DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Part 37

[Docket No. RM95–9–003]

Open Access Same-Time Information System and Standards of Conduct

Issued June 18, 1998.

AGENCY: Federal Energy Regulatory Commission.

ACTION: Order on OASIS-related issues.

SUMMARY: In this order, the Federal Energy Regulatory Commission (the Commission): finds that ''source and sink'' information must be unmasked at the time when a transmission provider updates the transmission reservation posting to show the customer's confirmation that it wishes to finalize a transaction; implements interim procedures for the on-line negotiation of transmission service price discounts; and adopts a comprehensive update of the OASIS Standards and Communications Protocols Document that implements a number of findings made by the Commission in Order No. 889–A and in response to industry suggestions.

DATES: The current S&CP Document (Version 1.1), as modified to incorporate the interim procedures on price negotiation, is to become effective on September 18, 1998. The revised S&CP Document (Version 1.2) is to become effective on December 1, 1998. The revisions to the S&CP Document in § 4.3.7.b, pertaining to the masking of source and sink information, are to become effective on January 1, 1999.

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Before Commissioners: James J. Hoecker, Chairman; Vicky A. Bailey, William L. Massey, Linda Breathitt, and Curt Hébert, Jr.

Order on OASIS-Related Issues

I. Background

The Commission has determined that open access non-discriminatory transmission service requires that information about the transmission system must be made available to all transmission users at the same time by way of the Open Access Same-Time Information System (OASIS).[1] The

[1] Open Access Same-Time Information System and Standards of Conduct, Order No. 889, FERC Stats. & Regs. ¶ 31,035, 61 FR 21,737 (1996); *order granting request for clarification*, 77 FERC ¶ 61,335 (1996); *order on reh'g*, Order No. 889–A, FERC Stats. & Regs. ¶ 31,049, 62 FR 12484 (1997); and order denying reh'g, Order No. 889–B, 81 FERC ¶ 61,253, 62 FR 64715 (1997).

See also Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, FERC Stats. & Regs. ¶ 31,036, 61 FR 21540 (1996); *order on*

current Phase I OASIS is an Internet-based electronic communication and reservation system through which transmission providers[2] furnish potential transmission customers with information pertaining to the availability and price of transmission and ancillary services and potential customers may select and procure those services in the form of service reservations.[3] To ensure that individual OASIS nodes present information in a consistent and uniform manner, the Commission has relied upon the industry to develop standards and protocols for the Commission's review and approval that specify, among other things, OASIS templates defining the information that must be presented to customers interested in procuring transmission-related services, both in the interactive form of graphical displays or screens, and in the form of downloadable files. To this end, EPRI and NERC have jointly facilitated the ongoing activities of the OASIS ''How'' Working Group (How Group)[4] to develop suitable OASIS standards and communications protocols.[5] In this order, we address several OASIS matters raised in connection with our directives in Order No. 889–A, various submittals from the How Group, and comments from interested persons.[6]

In Order No. 889–A, we determined that any ''negotiation'' between a transmission provider and a potential transmission customer over price discounts should take place on the OASIS, visible to all market participants. We also ordered some minor revisions to the OASIS regulations,[7] and requested that the How Group recommend certain changes to the S&CP Document consistent with the determinations we made in Order No. 888–A.[8] We made a request to the How Group to propose any conforming changes that might be necessary to the S&CP Document by June 2, 1997, and to inform the Commission of the earliest date by which the industry could meet our transmission service negotiation and price discount disclosure requirements during Phase I.

On June 27, 1997, the How Group proposed interim measures to allow on-line transmission service negotiation and posting of price discounts on currently configured Phase I OASIS nodes pending development of a more satisfactory method.

The How Group also sought clarification of the Commission's stated intention regarding source and sink[9] disclosure in Order No. 889–A. In that order, we deleted from the OASIS regulations provisions permitting transmission customers to request that transmission providers posting transmission and ancillary service requests and responses under § 37.6(e) temporarily mask the identities of the parties to the transaction during and after negotiations for transmission service.[10] The How Group asked if this meant that the source and sink information routinely provided by potential transmission customers and reported on OASIS transmission service request templates was also to be divulged. In addition, the How Group requested clarification as to whether a transmission price ''discount'' as used in Order No. 889–A refers to any price below the ceiling price.

On July 15, 1997, we issued a notice concerning the How Group's June 27 filing and invited public comment on the request for clarification of the Commission's masking requirements, the proposed interim measures for on-line transmission service negotiations, and the posting of transmission price discounts. The 13 comments we received are referred to herein as ''Comments on How Group's June 27 letter''.[11]

On August 12, 1997, the How Group submitted an updated revised S&CP Document (Phase IA S&CP Document) to fully implement our transmission price discount negotiation policy and the minor revisions enumerated in Order No. 889–A.[12] In addition to replacing the How Group's interim measures with more comprehensive procedures, the Phase IA S&CP Document incorporates several proposals prompted by the industry's experience in doing business using OASIS. The How Group proposes implementation six months after approval by the Commission, in order to allow four months for standards and protocol development and beta testing and two months for training and full scale testing.

On August 29, 1997, we issued a notice inviting public comment on the August 12 submittal. Four comments

reh'g, Order No. 888–A, FERC Stats. & Regs. ¶ 31,048, 62 FR 12274, 62 FR 64688 (1997); *order on reh'g*, Order No. 888–B, 81 FERC ¶ 61,248 (1997); and *order on reh'g*, Order No. 888–C, 82 FERC ¶ 61,046 (1998).

[2] The term ''Transmission Provider'' is defined at § 37.3(a) of the Commission's OASIS regulations, 18 CFR Part 37 (1997), as:

''any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce.''

[3] Early work on OASIS development has focused on facilitating the more frequently sought short term point-to-point transmission related services. Phase I of OASIS development has involved the establishment of basic OASIS sites (nodes) by each transmission provider, by January 3, 1997, with ongoing refinements that permit potential transmission customers to reserve transmission capacity and related services. OASIS Phase II contemplates fully functional OASIS nodes that additionally will allow on-line scheduling of transmission service and of the energy associated with transmission service that now must be accomplished off-OASIS by facsimile or telephone.

[4] A list of the abbreviations of names used in this order is provided in Attachment 1.

[5] Section 37.5(b)(2) of the OASIS regulations, 18 CFR 37.5(b)(2) (1997), requires that each transmission provider operate its OASIS node in compliance with the standardized procedures specified in the OASIS Standards and Communications Protocols document (referred to herein as the S&CP Document).

[6] In Order No. 889–A, we directed a number of changes to OASIS that are listed at note 64, *infra*. The submittals from the How Group included responses to the directives in Order No. 889–A, as well as requests for clarification and suggestions for additional changes to the S&CP Document based on business experience under OASIS.

[7] The minor revisions involved corrections of examples, typographical errors, out-of-date cross references, and similar changes.

[8] Consistent with this finding, we made a request to the How Group to make recommendations on eliminating any references in the S&CP Document (Version 1.1) pertaining to masking the identities of parties to the transmission transaction (*e.g.*, at § 4.3.7.b). We also made a request to the How Group to make recommendations on revising the templates used for the posted transmission service offerings (at § 4.3.2), the status of transmission service requests (at § 4.3.7), and the status of ancillary service requests (at § 4.3.9) to include: (1) the transmission provider's transmission and ancillary services maximum (ceiling) rates; (2) the transmission provider's offering price; (3) the price requested by the customer; and (4) the details of the negotiated transaction. *See* Order No. 889–A, FERC Stats. & Regs. ¶ 31,049 at 30,568.

[9] As we explain further below, depending on the requirements of the transmission provider, source and sink information, specifying the location of the generator(s) and the location of the ultimate load, may either refer to control areas in which the generation or load are located, or to specific generator or load busses.

[10] The relevant and now deleted OASIS regulations, at §§ 37.6(e)(1)(iii) and 37.6(e)(3)(i), respectively, read:

''The identify of the parties will be masked—if requested—during the negotiating period and for 30 days from the date when the request was accepted, denied or withdrawn.

When any transaction is curtailed or interrupted, the curtailment or interruption must be posted (with the identities of the parties masked as required in § 37.6(e)(1)(iii)) and must state the reason why the transaction could not be continued or completed. ''

[11] Comments on the June 27, 1997 letter were filed by APPA, CILCO, CCEM, Commonwealth Edison, CPEX, Electric Clearinghouse (jointly with PECO Energy), EPSA, Florida Power Corp, NRECA, NYSEG, PJM, and Southern (on behalf of Alabama Power, Georgia Power, Gulf Power, Mississippi Power, and Savannah). The How Group also filed comments, on September 22, 1997, which included proposed revisions to the S&CP Document to accommodate its proposed interim procedures for on-line transmission service negotiations and the posting of transmission price discounts.

[12] The How Group submitted a preliminary draft version of this proposal on July 9, 1997. Further additions, clarifications and corrections to the August 12, 1997 filing, were submitted on September 23, 1997.

were filed and are referred to herein as ''Comments on Phase IA''.[13]

II. Discussion

A. Overview

In this order, we: (1) conclude that the source and sink information reported on OASIS transmission service request templates should be unmasked at the time when a transmission provider updates the transmission reservation posting to show the customer's confirmation that it wishes to finalize the transaction; (2) require modifications to the operative language in the existing S&CP Document (Version 1.1) to incorporate our findings on unmasking source and sink information (to become effective on January 1, 1999) and on proposed interim measures (to become effective 60 days from the date of publication of this order in the **Federal Register**; and (3) adopt, with the revisions discussed below, the Phase IA S&CP Document (as corrected by the How Group in its September 23, 1997 submittal), as Version 1.2, to become effective on December 1, 1998. For clarity, we address the issues raised by the various How Group submittals and related public comments on an issue-by-issue basis.

B. Masking of Source and Sink Related Information

The Commission has been asked to decide whether certain information routinely provided by potential transmission customers, which pertains to the location of the generator(s) (source) and the location of the ultimate load (sink) [collectively, source and sink information] should be made publicly available (by a posting on the OASIS) or should be kept confidential (and made available only to transmission system operators). This information, which helps define the transmission service being requested,[14] is submitted to the transmission provider by the potential transmission customer when it completes the TRANSREQUEST template as part of its initial request for transmission service.

