Numbers 004-2 and 004-2.1 in Version 0)
004-7.1	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-8	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Numbers 004-1.6, 004-7.1, 004-8.1 in Version 0)
004-8.1	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Numbers 004-1.6, 004-7.1, 004-8.1 in Version 0) Minor Correction (03/20/2007) – Modify Standard
004-8.2	000	001	R05001 (06/22/2006) – Modify standard to address Appendix A requirements, original Appendix A deleted
004-8.3	000	001 RESERVED	R05001 (06/22/2006) – Delete Standard
004-9	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-4.2 in Version 0) Minor Correction (03/20/2007) – Modify Standard
004-10	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-5 in Version 0)
004-11	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Numbers 004-8, 004-8.1 in Version 0) Minor Correction (03/20/2007) – Modify Standard
004-11.1	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-8.2 in Version 0)
004-11.2	001		R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-8.3 in Version 0)
004-11.2.1	001		R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-8.3 in Version 0)
004-11.3	001	001	R05001 (06/22/2006) – Add Standard for Clarity
004-12	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-9 in Version 0) Minor Correction (03/20/2007) – Modify Standard
004-13	000	001	R05001 (06/22/2006) – Modify Standard Language (Standard Number 004-10 in Version 0)
004-14	001		R05001 (06/22/2006) – No change in standard language (Standard Number 004-11 in Version 0)
004-14.1	001		R05001 (06/22/2006) – modify standard language (Standard Number 004-11.1 in Version 000)
004-15	001		R05001 (06/22/2006) – modify standard language (Standard Number 004-12 in Version 000)
004-16	001		R05001 (06/22/2006) – modify standard language (Standard Number 004-13 in Version 000)
004-17	001		R05001 (06/22/2006) – add standard language (NERC's V-0 standards contained ramping duration. However, NERC's V-1 did not; NAESB added it back for V-1 after conferring with NERC.)
004-17.1	001		R05001 (06/22/2006) – Add Standard (NERC's V-0 standards contained ramping duration. However, NERC's V-1 did not; NAESB added it back for V-1 after conferring with NERC.)

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Standard	Adopted	Revised	Action
004-17.2	001		R05001 (06/22/2006) – Add Standard (NERC’s V-0 standards contained ramping duration. However, NERC’s V-1 did not; NAESB added it back for V-1 after conferring with NERC.) Minor Correction (03/20/2007) – Modify Standard
004-A	000	001	R05001 (06/22/2006) – Modify Appendix (Appendix B in Version 000) Minor Correction (03/20/2007) – Modify Appendix R06026/2007 AP Item 1(b) (09/17/2007) - Modify Appendix
004-B	000	001	R05001 (06/22/2006) – Modify Appendix (Appendix C in Version 000) Minor Correction (03/20/2007) – Modify Appendix
004-C	000	001	R05001 (06/22/2006) – Modify Appendix (Appendix D in Version 000) Minor Correction (03/20/2007) – Modify Appendix R06025 (10/04/2007) – Modify Appendix
004-D	000	001	R05001 (06/22/2006) – Modify Appendix (Timing Table added which matches NERC’s table except for entities applicable to NERC would not include GPE, LSE, and PSE so NAESB included them in their table.) Minor Correction (03/20/2007) – Modify Appendix
WEQ-005 NAESB Area Control Error (ACE) Equation special Cases Standards			
Purpose	000		
Applicability	000		
Definition of Terms	000		Removed numbering (005-0) and modified heading from “Definitions” to “Definition of Terms” for consistency in publication of Version 001
005-0	000	001 RESERVED	Delete numbering from “Definitions” heading
005-0.1	000	001	Numbering added to definition
005-0.2	000	001	Numbering added to definition
005-0.3	000	001	Numbering added to definition
005-0.4	000	001	Numbering added to definition
005-0.5	000	001	Numbering added to definition
005-0.6	000	001	Numbering added to definition
005-0.7	000	001	Numbering added to definition
005-0.8	000	001	Numbering added to definition
005-0.9	000	001	Numbering added to definition
005-0.10	000	001	Numbering added to definition
005-0.11	000	001	Numbering added to definition
005-1	000		