Under the current S&CP Document, the source and sink information becomes an element of the transmission provider's response to the potential transmission customer's query on the status of its pending service request.[15] However, since such information might be used to infer the identifies of the power supplier and the power purchaser associated with a pending transmission service request, historically this element of the response has been masked. In connection with the masking of certain other information, in Order No. 889–A, we decided to delete the temporary masking option provisions in our OASIS regulations (formerly found in § 37.6(e)(1)(iii) and § 37.6(e)(3)(i), *see supra* note 10) applicable to the identities of the parties to the transmission transaction (*i.e.*, the transmission provider and the potential transmission customer), since our price discount policy calls for the identities of the parties negotiating the discount to be made public during the negotiation period.[16] Accordingly, we asked the How Group to eliminate any references in the S&CP Document to the masking of the identities of transaction parties.[17] We reaffirmed this decision in Order No. 889–B.[18]

In its June 27, 1997, submittal, the How Group asks us to clarify whether Order No. 889–A intended to require the unmasking of the source and sink information posted on the TRANSSTATUS and other templates covered by § 4.3.5b of the S&CP Document. Although the How Group prepared and provided a summary of the positions of transmission providers and transmission customers on this issue,[19] we invited further public comments on the matter.[20]

Comments

1. Business Sensitivity and Competitive Effect. It is not clear that all commenters mean the same thing by source and sink. Some appear to refer to the exact location of the generation and load, while others appear to refer to the control area, which may cover a much broader geographic area. With regard to the impact that unmasking of source and sink information may have on competition, Commonwealth Edison, CCEM, EPSA, and PECO Energy predict that unmasking will result in the elimination of the role that power marketers play in electricity markets in matching the needs of power suppliers

[13] Comments on the How Group's Phase IA submittal were filed by AEP, How Group/Commercial Practices Group, PECO, and Southern. The How Group/Commercial Practices Group comments included the September 23, 1997 revision of the Phase IA S&CP Document incorporating clarifications and minor corrections.

In addition, on April 3, April 9, April 10, and April 27, 1998, the How Group submitted a series of corrections and revisions to its OASIS Phase IA submittal incorporating various clarifications and minor corrections to the S&CP Document. Each successive submittal superseded all pending earlier submittals. We issued a notice of the April 10, 1998 submittal and not of those earlier submittals that it superseded (the April 27 corrections were submitted as comments on the April 10, 1998 submittal). We expected to act on the latest corrections of the How Group in this order. However, with so many revisions, we are uncertain that all errors have been identified. We therefore invite the How Group to file with the Commission a revised Phase IA submittal, within 21 days of the date of issuance of this order, in WordPerfect 6.1 format, that to the greatest extent possible identifies all needed corrections to the S&CP Document. We request that the transmittal letter for this submittal provide a complete explanation of all revisions and why they are being proposed. We also request that the submittal contain both a clean version and a redline/strikeout version showing changes between that version and the one being issued in this order. We will issue a public notice when we these documents are filed and will take action on the How Group's recommendations shortly thereafter.

[14] Source and sink information for point-to-point transmission service describes the location of the generators and the ultimate load in an electric system sense, and does not necessarily identify sellers and buyers by name. In accordance with the convention of the transmission provider under its individual Open Access Tariff (the Pro Forma Tariff allowed each transmission provider to determine this for itself in its Open Access Tariff filing) this source and sink information may routinely include only the identities of the respective control areas (*e.g.*, in the case of point-to-point transmission across a transmission provider's system, the point of receipt is identified as a control area and the point of delivery is similarly identified), or it may include the identities of the respective bus bars of the particular generators and loads (*e.g.*, in the case of transmission within, out of or into a transmission provider's transmission system). *See*, the Data Element Dictionary, accompanying the S&CP Document that, for template purposes, defines ''source'' as ''[t]he area in which the SOURCE is located'' and ''sink'' as ''[t]he area in which the SINK is located.''

The source and sink information here at issue is the source and sink information reported on OASIS templates. We are not addressing, and not requiring the disclosure of, information collected from customers as part of a complete application for transmission service under the Pro Forma Tariff, including information on whether the requested transmission service is feasible (*e.g.*, the NERC ''tagging'' information that might accompany the scheduling of transmission service). *See* Coalition Against Private Tariffs, and Western Resources, Inc., 83 FERC ¶ 61,015 (1998), *reh'g pending* (*CAPT*). *CAPT* is further discussed *infra* at notes 47, 74, and 76.

[15] *See also* ''service request'' transaction templates at § 4.3.5 of the S&CP Document.

[16] Order No. 889–A, FERC Stats. & Regs. at 30,569–70.

[17] *Id.* The How Group made this deletion in its August 12, 1997, Phase IA filing.

[18] Order No. 889–B, 81 FERC at 62,175.

[19] In its June 27, 1997 letter, the How Group summarized the positions of interest groups as follows:

- Transmission Providers generally do not have a preference on this issue, although it is technically easier for them if there is no masking on OASIS at all.
- Transmission customers involved in merchant activities strongly support having source and sink identity masked from competitors indefinitely or for as long as possible because they consider this information to be business sensitive.

[20] The Commission invited comments on: (1) why some parties consider this information to be business sensitive or confidential while others do not; (2) whether public access to this information might harm competition and reduce efficiency, and if so, why; (3) whether, in the event that source and sink information continues to be masked, competitors will be able to accurately infer this information from other sources; and (4) the implications of unmasking for contract path and flow-based pricing regimes for reserving transmission capability.

to sell their generation output with the needs of power purchasers to meet their loads.[21] They posit that once the location of the generating facility (source) and the location of the load ultimately served (sink) for each point-to-point transmission service transaction is made publicly available, such information will be used by each party (*i.e.*, the power supplier and the power purchaser) to match up their respective needs and deal directly with each other, if possible, to their mutual advantage and to avoid the power marketer's mark-up.

Florida Power Corp believes that unmasking source and sink information will eliminate some opportunities for marketers, if this information is made publicly available when transmission services are reserved, because power suppliers and power purchasers will then have time to negotiate directly.[22]

APPA points to the technical burden that masking efforts place on transmission providers.[23] It further argues that the bypass of power marketers that might be caused by unmasking is actually an efficient outcome, if all that unmasking adds to the overall transaction is the possibility of direct matching of the power supplier and the power purchaser. APPA asserts that those entities warning that the unmasking of source and sink information will cause harm to power marketers are really confusing a threat of private harm with societal harm. In its view, making source and sink information publicly available would serve the interests of ultimate customers.[24]

PJM sees no reason to mask source and sink information. It believes that providing this information to all market participants will increase both competition and the overall efficiency of the market.[25] NYSEG shares the view that electricity markets may become more efficient with more transmission information made available on a non-discriminatory basis.[26]

Southern suggests that the Commission should not unmask source and sink information unless it has a strong policy reason to do so.[27] Both EPSA and PECO Energy acknowledge the apparent benefit of unmasking source and sink information, but contend that such benefits will not be realized in practice, especially at this early stage when competitive electricity markets are still evolving.[28] They also argue that unmasking source and sink information would result in the loss of significant benefits they claim power marketers now bring to electricity markets, including liquidity, risk management, and creativity in meeting the unique needs of power suppliers and power purchasers.[29] EPSA foresees the competitiveness of electricity markets being undermined by unmasking, with markets eventually returning to monopoly power suppliers and captive power purchasers.[30] CPEX also sees unmasking as a serious threat to competitive electricity markets.[31]

CCEM makes the commercial business argument that unmasking will compel power marketers to give up the benefits that they provide without being compensated.[32] It further argues that the threat of after-the-fact audits should be sufficient to discourage instances of undue discrimination in the provision of transmission services and that unmasking is unnecessary for this purpose.

With regard to more improved utilization of transmission systems, NYSEG asserts that unmasking will allow all transmission users to gauge what impact a given transmission service transaction will have on the transmission provider's system.[33] NRECA suggests unmasking will provide transmission users with a better idea of the planned and scheduled uses of the transmission system and what additional transmission capacity is available. While it supports making source and sink information available at the time when transmission providers and potential transmission customers finalize reservations and energy schedules, NRECA opposes unmasking during the period when transmission reservation requests and the associated off-OASIS energy schedule requests are still pending.[34] Commonwealth Edison sees any enhancement of transmission system capacity analysis by transmission customers resulting from the disclosure of source and sink information, as being only theoretical. It asserts that postings of ''available transmission capacity'' (ATC) provide sufficient information for customers to analyze the impacts that various transmission transactions may have on the transmission system and its users.[35]

2. Other Information Sources and the Need for Source and Sink Information. With regard to whether similar information might be available elsewhere, which would allow the identity of the power supplier and the power purchaser associated with a given transmission transaction to be inferred even if masking is continued, Commonwealth Edison and Florida Power Corp opine that it would be extremely difficult to bypass power marketers by obtaining similar information from other sources.[36] NRECA contends that source and sink information will be available from the NERC transaction information system or the tagging form.[37] PECO Energy and Commonwealth Edison believe that unmasking should not be viewed as a reliability matter.[38]

Some commenters question the underlying need for source and sink information, even if it is not made publicly available. CPEX asserts that requiring source and sink information is an unnecessary burden on merchants and that the only information that system operators need to assure transmission reliability is information on power being sent and received through their control areas.[39] In CPEX's view, this is sufficiently covered by ATC without need for specific information on the source and the sink. CPEX further claims that transmission curtailment is only infrequently needed and, when it is, it is implemented by shifting among alternative generation sources without reliance on source and sink information. APPA, however,

[21] EPSA Comments on How Group's June 27 letter at p. 4; PECO Energy Comments on How Group's June 27 letter at p. 4; Commonwealth Edison Comments on How Group's June 27 letter at p. 2; and CCEM Comments on How Group's June 27 letter at p. 7.

[22] Florida Power Corp Comments on How Group's June 27 letter at pp. 1–2.

[23] APPA Comments on How Group's June 27 letter at p. 1.

[24] APPA Comments on How Group's June 27 letter at p. 3.

[25] PJM Comments on How Group's June 27 letter at p. 1.

[26] NYSEG Comments on How Group's June 27 letter at p. 2.

[27] Southern Comments on How Group's June 27 letter at p. 4.

[28] EPSA Comments on How Group's June 27 letter at p. 4 and PECO Energy Comments on How Group's June 27 letter at p. 3.

[29] EPSA Comments on How Group's June 27 letter at p. 4 and PECO Energy Comments on How Group's June 27 letter at p. 4.

[30] EPSA Comments on How Group's June 27 letter at p. 4.

[31] CPEX Comments on How Group's June 27 letter at pp. 3–4.

[32] CCEM Comments on How Group's June 27 letter at p. 4.

[33] NYSEG Comments on How Group's June 27 letter at p. 1.

[34] NRECA Comments on How Group's June 27 letter at pp. 1–2.

[35] Commonwealth Edison Comments on How Group's June 27 letter at p. 2.

[36] Commonwealth Edison Comments on How Group's June 27 letter at p. 3 and Florida Power Corp Comments on How Group's June 27 letter at p. 3.

[37] NRECA Comments on How Group's June 27 letter at pp. 1–2.

[38] PECO Energy Comments on How Group's June 27 letter at p. 2 and Commonwealth Edison Comments on How Group's June 27 letter at p. 4.

[39] CPEX Comments on How Group's June 27 letter at pp. 1–3.

complains that NERC has a policy of treating tagging information as confidential.[40] Finally, EPSA contends that the adverse competitive impacts of unmasking outweigh the limited benefits of source and sink information being collected, since the information is of only marginal relevance in the rare situation when there is a transmission constraint.[41]

3. Differing Impacts on Contract Path and Flow-Based Transmission Pricing Regimes. With regard to whether unmasking source and sink information affects either a contract path or flow-based transmission capacity pricing regime,[42] PJM sees unmasking making no difference.[43] Florida Power Corp notes that the method of calculating ATC for transmission service reservation purposes for either pricing regime is the same and, for this reason, asserts that neither pricing regime influences the decision of whether this information should be unmasked.[44] Finally, APPA asserts that source and sink information is essential under both transmission reservation pricing regimes for determining the potential impact of a request and all parties should have equal and full knowledge of this information.[45]

Commission Conclusion

Initially, we note that this proceeding does not concern whether the transmission provider should collect source and sink information from a potential customer seeking point-to-point transmission service. Point of receipt and point of delivery information is necessary for the transmission provider and we are not entertaining comments directed at challenging the necessity to collect this type of information in this proceeding. Nor does this proceeding concern questions regarding NERC tagging information.[46]

The issue here is whether to unmask, that is, make known to all parties, point-to-point transmission service source and sink information now made known to transmission system operators. We are persuaded that such source and sink information[47] should be disclosed publicly through an OASIS posting at the time when the transmission provider updates the OASIS posting to show that a customer has confirmed its request for point-to-point transmission service. As we explain below, we believe that disclosure of this information will foster greater public confidence in the integrity of OASIS systems and improve the ability of such systems to facilitate open access use of transmission systems comparable to that enjoyed by the transmission providers. We also believe that unmasking can be accomplished without compromising the role that power marketers play in electricity markets.

First, the disclosure of source and sink information will provide wholesale transmission customers and others with useful data for the after-the-fact evaluation of the accuracy of transmission providers' OASIS postings of ATC and total transmission capacity (TTC). Second, disclosure will also provide useful information for discerning any patterns of undue discrimination in the rendering of or refusals to provide transmission services and in price discounting by transmission providers. Thus, disclosure should encourage accurate postings and fair treatment leading to better competitive utilization of transmission systems.

While we acknowledge the potential business sensitivity that power marketers attach to source and sink information, we believe that delaying unmasking until the transmission provider updates the transmission reservation posting to show the customer's confirmation should allow the power marketer to finalize its arrangements with the power purchaser and the power seller. Moreover, delaying disclosure will not result in the public at large losing the benefits that disclosure offers to all transmission users, including power marketers, since assessments of the accuracy of posted information and unduly discriminatory activity based on such information will of necessity be conducted on an after-the-fact basis. We caution that our overriding concerns are with the promotion of the overall competitiveness of the electricity markets and with ensuring openness, confidence, and nondiscrimination in the use of interstate transmission facilities.[48]

We thus require that transmission providers unmask the source and sink information that is posted on TRANSSTATUS and other templates at the time when a request status posting is updated by the transmission provider to show that the customer has confirmed, in response to the transmission provider's acceptance of its offer, that it still wants to complete the transaction and purchase transmission service. Accordingly, we order corresponding revisions to be made to the masking requirements of the S&CP Document.[49] However, in recognition of the concerns expressed in this proceeding regarding the potential business sensitivity of source and sink information and the somewhat limited experience the Commission has had with the OASIS, we determine it is appropriate to delay the implementation of these revisions for seven months. This will permit competitive electric markets additional time to develop. Therefore, these revisions are to become effective on January 1, 1999.

Our decision to unmask source and sink information is consistent with

[40] APPA Comments on How Group's June 27 letter at p. 4.

[41] EPSA Comments on How Group's June 27 letter at pp. 5–6.

[42] Flow-based pricing, unlike contract path pricing, may recognize all of the paths that a given transmission transaction utilizes. *See* Order No. 888, FERC Stats. & Regs. at 31,650 n.95.

''[I]n contrast to contract path pricing, flow-based pricing establishes a price based on the costs of the various parallel paths actually used when the power flows. Because flow-based pricing can account for all parallel paths used by the transaction, all transmission owners with facilities on any of the parallel paths could be compensated for the transaction.''

[43] PJM Comments on How Group's June 27 letter at pp. 1–2.

[44] Florida Power Corp Comments on How Group's June 27 letter at pp. 3–4.

[45] APPA Comments on How Group's June 27 letter at p. 5.

[46] The Commission, elsewhere, has previously addressed NERC's tagging requirements. *See, CAPT supra* note 15.

[47] We earlier defined the source and sink information here at issue, *supra* notes 9 and 14.

[48] Our decision to require that certain potentially sensitive business information be disclosed is consistent with judicial directives to focus on the needs of the overall market, instead of on individual competitors within the market. In *Alabama Power Company* v. *Federal Power Commission*, 511 F.2d 383, 390–391, D.C. Cir. (1974), we had refused to amend our rule that required affected utilities to publicly disclose their monthly Form No. 423 reports of fuel purchases. The court considered various arguments to the effect that, on the one hand, ''disclosure of information would lead to bargaining disadvantages in future fuel contract negotiations'' (511 F.2d at 390), and on the other hand, any bargaining disadvantage as a result of disclosure would merely reflect the removal of information imperfections in an otherwise competitive market thereby facilitating efficient allocation of resources. [*Id.*]

Notably, the court found that,

''a sudden improvement in the availability of information may deprive a buyer of an advantage he enjoyed when, under more imperfect dissemination, he exploited a seller's ignorance of the market price. * * * Generally, however, laws and practices to safeguard competition assume that its prime benefits do not depend on secrecy of agreements reached in the market. [*Id.* at 391, n.13.]''

[49] We are revising the operative statement in § 4.3.7.2 of the S&CP Document (Version 1.1) that reads ''[o]ther fields, such as SOURCE and SINK, may be masked to comply with FERC regulations and Primary Provider tariff'' to read as follows:

''Transmission Providers shall make source and sink information available at the time the request status posting is updated to show that a transmission request is confirmed.''

sections 17.2 and 18.2 of the Pro Forma Tariff.[50] These sections provide that a transmission provider, unless otherwise ordered to do so, is obligated to treat confidentially information that is supplied as part of a Completed Application for transmission service pertaining to the location of the generator and the location of load ultimately served. We herein find that the obligation in the Pro Forma Tariff to treat such information confidentially does not contradict the requirement we are establishing in this order to unmask the source and sink information reported on the TRANSSTATUS and other S&CP Document templates at the time when the transmission provider posts on the OASIS that the customer confirms that it wants to complete the transaction. As noted above, *supra* note 50, the Pro Forma Tariff provides that transmission providers are to keep certain information on source and sink confidential at the request of a transmission customer, except in specified circumstances, which include a regulatory order requiring disclosure. In this regulatory order, we make just such an exception. Accordingly, the requirement in this order to disclose certain source and sink information is consistent with the requirements of the Pro Forma Tariff.

C. Proposed Interim Procedures To Achieve On-line Price Negotiation and Disclosure of Discounts in Phase I OASIS Until Phase IA Changes Are Implemented

The How Group's proposed interim procedures contain two separate components. Under the first, transmission service negotiations would be accomplished by allowing a potential transmission customer to make a bid by modifying the offered transmission price in the price field of the TRANSREQUEST template.[51] The transmission provider would then respond to the bid price by using the TRANSSTATUS template to notify the potential customer of whether the bid was accepted or rejected. This modification of the price field would require only a minor change to most OASIS nodes.

The second proposed interim procedure would create a new category (''discounts'') in the MESSAGE template to announce agreed-upon transmission service price discounts. A price discount for a non-standard transmission related service, such as weekly service beginning on a Wednesday at 2:00 p.m., would be reported only in the MESSAGE template.

The How Group requested that the industry be given two months to test these interim modifications to OASIS templates and implement the interim measures. While maintaining that its interim procedures are a somewhat cumbersome method to implement on-line transmission service negotiations, the How Group contends that the interim measures will allow negotiations to proceed on the OASIS while a more satisfactory method is developed.

Comments

CCEM contends that on-line negotiation of transmission prices is not feasible at this time because the Internet-based OASIS cannot currently accommodate the speed at which negotiation should comfortably take place. It argues that the interim on-line negotiation process will be so cumbersome that transmission providers will lose interest in price discounting.[52] CCEM also sees the disclosure of transmission price discounts raising business sensitivity concerns and suggests that real time discount price disclosure is not the only means available to prevent unduly discriminatory treatment of transmission customers. As an alternative, CCEM suggests that transmission service negotiations proceed off-OASIS through a process that would rely on phone or facsimile communication arrangements between transmission providers and potential transmission customers.[53] Under CCEM's proposal, whenever a transmission price discount is agreed upon, the availability of the price discount would be broadcast and disseminated on-line over OASIS (within 12 hours in the case of an affiliated customer and within 15 days in the case of a non-affiliated customer).[54]

Commonwealth Edison argues that transmission service negotiations off-OASIS should continue, based on concerns about whether price negotiations could be conducted successfully through present OASIS nodes under the interim measures, given the many steps, the amount of time involved, and the OASIS capacity needed to handle the increased volume of the related communications.[55]

While supporting electronic negotiation of transmission prices, and noting that the NYPP OASIS node could implement the interim measures now, NYSEG also prefers to wait until a real-time or faster Internet-based OASIS system is developed. NYSEG suggests that, during the interim, transmission negotiations rely on recorded telephone calls with any agreed-upon price discounts posted on the OASIS within thirty minutes of the completion of the negotiations.