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Standard	Adopted	Revised	Action
005-1.1	000		
005-1.2	000		
005-1.2.1	000		
005-1.2.2	000		
005-2	000		
005-2.1	000		
005-2.1.1	000		
005-2.1.1.1	000		
005-2.1.1.2	000		
005-3	000		
005.3.1	000		
005-3.1.1	000		
005-3.1.2	000		
005-3.1.3	000		
005-A	000		
WEQ-006 NAESB WEQ Manual Time Error Correction Standards			
Purpose	000		
Applicability	000		
Definition of Terms	000		Removed numbering (006-0) and modified heading from "Definitions" to "Definition of Terms" for consistency in publication in Version 001
006-0	000	001 RESERVED	Delete numbering from "Definitions" heading
006-0.1	000	001	Numbering added to definition
006-0.2	000	001	Numbering added to definition
006-0.3	000	001	Numbering added to definition
006-0.4	000	001	Numbering added to definition
006-0.5	000	001	Numbering added to definition
006-0.6	000	001	Numbering added to definition
006-0.7	000	001	Numbering added to definition
006-0.8	000	001	Numbering added to definition

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Standard	Adopted	Revised	Action
006-0.9	000	001	Numbering added to definition
006-0.10	000	001	Numbering added to definition
006-1	000		
006-1.1	000		
006-2	000		
006-3	000		
006-4	000	001	Minor Correction (08/22/2006) - Modify Standard
006-5	000	001	R05007 (06/22/2006) – Delete reference to “ERCOT” in the timing table. Minor Correction (08/22/2006) – Modify Table
006-6	000		
006-7	000		
006-7.1	000		
006-7.2	000		
006-8	000		
006-9	000		
006-10	000		
006-11	000		
006-12	000		
WEQ-007 NAESB WEQ Inadvertent Interchange Payback Standards			
Purpose	000		
Applicability	000		
Definition of Terms	000		Removed numbering (007-0) and modified heading from “Definitions” to “Definition of Terms” for consistency in publication in Version 001
007-0	000	001 RESERVED	Delete numbering from “Definitions” heading
007-0.1	000	001	Numbering added to definition
007-0.2	000	001	Numbering added to definition
007-0.3	000	001	Numbering added to definition
007-0.4	000	001	Numbering added to definition
007-0.5	000	001	Numbering added to definition
007-0.6	000	001	Numbering added to definition

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Standard	Adopted	Revised	Action
007-0.7	000	001	Numbering added to definition
007-0.8	000	001	Numbering added to definition
007-0.9	000	001	Numbering added to definition
007-0.10	000	001	Numbering added to definition
007-1	000		
007-1.1	000		
007-1.1.1	000		
007-1.1.1.1	000		
007-1.1.1.2	000		
007-1.1.2	000		
007-2	000		
007-A	000	001	R05007 (06/22/2006) – Delete reference to “ERCOT” in on and off peak table.
WEQ-008 NAESB WEQ Transmission Loading Relief (Eastern Interconnection) Standards			
Purpose	000		
Applicability	000		
Definition of Terms	000		Removed numbering (008-0) and modified heading from “Definitions” to “Definition of Terms” for consistency in publication in Version 001
008-0	000	001 RESERVED	Delete numbering from “Definitions” heading
008-0.1	001		R04013A (04/10/2006) – Add Definition
008-0.2	001		R04013A (04/10/2006) – Add Definition
008-0.3	001		R04013A (04/10/2006) – Add Definition
008-0.4	001		R04013A (04/10/2006) – Add Definition
008-0.5	001		R04013A (04/10/2006) – Add Definition
008-0.6	001		R04013A (04/10/2006) – Add Definition
008-0.7	001		R04013A (04/10/2006) – Add Definition
008-0.8	001		R04013A (04/10/2006) – Add Definition
008-0.9	001		R04013A (04/10/2006) – Add Definition
008-0.10	001		R04013A (04/10/2006) – Add Definition
008-0.11	001		R04013A (04/10/2006) – Add Definition