PJM notes that no changes will be required to the PJM OASIS to implement the How Group's interim measures. Southern, however, cautions that OASIS systems are still in the early stages of development and that requiring the capability for on-line negotiation of transmission price discounts, at this critical stage, would add further complexity to the design of OASIS nodes that could slow down the transmission reservation process and actually could impede the growth of more robust power trading.[56]

Florida Power Corp agrees that the proposed interim measures could be implemented through modification of existing OASIS templates, but stresses that price negotiations will be very cumbersome and not practical, especially for short-term transactions. It suggests that negotiations be conducted by telephone calls, with the results immediately posted on OASIS.[57]

[50] Section 17.2(iv) of the Pro Forma Tariff (Stats. & Regs., Regulations Preambles at 30,522) reads:

''The location of the generating facility(ies) supplying the capacity and energy and the location of the load ultimately served by the capacity and energy transmitted. The Transmission Provider will treat this information as confidential except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice or pursuant to RTG transmission information sharing requirements. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

Section 18.2(vii) of the Pro Forma Tariff (Stats. & Regs., Regulations Preambles at 30,524) reads in relevant part:

''The Transmission Provider will treat this information in (vi) and (vii) as confidential at the request of the Transmission Customer except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice, or pursuant to RTG transmission information sharing agreements. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.''

[51] We noted in Order No. 889–A, FERC Stats. & Regs. at 30,551 and n.12, that ''negotiation'' would be considered to have taken place only if the transmission provider or transmission customer seeks prices below the ceiling prices set forth in the Order No. 888 Pro Forma Tariff.

[52] CCEM Comments on Interim Measures at pp. 11–12.

[53] CCEM Comments on Interim Measures at p. 11.

[54] *Id.*

[55] Commonwealth Edison Comments on Interim Measures at pp. 4–5.

[56] Southern Comments on Interim Measures at p. 2.

[57] Florida Power Corp Comments on Interim Measures at pp. 4–5.

NRECA asserts that the interim measures will work effectively only if transmission providers respond in a timely manner to transmission customer requests for price discounts. However, it is willing to accept the interim measures even though they constitute a retrofit and would have developed differently if considered in the initial OASIS design stage.[58]

PECO Energy argues that transmission negotiations off-OASIS should continue, since the majority of transmission providers may not be able to successfully implement the software changes necessary for on-line negotiation of transmission prices over OASIS. PECO opposes mandatory interim measures for on-line negotiation until OASIS is greatly improved.[59] However, it believes that price discounts should be disclosed when offered to affiliates and non-affiliates alike, following the completion of the negotiations.

Commission Conclusion

As we stated in Order No. 889–A,[60] the objective of the interim procedures is to implement our Order No. 888–A on-line transmission price negotiation policy as soon as possible through OASIS, so we can improve the competitiveness of the electricity markets while the industry develops a more sophisticated ''Phase IA'' approach. Keeping this in mind, we are adopting the first of the How Group's two proposed interim measures (involving modifications to the price field of the TRANSREQUEST template) because it appears that this interim modification can be easily made. We are not adopting the How Group's second proposal (involving a new ''discounts'' flag in the MESSAGE template) because this revision is more complex and we wish to keep the burden of implementing the interim procedures to a minimum.[61] Under this limited interim procedure, wherein we merely allow the price field to be modified,[62] a potential transmission service customer will be able to request discounts via OASIS, but only on posted transmission service offerings. No commenter has provided persuasive evidence that the How Group's proposal cannot be implemented within the How Group's proposed time frame.

Relying on the How Group's interim proposal, we direct changes to the operative language of the current S&CP Document to allow a potential transmission customer to modify the price field when submitting a request to purchase transmission service using the TRANSREQUEST template.[63] If the customer's bid is approved, the provider will respond by posting the message ''accepted'' in the TRANSSTATUS template. If the customer's bid is not accepted, then the provider will respond by posting the message ''denied.''

We require implementation of this directive by September 11, 1998 so that discounts can be requested on-line without waiting for the industry to implement comprehensive changes in Phase IA OASIS.

We believe the benefits of fostering on-line discounting as soon as possible in this limited fashion outweigh the problems that may result from the use of a somewhat cumbersome process and find this preferable to waiting until OASIS Phase IA improvements can be implemented before implementing on-line discounting. As to any business sensitivity concerns over our decision to make price negotiation visible on OASIS, the time to raise these concerns was in the rehearing of Order No. 889–A and not at this compliance stage.

D. How Group Proposals To Revise the Phase IA S&CP Document Requirements

The How Group's proposed longer term revisions incorporated in a Phase IA S&CP Document (Version 1.2) include both the changes we directed in Order No. 889–A and other changes prompted by the industry's experience with operating OASIS sites.[64] Except as discussed below, we find these modifications to the S&CP Document to be acceptable and direct its revision with minor editorial changes to correct typographic errors, enumeration of sections, and other nonsubstantive changes.[65] Additionally, interested persons filed comments on certain of the proposed revisions to the S&CP Document, which we also address below.

1. Comments on Preconfirmed Reservations

In connection with transmission service negotiations, Section 4.2.10.1(a) of the How Group's proposed Phase IA S&CP Document indicates that OASIS shall set OFFER__PRICE equal to BID__PRICE in the case of

[58] NRECA Comments on Interim Measures at p. 3. Although NRECA argues that ''timely'' responses are needed, it seeks no revisions to the timetables for posting in 18 CFR 37.6. This issue is also raised by PECO in their comments to Phase IA.

[59] PECO Energy Comments on Interim Measures at p. 7.

[60] Order No. 889–A, FERC Stats. & Regs. at 30,551.

[61] We note, however, that in section II.G *infra,* we accept the How Group's proposal to add a negotiation flag in the TRANSSTATUS template to enable customers to search for discounts, as part of the Phase IA S&CP Document revisions.

[62] This modification is more fully explained in note 63, *infra.*

[63] In the interim, until the revised S&CP Document Version 1.2 (*see* Attachment 2) becomes effective, we will modify the operative language of S&CP Document Version 1.1, as proposed in the How Group's June 27, 1997 letter with some minor clarifications, through the addition of the following language to § 4.3.7:

''For on-line price negotiation the customer can modify the price field when submitting a request to purchase transmission service using the TRANSREQUEST template. The provider response in the TRANSSTATUS template will either indicate ''accepted'' if the bid is approved, or ''denied'' if the bid is not accepted. The reason for denial would be shown in the comments field. The TRANSSTATUS template would retain the customer's bid price as a permanent record, whether accepted or not. If the request is denied for price reasons, the customer could repeat the process by submitting a new request with a different price bid. If a discount is given on a posted product, it is also required that the transmission provider change the posted offer price to match the discounted price for the service, for all unconstrained paths to the same point of delivery (POD) and for the same time period.''

This insertion would precede ''a. Customer Capacity Purchase Request'' in § 4.3.7 of the S&CP Document. We are making this change through the issuance of this order and not through the issuance of an updated S&CP Document because it is to be in effect for only a limited time.

[64] Changes directed by the Commission include: (1) provision for on-line interactive negotiation (such as the addition of new data elements for price offered, price bid, ceiling price); (2) provision for linking ancillary services to transmission services; (3) provision for identification of a reservation made by an affiliated merchant; (4) provision for posting personnel transfers; (5) provision for posting incidents in which the provider exercises discretion in the application of tariffs; and (6) removal of all references in the S&CP Document to masking.

Improvements suggested by industry's experience include: (1) automatic notification of customers (dynamic notification) when the status of a reservation request has changed (to speed up the process of negotiating by reducing the customer's need to check an OASIS node repeatedly for the status of a pending request); (2) merging all transmission service offering templates into a single template (to simplify doing business); (3) further standardization of transmission service product names and identification of their attributes; (4) introduction of ''sliding windows of time'' allowing purchases of blocks of service (running 60 minutes, 24 hours, 7 days, or 30 days) on a non-calendar period basis; (5) introduction of ''capacity profiles'' reservations (allowing for a single reservation for monthly service to set different levels of reserved capacity for each day thereof); and (6) a new template for nonfirm secondary service over alternate points of receipt and delivery (provides additional support for secondary transmission service).

[65] In Attachment 3 to this order, we show all the changes that we have made and direct to the How Group's September 23, 1997, submittal in redline and strikeout fonts. In Attachment 2, we provide the revised document without redline and strikeout fonts. Attachments 2 and 3 will be posted on the Commission Issuance Posting System (CIPS) and may be reviewed in the Commission's Public Reference Room during normal business hours. Details about accessing CIPS are given in the supplementary information preceding this order, *supra* at ii.

''preconfirmed'' transmission reservation requests. AEP states that this proposal should satisfy the restriction/requirement that BID__PRICE be equal to OFFER__PRICE for any reservation to be CONFIRMED;[66] however, AEP is concerned that parties to a preconfirmed transaction using the proposal may inappropriately modify or unwittingly accept price information. Thus, it requests that we substitute the following requirement:

Prior to or commensurate with a Seller's setting a preconfirmed reservation request's STATUS to ACCEPTED (and by implication CONFIRMED), the Seller must set OFFER__PRICE equal to the value of the BID__PRICE as established by the Customer on submission of the request.

Commission Conclusion

The Commission adopts AEP's suggestion and proposed wording for the Phase IA S&CP Document. It is more specific and thus less subject to differing interpretations. AEP's proposal clarifies that the setting of the OFFER__PRICE equal to the BID__PRICE occurs only when the Seller accepts the preconfirmed request. We remind transmission providers that our OASIS regulations require that, if discounts are offered, they be offered to all transmission customers.[67]

2. Comments on Linking Ancillary and Transmission Services

The How Group proposes adding § 4.2.12 to conform the S&CP Document to the revisions directed by Order No. 889-A in connection with §§ 37.6(c)(4) and 37.6(e)(1)(iv) of the Commission's OASIS regulations, which require that transmission service offerings and transaction status postings identify the associated ancillary services and ancillary service transaction status.

AEP notes that the Commercial Practices Group white paper recommendation on the handling of ancillary services during Phase IA, *i.e.*, that

basic point-to-point transmission service should be requested before any Ancillary Services to support that basic point-to-point transmission service are requested

was not incorporated in the How Group's proposal. AEP requests

that the Commission adopt a provision that, for OASIS Phase IA, all ancillary service transactions/reservations are subordinate to and in support of a single transmission service reservation.

AEP argues that adoption of this provision would significantly simplify the implementation of the How Group's proposal. AEP contends that, if one considers pre-arrangement for Operating Reserve-Spinning Reserve from a third party ancillary service provider, that service provider will require notification that some or all of that service is supporting one or more transmission reservations made at some point in the future as those reservations are confirmed. As currently there is no proposed mechanism to query OASIS for reservations that reference this pre-arranged ancillary service reservation, AEP questions whether the third-party supplier market for ancillary services is robust enough to warrant the significant investment in programming resources needed to implement the How Group's proposal without such modification.[68]

Southern contends that the How Group's proposal to allow transmission customers to indicate a preferred provider of ancillary services and indicate which services will be purchased in the future, injects confusion into the reservation process by giving transmission customers options inconsistent with the Pro Forma Tariff. It also asserts that the proposal is unnecessary because the existing ''request reference'' or ''deal reference'' fields can be used to link ancillary and transmission services as required by the Commission.[69]

Commission Conclusion

We believe that AEP's suggestion to limit the flexibility inherent in the ancillary services linkage proposal reduces the Phase IA programming necessary to implement the proposal and is a practical suggestion. Nonetheless, while we adopt its suggestion that requests for ancillary service be associated with a single transmission service reservation, we find it unnecessary to completely adopt AEP's recommendation for the Commission to require that basic point-to-point transmission service must be requested *before* any request is made for supporting ancillary services. This would interfere with customers attempting to take advantage of certain optional ancillary service packages transmission providers offer with their transmission service offerings. Therefore, ancillary services may be requested before, concurrently with, or subsequent to, the related request for basic point-to-point transmission service.

We also agree with Southern that it is the Pro Forma Tariff, and not the OASIS regulations, that controls the minimum ancillary services that must be offered by a transmission provider. However, the How Group's Phase IA proposal merely attempts to accommodate the reservation options that transmission customers may have under a particular transmission provider's Pro Forma Tariff. To the extent that Southern has a feasible but simpler approach to handle ancillary service linkage, we encourage it to pursue its idea with the How Group to improve § 4.2.12 of the S&CP Document.

3. Comments on Capacity Profiles

The How Group proposes to introduce, in Phase IA, the concept of capacity profiles for reservations of varying amounts of capacity over a given service period. For example, a single OASIS transaction would cover a weekly reservation that incorporates varying daily reservation levels.

Southern asks for rejection of the capacity profile mechanism, claiming that OASIS, as it is currently configured, permits transmission customers to accomplish the same result through the submissions of multiple requests, each tied to the others through a common deal reference number supplied by the transmission customer and that, in any event, the computer systems of transmission providers are not set up for this process. Southern implies that the capacity profile reservation mechanism is also not feasible because the Pro Forma Tariff does not include provisions that allow transmission customers to make reservations based on capacity profiles.[70]

AEP questions whether transmission customers should be able to negotiate the price of the individual hours of a capacity profile. It claims that the S&CP Document has also defined the templates used to negotiate the transmission price of the individual hours of a capacity profile in an inconsistent and ambiguous manner. AEP, therefore, requests that any reference to pricing information for the individual hours of capacity profiles be removed.[71]

Commission Conclusion

The How Group's Phase IA proposal for implementing capacity profiles in § 4.3.7.1 of the S&CP Document leaves the adoption of the capacity profile transaction process to the option of each transmission provider:

[s]upporting ''profiles'' of service, which request different capacities for different time

[66] AEP Comments on Phase IA at p. 5.

[67] *See* Order No. 889–A, FERC Stats. & Regs. at 30,568.

[68] AEP Comments on Phase IA at pp. 5–7.

[69] Southern Comments on Phase IA at pp. 4–5.

[70] Southern Comments on Phase IA at pp. 5–6.

[71] AEP Comments on Phase IA at pp. 7–8.

periods within a single request, are at the discretion of the Primary Provider.[72]

Accordingly, AEP, Southern, and other transmission providers will be free to decide whether to implement the capacity reservation profiles on their individual OASIS nodes within the parameters of the service offering prescribed by their respective Pro Forma Tariffs. The revisions to the S&CP Document which we adopt today merely provide a consistent method to follow by transmission providers in the event they choose to offer capacity reservation profiles.

4. Comments on Posting of Losses

PECO points out that, while transmission customers must account for losses when making a transmission reservation, it can be a very time consuming process for customers to search through the transmission provider's tariff to determine how losses will be applied on systems where losses vary from path to path.[73] PECO proposes either that the transmission provider's response to a request for transmission service via the ''TRANSOFFERING'' template include loss information or, alternatively, that a table of losses be posted on the OASIS by the transmission provider.

Commission Conclusion

PECO raises a valid concern. While we encourage transmission providers to post a table of losses on their OASIS nodes because such information is useful to transmission customers, we will not require it at this time because we believe that transmission users would be best served if loss information were provided in a standardized template. Therefore, we request that the How Group consider this as part of the OASIS Phase II process.

5. Revisions to Phase IA S&CP Document Recommended by the How Group and the Commercial Practices Group

In their joint comments, the How Group/Commercial Practices Group recommend one change, and several clarifications and minor corrections to the proposed Phase IA S&CP Document. The change pertains to the addition of two data elements requiring the establishment of two new fields (NERC__CURTAILMENT__PRIORITY and OTHER__CURTAILMENT__PRIORITY) to several templates (TRANSOFFER, TRANSSTATUS, LIST, TRANSSERV, SCHEDULE, CURTAIL, TRANSSELL, TRANSPOST), to inform transmission customers about the NERC curtailment priority and other regional curtailment priority assigned to each transmission service offering.[74] These priorities are set by the transmission provider, consistent with the tariff on file with the Commission. The minor changes include enumeration, typographical, sequencing, identification, and format corrections and fixes.[75]

Commission Conclusion

We adopt the new data elements as an option that transmission providers may display because they provide useful information. However, we caution that our adoption of a place on the OASIS for these data elements does not constitute an approval of the NERC or other curtailment priorities.[76] We also adopt the proposed corrective suggestions for Phase IA purposes because they improve and help complete the S&CP Document.

E. Other Proposed Revisions to the S&CP Document

1. Comments on Standardized Naming of Transmission Paths

AEP raises the issue of the need for consistent naming of point-to-point transmission paths among transmission providers' systems. It observes that inconsistent naming of paths among transmission providers has had a significantly negative impact on transmission customers' ability to effectively use OASIS to procure needed transmission services. AEP, therefore, proposes its own naming convention for transmission paths:

Where a point of receipt and/or delivery (data elements POINT__OF__RECEIPT and POINT__OF__DELIVERY) represents a NERC Control Area, the NERC 4 character Control Area acronym shall be used as the name of that point of receipt and/or delivery.

Where a path (dat[a] element PATH__NAME) represents the interconnection between two NERC Control Areas, the PATH__NAME shall be composed of: ''REGION__CODE/ PRIMARY__PROVIDER__CODE/ PATH__CODE//''. REGION__CODE and PRIMARY__PROVIDER__CODE are as defined in the Data Element Dictionary. PATH—CODE shall be composed of the POINT__OF__RECEIPT followed by the hyphen (-) character and POINT__OF__DELIVERY, where POINT__OF__RECEIPT and POINT__OF__DELIVERY are the associated NERC 4 character Control Area acronyms. OPTIONAL__CODE and SPARE__CODE are null.[77]

Commission Conclusion

We agree with AEP that a consistent naming convention of paths will greatly improve the usefulness of Phase IA OASIS. However, in this instance, we are reluctant to impose a change in a business practice without giving the industry the opportunity to consider other possibilities and reach a consensus on the best solution. Since the Commercial Practices Group has been formed to develop business practice standards for OASIS, we request that the Commercial Practices Group propose a consistent naming convention for transmission paths by August 31, 1998.

2. Comments on Reservation Templates

AEP notes that the cumbersome process that transmission customers must follow in making arrangements for transmission service on OASIS is made more cumbersome by those transmission providers that require submission of reservation requests to enter and exit their systems for ''passthrough'' or ''wheeling'' type transactions.[78] AEP suggests that a single reservation request should be sufficient to cover both entering and existing the transmission system for such service. AEP asks that we modify the S&CP Document (or the OASIS regulations) to the extent necessary to enable transmission customers to rely on a single reservation transaction for wheeling across a transmission system regardless of whether the particular path is posted.

Commission Conclusion

AEP is correct that our rules currently do not require postings in a manner that a allow a single reservation transaction for wheeling across a transmission system, without a specific advance

[72] August 12, 1997 How Group Letter at p. 48.

[73] PECO Comments on Phase IA at p. 2.

[74] While these data elements would inform customers of the curtailment priorities of NERC and various regional entities, curtailment priorities for transmission providers that are public utilities are governed by the applicable Pro Forma Tariff unless the Commission approves a transmission provider's proposal to revise its Pro Forma Tariff based on a showing that its revised curtailment priorities are consistent with or superior to the Pro Forma Tariff. *See CAPT, supra* note 14. Absent such an approved tariff revision, to the extent that a conflict exists between the curtailment priorities of NERC or another entity and the applicable Pro Forma Tariff, the Pro Forma Tariff shall govern.

[75] How Group/Commercial Practices Group Comments on Phase IA at pp. 1–2.

[76] As we advised in *CAPT supra* note 14:

[t]he Commission further encourages the industry to examine reliability aspects of the Pro Forma Tariff when additional detail may be required to implement specific reservation, scheduling, and curtailment procedures and to propose generic improvements to the Pro Forma Tariff.

Such proposed detail cannot be considered approved by the Commission by virtue of our approving its display on the OASIS.

[77] AEP Comments on Phase IA at p. 2.