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Standard	Adopted	Revised	Action
008-0.12	001		R04013A (04/10/2006) – Add Definition
008-0.13	001		R04013A (04/10/2006) – Add Definition
008-0.14	001		R04013A (04/10/2006) – Add Definition
008-0.15	001		R04013A (04/10/2006) – Add Definition
008-0.16	001		R04013A (04/10/2006) – Add Definition
008-0.17	001		R04013A (04/10/2006) – Add Definition
008-0.18	001		R04013A (04/10/2006) – Add Definition
008-0.19	001		R04013A (04/10/2006) – Add Definition
008-0.20	001		R04013A (04/10/2006) – Add Definition
008-0.21	001		R04013A (04/10/2006) – Add Definition
008-0.22	001		R04013A (04/10/2006) – Add Definition
008-0.23	001		R04013A (04/10/2006) – Add Definition
008-0.24	001		R04013A (04/10/2006) – Add Definition
008-0.25	001		R04013A (04/10/2006) – Add Definition
008-0.26	001		R04013A (04/10/2006) – Add Definition
008-0.27	001		R04013A (04/10/2006) – Add Definition
008-0.28	001		R04013A (04/10/2006) – Add Definition
008-0.29	001		R04013A (04/10/2006) – Add Definition
008-0.30	001		R04013A (04/10/2006) – Add Definition
008-0.31	001		R04013A (04/10/2006) – Add Definition
008-0.32	001		R04013A (04/10/2006) – Add Definition
008-0.33	001		R04013A (04/10/2006) – Add Definition
008-0.34	001		R04013A (04/10/2006) – Add Definition
008-0.35	001		R04013A (04/10/2006) – Add Definition
008-0.36	001		R04013A (04/10/2006) – Add Definition
008-0.37	001		R04013A (04/10/2006) – Add Definition
008-0.38	001		R04013A (04/10/2006) – Add Definition
008-0.39	001		R04013A (04/10/2006) – Add Definition
008-0.40	001		R04013A (04/10/2006) – Add Definition

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Standard	Adopted	Revised	Action
008-0.41	001		R04013A (04/10/2006) – Add Definition
008-0.42	001		R04013A (04/10/2006) – Add Definition
008-0.43	001		R04013A (04/10/2006) – Add Definition
008-1	001		R04013A (04/10/2006) – Add Standard
008-1.1	001		R04013A (04/10/2006) – Add Standard
008-1.2	001		R04013A (04/10/2006) – Add Standard
008-1.2.1	001		R04013A (04/10/2006) – Add Standard
008-1.3	001		R04013A (04/10/2006) – Add Standard
008-1.3.1	001		R04013A (04/10/2006) – Add Standard
008-1.3.1.1	001		R04013A (04/10/2006) – Add Standard
008-1.3.2	001		R04013A (04/10/2006) – Add Standard
008-1.4	001		R04013A (04/10/2006) – Add Standard
008-1.5	001		R04013A (04/10/2006) – Add Standard
008-1.6	001		R04013A (04/10/2006) – Add Standard
008-2	001		R04013A (04/10/2006) – Add Standard
008-2.1	001		R04013A (04/10/2006) – Add Standard
008-2.1.1	001		R04013A (04/10/2006) – Add Standard
008-2.1.2	001		R04013A (04/10/2006) – Add Standard
008-2.1.3	001		R04013A (04/10/2006) – Add Standard
008-2.1.4	001		R04013A (04/10/2006) – Add Standard
008-2.1.5	001		R04013A (04/10/2006) – Add Standard
008-2.1.6	001		R04013A (04/10/2006) – Add Standard
008-2.1.7	001		R04013A (04/10/2006) – Add Standard
008-2.1.8	001		R04013A (04/10/2006) – Add Standard
008-2.2	001		R04013A (04/10/2006) – Add Standard
008-2.2.1	001		R04013A (04/10/2006) – Add Standard
008-2.2.1.1	001		R04013A (04/10/2006) – Add Standard
008-2.2.1.2	001		R04013A (04/10/2006) – Add Standard
008-2.3	001		R04013A (04/10/2006) – Add Standard