[78] AEP Comments on Phase IA at pp. 2–3.

request from a customer that a particular path be posted that way. We are reluctant to direct such a change at this time because it would require a redesign of OASIS. However, the current system has sufficient flexibility to deal with this problem on a case-by-case basis without the need for the Commission to modify its rules. The OASIS regulations at § 37.6(b)(1)(i) currently require that transmission providers post information pertaining to any path requested by a transmission customer, and transmission providers are free to post additional paths of commercial interest.[79] Thus, if a customer intends to do business across a system, it can make a request that the transmission provider post the path as an ''in and out'' path so that a single reservation can cover transmission passing through the transmission provider's system.[80]

We encourage AEP to pursue its idea with the How Group, and to consider, together with the How Group, what system redesign its proposal would necessitate, and whether this would be feasible and cost justified.

3. Comments on Dynamic Notification of Secondary Market Providers

Phase I OASIS nodes do not actively notify a potential transmission customer of information changes such as the current ATC for a given path or the status of a pending service request. The OASIS systems are passive, presenting information that is current only at the time when a particular OASIS node is queried by the customer. To determine if more current information is posted, the customer cannot simply ''stay tuned'' to the site but must continually re-query it. In Order No. 889–A, we noted the passive nature of Phase I OASIS systems and requested that the How Group consider adding more active, dynamic capabilities to OASIS in Phase II.

In its Phase IA submittal, the How Group proposes to add some dynamic capability to facilitate on-line transmission service negotiations prior to Phase II, which we are adopting in this order.[81] It proposes that OASIS nodes automatically notify a customer when the status of a reservation request has changed, from ''pending'' to either ''accepted'' or ''denied.'' This would reduce the number of steps involved in closing a transmission service deal and reduce the incidence of unnecessary polling of OASIS nodes for status checks.[82]

AEP notes that a potential competitive problem exists on OASIS that could be resolved by modifying and extending the How Group's Phase IA dynamic notification proposal. AEP points out that a host transmission provider can gain an advantage by programing its own OASIS computer system to automatically notify it about any customer requests for transmission service while the host's competitors (*e.g.*, resellers of capacity on its transmission system (secondary sellers) and sellers of ancillary services to be used in conjunction with capacity on its transmission system) would be forced to query the host's OASIS node repeatedly to learn of any requests for the types of services they offer.[83]

AEP believes that extending dynamic notification to secondary market providers and ancillary service providers would resolve this competitive problem. It requests that a requirement for such additional dynamic notification be added to the Phase IA S&CP Document.[84]

Commission Conclusion

We agree with AEP that its proposed extension of the dynamic notification proposal would eliminate a potential competitive problem. Therefore, we adopt AEP's modified dynamic notification proposal and accordingly modify § 4.2.8.2—Company Information and § 4.2.10.3—Dynamic Notification, of the S&CP Document to permit secondary market and ancillary services providers who wish to be automatically notified, to identify themselves by merely registering with the transmission provider.[85] However, for purposes of Phase IA, this extension of dynamic notification is required only where the transmission provider has programmed its computer system for its own notification. During Phase II, the OASIS nodes of all transmission providers will be required to have this capability.

4. Comments on Reservation Time Limits

PECO requests the establishment of predetermined deadlines applicable to all OASIS nodes, by which acceptances by transmission providers of transmission service requests and confirmation by transmission customers pertaining to their requests must be made.[86] It contends that predetermined time limits will enable all parties to be aware of pertinent deadlines. On this matter, NRECA similarly points out, as it did for the proposed interim measures, that the proposed Phase IA transmission price discount procedures will work only if transmission providers respond to requests for transmission price discounts in a timely manner.[87]

Commission Conclusion

We note that the Pro Forma Tariff sets the deadlines applicable to transmission providers and we are not in this order modifying those deadlines.[88] Also, in Order No. 889–A, the matter of deadlines applicable to transmission customers was reserved for resolution in Phase II due to our reluctance to specify confirmation time limits without first soliciting the views of representative industry segments. PECO and NRECA, however, make a compelling argument that consistent confirmation deadlines among OASIS nodes are needed before

[79] 18 CFR 37.6(b)(1)(i).

[80] Such an approach requires foresight by the customer (or by the transmission provider). If the customer has not made a request in advance that the path at issue be posted, then it would not be posted in time to accommodate the transaction (unless posted at the request of another customer).

[81] *See* supra note 64.

[82] How Group's August 12, 1997, letter at Attachment 1.

[83] Order No. 889, FERC Stats. & Regs. at 31,621–22, requires transmission providers to post resales of capacity from their transmission systems, on their OASIS nodes. To prevent transmission providers from gaining a competitive advantage over resellers, transmission providers must post such information on the same display page using the same tables used for their own offerings. Transmission providers must also provide postings of offers to sell ancillary services on the same page and in the same format that they use for their own offerings.

[84] AEP Comments on Phase IA at pp. 3–4. Specifically, AEP proposes:

''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 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 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.''

[85] We note that AEP's proposed procedure parallels the registration procedure proposed by the How Group for Phase IA dynamic notification of transmission customers.

[86] PECO notes that the Commission has approved at least one tariff (Wisconsin Electric Power Company, 80 FERC ¶ 61,299 (1997), *reh'g denied* (unpublished order dated November 13, 1997)) that permits the transmission provider to set deadlines by which customers must confirm reservations.

[87] PECO Comments on Phase IA at p. 3.

[88] *See* Order No. 888–A, FERC Stats. & Regs. ¶ 31,048 at 30,523–24. Section 17.4 of the Pro Forma Tariff gives the deadlines for a notice of a deficient application, section 17.5 of the Pro Forma Tariff gives the deadline for a response to a competed application, and section 18.4 of the Pro Forma Tariff gives the deadline for a determination of available capability.

Phase II. In addition, the Commercial Practices Group is now available to review this matter and give us its recommendations on how we should proceed. We, therefore, request that the Commercial Practices Group examine the development of proposed Phase IA deadlines and make recommendations to us on this issue by August 31, 1998.

F. Data Elements in the Templates Are To Be Fixed in Sequence and Number, and Are Not To Differ Among OASIS Nodes

The How Group asks us to reconsider our Order No. 889–A clarification that data elements in OASIS templates must be fixed in sequence and number, and are not to differ from OASIS node to OASIS node. The How Group contends that this does not permit the introduction of new fields to existing templates and it stifles OASIS innovation by transmission providers.

Commission Conclusion

The Commission continues to believe that permitting transmission providers to reorder and add their own information to OASIS templates defeats the purpose of standardizing electronic communication across all OASIS nodes. Standardization of electronic communication across all OASIS nodes is the underlying principle that permits efficient movement of power across the grid by making it easier for customers to locate information in a timely manner across various OASIS nodes. As we have stated before, when the industry proposes modifications to the standards, we will continue to order revisions to the S&CP Document, thus implementing across-the-board changes to the templates for all OASIS nodes, as necessary.[89] Moreover, even though we will continue to be responsive to requests to revise the S&CP Document as warranted, the proper forum for challenging issues first decided in Order No. 889–A (such as this one) would have been in a timely request for rehearing of Order No. 889–A.

G. The Meaning of Disclosure of a Discount Given to a Particular Customer

The How Group asks the Commission to clarify the definition of what constitutes a transmission price ''discount.'' The How Group's June 27, 1997 letter states that it understands the Commission's definition to be any price below the tariff or ceiling price. The August 12, 1997 How Group letter requests clarification that, for the purpose of requiring disclosure of any transmission price discount given to a particular customer, the transmission price discount should be defined as any negotiated price different from the offer price that has been posted on the OASIS. The How Group proposes to identify transmission price discounts in two ways: (1) discounts from the ceiling price and (2) discounts stemming from negotiations regardless of whether the initial offer was the ceiling price. All discounts would be identified by posting the discounted price next to the ceiling price in the offering templates posted by the transmission provider. Negotiated discounts would be identified by a negotiation ''flag'' in the TRANSSTATUS template.[90] The negotiation ''flag'' would enable searches for discounts given to particular customers for specific transmission services, including searches by path, points of receipt and delivery, etc.[91]

Commission Conclusion

We agree with the How Group that, pursuant to our Order No. 888–A policy, a transmission price discount is present whenever a transmission price below the tariff or ceiling price is offered or negotiated by a transmission provider. The proposed use of a negotiation flag, in addition to the ceiling price and offer and bid price in the TRANSSTATUS template, meets our requirement to disclose transmission price discounts, identifying both a negotiated transmission price discount as well as an initial transmission offer price positioned below the ceiling price. We incorporate the How Group's proposal in the revised Phase IA S&CP Document.

H. Date of Implementation for Phase IA Changes

The How Group proposes an implementation date for its proposed Phase IA changes starting six months after approval by the Commission. This schedule would provide four months for development and beta testing and two months for training and full scale testing.

Commission Conclusion

We agree with the How Group that the six-month implementation schedule is reasonable. Accordingly, we will direct that the Phase IA changes must be implemented on December 1, 1998.

I. Impact of Phase IA Implementation

Southern posits that the overall goal of Phase I should be to ensure a reliable core set of transmission service information in a format that is easy to access and simple to use and that Phase IA will represent progress only if it has the effect of making OASIS workable for the majority of market participants.[92] Therefore, the resources of transmission providers and customers should be concentrated on making day-to-day OASIS operations more effective, before adding new features to OASIS.[93] Southern contends that the benefits of Phase IA are not worth the risk of market disruption that is sure to be caused by implementing an interim and substantially new OASIS. Repeating the point it made with respect to the proposed interim measures, Southern argues that Phase IA on-line negotiations may add complexity and will impede rather than accelerate robust trading of power because it will burden OASIS without increasing throughput. It adds that linking ancillary services to transmission services further increases the data entry requirements of the transmission provider and further increases the data that must be transferred between the provider and customer.

Commission Conclusion

As noted, Southern repeats its contention that interim measures for on-line negotiations may add complexity and impede rather than accelerate robust trading of power because it will increase the burden of using OASIS without increasing its throughput. Nonetheless, the policies that led to the changes at issue here were adopted by the Commission in Order No. 889–A after a full review on rehearing of Order No. 889. The proper forum to challenge the Commission's findings in Order No. 889–A would have been in a timely request for rehearing of that order. At this juncture, we are not persuaded to revise our policies concerning on-line negotiations and ancillary services.

J. Uniform Formats for Organizational Charts and Job Descriptions

In *American Electric Power Services Corp.*, 81 FERC ¶ 61,332 at 62,512 (1997), *order on reh'g and clarification*, 82 FERC ¶ 61,131 at 61,470–71 (1998), the Commission required transmission providers to post organizational charts and job descriptions on their OASIS

[89] Order No. 889–A, FERC Stats. & Regs. at 30,574.

[90] The ''flag'' would identify whether the negotiated transmission service price is higher or lower than a transmission provider's offering price. A negotiated price may be higher than the offering price (not to exceed the ceiling price), for example, as the result of an auction on a constrained interface.

[91] How Group Phase II Report at p. 16.

[92] Southern Comments on Phase IA at pp. 1–6.

[93] Southern Comments on Phase IA at p. 2.

nodes. Currently, transmission providers use many different software programs to create and post organizational charts and job descriptions including, but not limited to, Adobe Systems Incorporated's portable document format (''PDF''), Microsoft Corporation's ''Word'', and hypertext marked language (''HTML'').

Because the transmission providers do not provide the organizational charts and/or job descriptions in standardized formats, industry participants have difficulty viewing and downloading the information. To rectify this problem, we encourage the industry to reach consensus on an industry-wide uniform format, which could be easily obtained and widely used by industry participants, to cover both organizational charts and job descriptions, or at a minimum, one uniform format for organizational charts and another uniform format for job descriptions. To this end, we request that the How Group, within 90 days of the date of issuance of this order, develop an industry-wide uniform format for organizational charts and job descriptions, and submit its recommendations on this issue to the Commission.

III. Effective Date and Congressional Notification

Version 1.1 of the S&CP Document, as modified herein, will take effect 60 days from the publication of this order in the **Federal Register**. Version 1.2 of the S&CP Document, as modified herein, will take effect on December 1, 1998. The revisions to § 4.3.7.b of Version 1.2 of the S&CP Document, pertaining to the masking of source and sink information, will take effect on January 1, 1999.

The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of the Office of Management and Budget, that this Rule is not a ''major rule'' within the meaning of section 351 of the Small Business Regulatory Enforcement Act of 1996.[94] The Commission will submit the rule to both houses of Congress and the Comptroller General prior to its publication in the **Federal Register**.

The Commission orders:

(A) The current S&CP Document (Version 1.1) is hereby modified, as discussed in the body of this order, to incorporate the interim procedures on price negotiation. This directive is to become effective 60 days from the date of publication of this order in the **Federal Register**. The S&CP Document (Version 1.1), as modified herein, will be superseded by the revised S&CP Document (Version 1.2), as shown on Attachment 2 to this order, upon the effective date of the revised S&CP Document (Version 1.2) ordered below in Ordering Paragraph (B).

(B) The revised S&CP Document (Version 1.2), as shown on Attachment 2 to this order, is hereby adopted for use by Transmission Providers, to become effective on December 1, 1998, as discussed in the body of this order.

(C) The revised S&CP Document (Version 1.2) is hereby modified, as discussed in the body of this order, to revise references in § 4.3.7.b pertaining to the masking of source and sink information, to become effective on January 1, 1999.

By the Commission. Commissioner Bailey dissented in part with a separate statement attached. Commissioner Hébert concurred.

David P. Boergers,

Acting Secretary.

BILLING CODE 6717–01–P

Open Access Same-Time Information System and Standards of Conduct

[Docket No. RM95–9–003]

Issued June 18, 1998.

BAILEY, Commissioner, *dissenting in part*

I respectfully dissent from the decision to require the unmasking of source and sink information and the posting of such information, for public inspection, on a transmission provider's open access same-time information system (OASIS).

In my judgment, this case presents a difficult balancing issue. Specifically, it raises the issue of whether the public divulgence of (what certain commenters characterize as) commercially and competitively sensitive information is out-weighed by the public's and the Commission's need for such information for the purpose of detecting possible undue discrimination or preference in the provision of transmission service.

This issue—the balance between protecting commercially sensitive business information and requiring its disclosure for the purpose of monitoring and enforcement—is a recurring one. I have previously discussed the issue in the context of separation of functions requirements applicable to transmission providers[1] and reporting and filing requirements applicable to power suppliers with market-based rate authority.[2]

I view this issue as particularly important as wholesale power markets initiate and continue their development to competitive markets. From a regulator's perspective, it presents a difficult quandary. Should we require the divulgence of additional information to promote our monitoring of the competitive market, when we suspect or are informed that divulgence of such information would act to hinder operation of the very competitive market we are attempting to foster?

Here, the information at issue is what the order characterizes as ''source and sink'' information. Source and sink information helps to define the transmission service. Specifically, it identifies the location of the generation resource and the location of the load to be served.

This is very important information to the extent it allows the transmission provider to assess the demands a request for transmission service will place on its transmission system. I want to be clear that I have absolutely no problem with the divulgence of source and sink information, and any other related information, to the transmission provider and any other entities, for the purpose of promoting the reliability of the system and implementing appropriate line loading relief procedures.

[94] 5 U.S.C. 804(2).

[1] *See* American Electric Power Service Corporation, *et al.*, 81 FERC ¶ 61,332 (1997), *order on reh'g*, 82 FERC ¶ 61,131 (1998), *reh'g pending.*

[2] *See* AES Huntington Beach, *et al.*, L.L.C., 83 FERC ¶ 61,100 (1998).

The question here, however, is very different—whether such information should be made publicly available, by postings on the OASIS, to the public and to the Commission.

Here, we see different viewpoints on the subject. We are informed that transmission providers are, for the most part, indifferent on the subject and simply want to be apprised of their OASIS posting obligations in the aftermath of Order No. 889–A, which required the on-line posting and negotiation of transmission discounts and the unmasking of party names. (The OASIS ''How'' Working Group, a representative industry coalition that periodically makes recommendations as to proposed improvements in OASIS procedures and protocols, takes no position on the subject and simply seeks Commission ''clarification'' as to whether the unmasking of names also requires the unmasking of source and sink information.)

Transmission customers, on the other hand, offer strong opinion on the subject. Power marketers and power producers articulate strong opposition to the OASIS posting of source and sink information. They believe that this information is commercially and competitively sensitive, and that the public divulgence of the information will stifle the development of competitive markets (particularly markets for short-term energy transactions) and seriously impair their ability to act as market intermediaries identifying and matching sellers and purchasers.

Transmission customers without generation for sale offer a different judgment. They believe that the disclosure of source and sink information, identifying generation and load, will promote transparency of utility operations and better enable customers and the Commission to detect undue discrimination.

Today's order strikes a balance in favor of disclosure. It finds that the information is necessary to better enable customers and the Commission to detect and remedy undue discrimination and preference in the provision of open access transmission service. It also finds that disclosure is helpful in promoting the accuracy of the numbers—available transmission capacity (ACT) and total transmission capacity (TTC)—that transmission providers must post on the OASIS.

The order also helps to protect the commercial and competitive sensitivity of source and sink information by delaying the posting of such information until the time a transmission customer has confirmed that it wishes to finalize the transaction. In this manner, other transmission providers will not be able to swoop in and pirate off pending transactions, through the use of source and sink information, while they are still in the process of negotiation. In addition, the order delays until January 1, 1999 the date by which transmission providers must begin to post on the OASIS the source and sink information provided by transmission customers.

I find this delay in the public posting of source and sink information to be helpful in mitigating the commercial and competitive consequences of disclosure. Nevertheless, even with the delay in posting, I remain of the opinion that the balance tips in favor of protecting commercially and competitively sensitive information against public disclosure. I base this judgment on several considerations.

First, I remain unconvinced whether the unmasking of this information is necessary or represents the best, or even an appropriate, method of improving our ability to detect undue discrimination or promote the validity of OASIS postings. The Electric Power Supply Association, for example, in its comments refers to using source and sink information for enforcement purposes as ''akin to going after a bug with a cannon instead of a fly swatter.'' I wonder whether there are more narrowly-tailored solutions, such as upgrading the data retention or auditing procedures of Order No. 889.

Second, I am struck by the fact that a large segment of the transmission customer community—power marketers and suppliers—which has an obvious interest in promoting competitive markets and utility compliance with our open access and OASIS initiatives actually opposes this initiative. To the extent we act to improve our enforcement mechanisms to the benefit of transmission customers, I would hope to see greater unanimity of support among such purported beneficiaries. In this regard, the commenters which oppose the unmasking of source and sink information are among those attendees at our July, 1997 technical conference on OASIS implementation which expressed great concern for the validity and usefulness of OASIS postings and procedures and urged a number of proposed improvements. However, unmasking of source and sink information was not one of the improvements advanced for our consideration.

Third, as today's order recognizes, the Commission itself recently reaffirmed—as recently as March 1997 in Order No. 888–A—the commercial and competitive sensitivity of source and sink information by providing in the *pro forma* transmission tariff that such information would remain confidential, except in certain limited circumstances. What circumstances have transpired in the last year as to defeat the presumption of confidentiality and to compel a reversal and the disclosure of such information at this time?

Fourth, we have incomplete information upon which to take the significant step of changing our mind and now unmasking information concerning the location of generation and load. The Commission is advancing an order on a variation of that which was set for notice and comment last summer. We have not elicited comments on whether delaying the posting of this information until the time of transaction finalization, or delaying the effectiveness of revisions to the OASIS Standards and Communications Protocols Document for seven months (until January 1, 1999), is sufficient to mitigate the competitive concerns of the commenters. The Coalition for a Competitive Market (CCEM) suggests, as an alternative, that the Commission could balance its concerns by further delaying disclosure of source and sink information for 30 days after a request for service is accepted, denied or withdrawn.

I am basing my decision on the pleadings as compiled in this proceeding. Upon the submission of further comment (such as in petitions for rehearing) as to the balancing of interests between protecting commercially and competitively sensitive information and using such information to promote enforcement and monitoring of markets, I could be persuaded to adopt a different balance.

At this time, however, I believe that the Commission's very important interest in monitoring markets and protecting against the abuse of monopoly power by transmission providers does not outweigh the Commission's interest in protecting this type of commercially and competitively sensitive information and, thereby, promoting a vigorous and thriving wholesale power market.

For all of these reasons, I dissent from the decision to require the unmasking of source and sink information and to adopt revised procedures in the OASIS Standards and Communications Protocols Document to reflect this unmasking of information. I concur in all other respects with the findings of the order.