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Standard	Adopted	Revised	Action
008-2.3.1	001		R04013A (04/10/2006) – Add Standard
008-2.3.1.1	001		R04013A (04/10/2006) – Add Standard
008-2.3.1.2	001		R04013A (04/10/2006) – Add Standard
008-2.4	001		R04013A (04/10/2006) – Add Standard
008-2.4.1	001		R04013A (04/10/2006) – Add Standard
008-2.4.2	001		R04013A (04/10/2006) – Add Standard
008-2.4.3	001		R04013A (04/10/2006) – Add Standard
008-2.4.4	001		R04013A (04/10/2006) – Add Standard
008-3	001		R04013A (04/10/2006) – Add Standard
008-3.1	001		R04013A (04/10/2006) – Add Standard
008-3.2	001		R04013A (04/10/2006) – Add Standard
008-3.2.1	001		R04013A (04/10/2006) – Add Standard
008-3.2.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.2.1.2	001		R04013A (04/10/2006) – Add Standard
008-3.2.2	001		R04013A (04/10/2006) – Add Standard
008-3.2.3	001		R04013A (04/10/2006) – Add Standard
008-3.2.4	001		R04013A (04/10/2006) – Add Standard
008-3.2.5	001		R04013A (04/10/2006) – Add Standard Minor Correction (11/16/2007) - correction in reference to NERC standards.
008-3.3	001		R04013A (04/10/2006) – Add Standard
008-3.3.1	001		R04013A (04/10/2006) – Add Standard Minor Correction (11/16/2007) - correction in reference to NERC standards.
008-3.3.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.3.1.2	001		R04013A (04/10/2006) – Add Standard Minor Correction (11/16/2007) - correction in reference to NERC standards.
008-3.3.2	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.1	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.2	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.3	001		R04013A (04/10/2006) – Add Standard

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Standard	Adopted	Revised	Action
008-3.3.2.4	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.5	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.6	001		R04013A (04/10/2006) – Add Standard
008-3.3.2.6.1	001		R04013A (04/10/2006) – Add Standard
008-3.3.3	001		R04013A (04/10/2006) – Add Standard
008-3.3.3.1	001		R04013A (04/10/2006) – Add Standard
008-3.3.4	001		R04013A (04/10/2006) – Add Standard
008-3.3.5	001		R04013A (04/10/2006) – Add Standard
008-3.3.5.1	001		R04013A (04/10/2006) – Add Standard
008-3.3.5.2	001		R04013A (04/10/2006) – Add Standard
008-3.3.5.3	001		R04013A (04/10/2006) – Add Standard
008-3.3.5.4	001		R04013A (04/10/2006) – Add Standard
008-3.4	001		R04013A (04/10/2006) – Add Standard
008-3.4.1	001		R04013A (04/10/2006) – Add Standard
008-3.4.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.4.1.2	001		R04013A (04/10/2006) – Add Standard Minor Correction (11/16/2007) - correction in reference to NERC standards.
008-3.4.2	001		R04013A (04/10/2006) – Add Standard
008-3.4.3	001		R04013A (04/10/2006) – Add Standard
008-3.4.4	001		R04013A (04/10/2006) – Add Standard
008-3.5	001		R04013A (04/10/2006) – Add Standard
008-3.5.1	001		R04013A (04/10/2006) – Add Standard
008-3.5.2	001		R04013A (04/10/2006) – Add Standard
008-3.5.2.1	001		R04013A (04/10/2006) – Add Standard Minor Correction (11/16/2007) - correction in reference to NERC standards.
008-3.6	001		R04013A (04/10/2006) – Add Standard
008-3.6.1	001		R04013A (04/10/2006) – Add Standard
008-3.6.2	001		R04013A (04/10/2006) – Add Standard
008-3.6.2.1	001		R04013A (04/10/2006) – Add Standard
008-3.6.2.1.1	001		R04013A (04/10/2006) – Add Standard

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Standard	Adopted	Revised	Action
008-3.6.2.2	001		R04013A (04/10/2006) – Add Standard
008-3.6.2.3	001		R04013A (04/10/2006) – Add Standard Minor Correction (08/31/2007) - Applied
008-3.6.2.3.1	001		R04013A (04/10/2006) – Add Standard
008-3.6.2.3.2	001		R04013A (04/10/2006) – Add Standard
008-3.7	001		R04013A (04/10/2006) – Add Standard
008-3.7.1	001		R04013A (04/10/2006) – Add Standard
008-3.7.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.7.1.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.7.1.2	001		R04013A (04/10/2006) – Add Standard
008-3.7.1.3	001		R04013A (04/10/2006) – Add Standard
008-3.7.1.3.1	001		R04013A (04/10/2006) – Add Standard
008-3.7.1.3.2	001		R04013A (04/10/2006) – Add Standard
008-3.8	001		R04013A (04/10/2006) – Add Standard
008-3.9	001		R04013A (04/10/2006) – Add Standard
008-3.9.1	001		R04013A (04/10/2006) – Add Standard
008-3.10	001		R04013A (04/10/2006) – Add Standard
008-3.11	001		R04013A (04/10/2006) – Add Standard
008-3.11.1	001		R04013A (04/10/2006) – Add Standard
008-3.11.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.11.2	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.1	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.1.1	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.1.2	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.1.3	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.1.4	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.2	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.2.1	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.2.2	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.2.3	001		R04013A (04/10/2006) – Add Standard

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Standard	Adopted	Revised	Action
008-3.11.2.2.4	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.3	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.4	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.4.1	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.4.2	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.5	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.6	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.7	001		R04013A (04/10/2006) – Add Standard
008-3.11.2.8	001		R04013A (04/10/2006) – Add Standard
008-A	001		R04013A (04/10/2006) – Add Appendix
008-B	001		R04013A (04/10/2006) – Add Appendix
008-C	001		R04013A (04/10/2006) – Add Appendix
008-D	001		R04013A – Add Appendix R06002 (09/01/2006) – Modify Section B
WEQ-009 NAESB WEQ Standards of Conduct for Electric Transmission Providers Standards			
Applicability	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.
Definition of Terms	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.
009-0	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.
009-1	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.
009-2	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.
009-3	000 RESERVED		
009-4	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.
009-5	000	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006.

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Standard	Adopted	Revised	Action
009-6	001	001 RESERVED	Minor Correction (10/31/2007) – Delete WEQ-009 standards in their entirety, as supportive of para. 72, FERC Order No. 676, Docket No. RM05-5-000, issued April 25, 2006 and is duplicated in the OASIS standard WEQ-002-4.5.2.
WEQ-010 NAESB WEQ Contracts Related Standards			
010-1	000		
WEQ-011 NAESB WEQ Gas / Electric Coordination Standards			
Introduction	001		Add heading for consistency in publication of Version 001
Definition of Terms	001		
011-0.1	001		R04021 (07/08/2005) – Add Definition
011-0.2	001		R04021 (07/08/2005) – Add Definition
011-0.3	001		R04021 (07/08/2005) – Add Definition
011-1.1	001		R04021 (07/08/2005) – Add Standard
011-1.2	001		R04021 (07/08/2005) – Add Standard
011-1.3	001		R04021 (07/08/2005) – Add Standard
011-1.4	001		R04021 (07/08/2005) – Add Standard
011-1.5	001		R04021 (07/08/2005) – Add Standard
011-1.6	001		R04021 (07/08/2005) – Add Standard
WEQ-012 NAESB Public Key Infrastructure (PKI) Standards			
Recommended Standard Introduction	001		
Certification	001		
Scope	001		
Commitment to Open Standards	001		
Definition of Terms	001		
012-0.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition

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Standard	Adopted	Revised	Action
012-0.6	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.7	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.8	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.9	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.10	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.11	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.12	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.13	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.14	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-0.15	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Definition
012-1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.2.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.2.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.3.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.3.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.3.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.3.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.4.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.4.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.4.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.4.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard

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Standard	Adopted	Revised	Action
012-1.4.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.6	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.6.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.7	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.8	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.9	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.9.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.9.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.9.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.9.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.9.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.10	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.11	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.12	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.13	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.14	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.15	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.16	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.17	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.18	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.18.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.18.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.18.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard

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Standard	Adopted	Revised	Action
012-1.19.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.6	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.7	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.19.8	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.20	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.21	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012.1.21.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.21.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.21.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.21.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.22	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.22.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.22.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.22.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.23	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.23.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.23.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.23.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.23.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.23.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.24	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard

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Standard	Adopted	Revised	Action
012-1.25	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.26	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.26.1	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.26.2	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.26.3	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.26.4	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
012-1.26.5	001		WEQ 2006 Annual Plan Item 3(b)(iii)/R03007 (02/10/2007) – Add Standard
WEQ-013 Business Practices for Open Access Same-Time Information Systems (OASIS) Implementation Guide, Version 1.4			
Introduction	001		
Usage of Terms	001		
013-0.1	001		R07002 (09/17/2007) – Add Usage of Term “OASIS”
013-0.2	001		R07002 (09/17/2007) – Add Usage of Term “Business Practice”
013-0.3	001		R07002 (09/17/2007) – Add Usage of Term “Template”
013-0.4	001		R07002 (09/17/2007) – Add Usage of Terms “Must, shall, or required”
013-0.5	001		R07002 (09/17/2007) – Add Usage of Terms “May, should, or optional”
013-1	001 RESERVED		
013-1.1	001 RESERVED		
013-2	001		R07002 (09/17/2007) – OASIS S&CP Standards 002-4.10.2 and 002-4.10.2.1 have been consolidated into 013-2.
013-2.1	001		R07002 (09/17/2007) – Enumerated values for OASIS REQUEST_TYPE data element from OASIS S&CP Standard 002-4.2.13 have been consolidated into 013-2.1.
013-2.2	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.2.10.2 Status Values has been incorporated into Standard 013-2.2.
013-2.3	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.4	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.

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Standard	Adopted	Revised	Action
013-2.4.1	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.4.2	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.5	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.6	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.6.1	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.6.1.1	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.6.1.2	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.
013-2.6.2	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards. Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.
013-2.6.3	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards. Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.
013-2.6.4	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards. Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.

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Standard	Adopted	Revised	Action
013-2.6.5	001		<p>R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.</p> <p>Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.</p>
013-2.6.5.1	001		<p>R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.</p> <p>Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.</p>
013-2.6.5.2	001		<p>R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.</p> <p>Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.</p>
013-2.6.6	001		<p>R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.</p> <p>Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.</p> <p>Changed Capacity Available to a data element name and Redirect to a data value in the second paragraph.</p>
013-2.6.7	001		<p>R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.</p> <p>Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.</p>
013-2.6.7.1	001		<p>R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards.</p> <p>Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.</p> <p>Added section references to the fourth paragraph.</p>

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Standard	Adopted	Revised	Action
013-2.6.7.2	001		R07002 (09/17/2007) – All OASIS S&CP Standards contained under 002-4.2.13 and subordinate Standards have been incorporated and extended under new Standards 013-2.3 through 013.2.6 and subordinate Standards. Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates.
013-3	001		R07002 (09/17/2007) – Standards added to describe specific implementation requirements associated with certain OASIS Standard Templates.
013.3.1	001		R07002 (09/17/2007) – Standards added to describe specific implementation requirements associated with certain OASIS Standard Templates.
013-3.2	001		R07002 (09/17/2007) – Standards added to describe specific implementation requirements associated with certain OASIS Standard Templates. Minor Correction (10/23/2007) – Added note for each table in the following standards to indicate the data elements listed are not necessarily the same order as they are required within the OASIS templates. Updated reference to NERC Electronic Tagging Functional Specification. Second table corrected Restriction/Requirement for CUSTOMER_CODE and CUSTOMER_DUNS to reference Transmissions Customer rather than SELLER.
013-4	001		R07002 (09/17/2007) - Add Standard Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document. Added last sentence at the end of section.
013-4.1.1	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.
013-4.1.2	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.

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Standard	Adopted	Revised	Action
013-4.1.3	001		<p>R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.</p> <p>Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.</p>
013-4.1.4	001		<p>R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.</p> <p>Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.</p> <p>Replaced references of Information Provider to OASIS in examples a, b, and d. Replaced reference of Information Provider to Primary Provider in example e.</p>
013-4.1.5	001		<p>R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.</p> <p>Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.</p>
013-4.1.6	001		<p>R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.</p> <p>Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.</p>
013-4.1.6.1	001		<p>R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.</p> <p>Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.</p>
013-4.1.6.2	001		<p>R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1.</p> <p>Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.</p>

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Standard	Adopted	Revised	Action
013-4.1.6.3	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1.6.4	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1.6.5	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1.6.6	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1.7	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1.7.1	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.
013-4.1.7.2	001		R07002 (09/17/2007) – OASIS S&CP Standard 002-4.4, File Examples, and all subordinate standards have been incorporated into this document in their entirety into Standard 013-4.1. Minor Correction (10/23/2007) – Updated all examples in sub-sections to match order of data elements documented in the templates as specified in WEQ-002 OASIS Standards and Communication Protocols Document.

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Standard	Adopted	Revised	Action
013-4.2	001		R07002 (09/17/2007) – Examples of Ancillary Services linkage to Transmission Services from OASIS S&CP Standard 002-4.2.12 have been incorporated into this document in their entirety into Standard 013-4.2.





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