Vicky A. Bailey,
Commissioner.

Note: This attachment will not appear in the Code of Federal Regulations.

Attachment 2—Standards and Communication Protocols for Open Access Same-Time Information System (OASIS)

Version 1.2

May 27, 1998

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Appendix A—Data Element Dictionary

ATTACHMENT 1.—ABBREVIATIONS OF NAMES USED IN ORDER

Entity name	Abbreviation
Alabama Power Company	(Alabama Power)
American Electric Power	(AEP)
American Public Power Association	(APPA)
Central Illinois Lighting Company	(CILCO)
Coalition for a Competitive Electric Market	(CCEM)
Commercial Practices Working Group	(Commercial Practices Group)
Commonwealth Edison Company	(Commonwealth Edison)
Continental Power Exchange	(CPEX)
Electric Clearinghouse, Inc	(Electric Clearinghouse)

ATTACHMENT 1.—ABBREVIATIONS OF NAMES USED IN ORDER—Continued

Entity name	Abbreviation
Electric Power Research Institute	(EPRI)
Electric Power Suppliers Association	(EPSA)
Florida Power Corporation	(Florida Power Corp)
Georgia Power Company	(Georgia Power)
Gulf Power Company	(Gulf Power)
Mississippi Power Company	(Mississippi Power)
OASIS How Working Group (EPRI)	(How Group)
National Rural Electric Cooperative Association	(NRECA)
New York Power Pool	(NYPP)
New York State Electric & Gas Corp	(NYSEG)
North American Electric Reliability Council	(NERC)
Pennsylvania—New Jersey—Maryland Power Pool	(PJM)
PECO Energy Company—Power Team	(PECO)
PECO Energy Company—Power Team and Vitol Gas & Electric, Ltd	(PECO Energy)
Savannah Electric and Power Company	(Savannah)
Southern Company Services, Inc.	(Southern)

1. Introduction

1.1 Definition of Terms

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

a. *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.

b. *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.

c. *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.

d. *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. (This is the same term as is used in Part 35.3).

e. *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. (This is the same term as is used in Part 35.3).

f. *Secondary Transmission Provider (ST, Reseller, or Secondary Provider)* is any Customer who offers to sell transmission capacity it has purchased. (This is the same as Reseller in Part 37).

g. *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 of Part 37. (This is the same as Responsible Party in Part 37).

h. *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.

2. Network Architecture Requirements

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 which 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 Standards of Conduct in Part 37.

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.

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 4.

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 Networks: 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 communications 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).

2.3 Communications Standards Required

a. 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) (reference RFC 1055) shall be supported for private internet network dial-up connections.

c. 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), Version 1.0 (RFC 1945), shall be supported by User's web browsers so they 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.

2.4 Internet Tool Requirements

Support 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. Hypertext Markup Language (HTML), at least Version 3.2 shall be used by supported by User's browsers as a standards tool for viewing information.

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

c. 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) 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 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).

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.

3. Information Access Requirements

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 loged out any time they are disconnected. Users may logout voluntarily.

3.2 Service Level Agreements

Service Level Agreements: It is recognized that Users will have different requirements for frequency of access, performance, et., 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.

3.3 Access to Information

a. Display: TSIPs shall format all TS Information on 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.

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 (such as fetch__http) 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.

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. 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, an HTML web page, linked to the 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 non-TS Information such as Want-Ads, may be posted by Providers and Customers, 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.

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.

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 which 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 request is processed by the Seller of the service, possibly off-line from the OASIS Node, and the status is updated accordingly.

If a purchase request is approved by the Seller, then it must be again confirmed by the Customer. 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.

4. Interface Requirements

4.1 Information Model Concepts

a. ASCII-Bases OASIS Templates: For providing information to Users, TSIPs shall use the specified OASIS Templates. These Templates define the information which 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 Appendix A.

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 which contain the Query Variable information, including the name of the OASIS Template. These headers thus determine the contents and the format of the data 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.

4.2 OASIS Node Conventions and Structures

4.2.1 OASIS Node Naming Requirements

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

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.

4.2.1.2 OASIS Node and Primary Provider Home Directory

The home directory name on an OASIS Node shall be ''OASIS'' 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)

Where:

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

(PRIMARY__PROVIDER__CODE 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.

4.2.1.3 CGI Script Names

Common Gateway Interface (CGI) scripts shall be located in the directory ''data'' as follows:

http://(OASIS Node name)/OASIS/(PRIMARY__PROVIDER__CODE)/data/(cgi script name)?(query variables)

Where:

(cgi script name) is the OASIS Template name (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

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.html 1 datadict.txt)

Where:

datadic.html is the HTML version of the data element dictionary
datadic.txt is the ASCII text version of the data element dictionary

The Data Element Dictionary is defined in Appendix A.

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 which 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.

4.2.3 OASIS Template Constructs

4.2.3.1 Template Construction

Section 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, 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. 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 which can be downloaded electronically. In order to meet the ''User-Friendly'' goal and permit the flexibility of the OASIS to expand to meet new requirements, the OASIS Templates shall be as self-descriptive as possible.

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 OASIS. Each query/response Template accepts a set of user specified Query Variables and returns the appropriate information from data posted on OASIS 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 OASIS. The required input information and information to be returned in response are identified by Data Element in Section 4.3, Template Descriptions.

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 OASIS:

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 Date 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 OASIS implemented HTML screens 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.

4.2.4 Query/Response Template Requirements

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

4.2.4.1 Query Requirements

Query information is transferred to OASIS using the HTML protocol as a string of Query Variables in the form of name/value pairs. Query Variable name/value pairs are specified as a collection 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 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 should be the choice of most causal 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 HTML 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 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 HTML protocol.

c. POST Method: The HTML 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 OASIS suing the ''Content-length:'' HTML header to define the length in bytes of the encoded query string and the ''Content-type: application/x-www-form-urlencoded'' HTML 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 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 HTML 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.

4.2.4.2 Response Requirements

In response to a validly formatted Query for each Query/Response OASIS Template, the OASIS 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 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 HTML response message. The ''Content-length:'' HTML header shall define the length in bytes of the response, and the ''Content-type: text/x-oasis-csv'' HTML header shall be used to identify the data type included in the message body (see CSV File Format).

4.2.5 Input/Response Template Requirements

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

4.2.5.1 Input Requirements

Input information is transferred to OASIS using the HTTP protocol as either a string of Query Variable 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 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 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 OASIS 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 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.

4.2.5.2 Response to Input

In response to a validly formatted Input for each Input/Response OASIS Template, the OASIS shall return an indication as to the success/failure of the requested action. The OASIS 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 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: Coma 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/x-oasis-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.

4.2.6 Query Variables

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 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 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.

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 description in Section 4.3.

All standard header Query Variables with appropriate values must be entered by the User.

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).

4.2.6.4 Multiple Instances

Certain Query Variables may be repeated in a given Query/Response OASIS Template query string. Where such multiple instances are documented in the Template definitions using an asterix (*) after the query variable. When more than one instance of the query Variable is specified in the query string, OASIS 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 asterix (*).

4.2.6.5 Logical Operations

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

4.2.6.6 Handling of Time Data Elements

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 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''.

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 to return to the User all requested information whose associated data element time value falls within the specified time interval.

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 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__TIME970201000000ES'' 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 (20 started on or after Jan. 1 but before Feb. 1

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.

All Time values shall be checked upon input to ensure their validity with respect to date, time, time zone, and daylight savings time.

4.2.6.6 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.

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.

4.2.7 CSV Format

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 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.

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-nn.n¬
TEMPLATE=aaaaaaaaaa¬
OUTPUT__FORMAT=[DATA]¬
PRIMARY__PROVIDER__CODE=aaaa¬
PRIMARY__PROVIDER__DUNS=nnnnnnnnn¬
RETURN__TZ=aa¬

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 Elements 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.

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 shall respond with the following standard response header records for all OASIS Templates:

REQUEST__STATUS=nnn¬
ERROR__MESSAGE=aaa...¬
TIME__STAMP=yyyymmddhhmmsstz¬
VERSION=nn.n¬
TEMPLATE=aaaaaaaaaa¬
OUTPUT__FORMAT=DATE¬
PRIMARY__PROVIDER__CODE=aaaa¬
PRIMARY__PROVIDER__DUNS=nnnnnnnnn¬
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 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.

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 the 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 COLUM__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 Element: 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.

a. Null Data Elements: Null Data Elements shall be represented by two consecutive commas (,,) corresponding to the leading and trailing (if appropriate) Data Element commas separators. Null text strings may optionally be represented by two consecutive double quote characters within the leading and trailing comma separators (i.e., ...,'',...).

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 a ''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. Any values corresponding to COLUMN__HEADERS other than those explicitly allowed for a particular Template shall be ignored. However commas must be included to properly align the fields.

4.2.7.6 Error Handling in CSV-Formatted Responses

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.

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 section 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 REQUESTS__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.

The OASIS node shall validate all Input records before returning a Response to the User. All valid records shall be processed by the node, 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 which 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.

4.2.8 Registration Information

4.2.8.1 General

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

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 STATUS 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 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.

4.2.8.3 User Information

With the exception of ''read-only'' (visitor) access. OASIS nodes shall as 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 additional User identification/registration information is maintained by the OASIS, 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.

4.2.9 Representation of Time

4.2.9.1 General

It is critical that all Users of OASIS have a clear and unambiguous representation of time associated with all information transferred to/from OASIS. For this reason, all Data Elements associated with time in OASIS 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 for the representation of time on User entries (Query and Input) and output (Response) Templates.

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 shall accept and apply a fixed hour offset form 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 shall verify that daylight savings time is in effect of the date/time specified.

If daylight savings time (as specified by the time from 2:00 am on the first 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 for conversion to all other time zones. The input of start/stop times fro 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.

4.2.9.3 Output (Response) Time

The OASIS shall return a 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 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 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.

4.2.10 Transaction Process

4.2.10.1 Purchase Transactions

Customers shall purchase services from the Seller using the following steps (see Exhibit 4–1);

a. The Templates (transrequest and ancrequest) shall be used by a Customer to enter a request for specific transmission services from a specific Seller. The Customer may enter a BID__PRICE which is different from the OFFER__PRICE in order to try to negotiate a lower price. The OASIS sets the initial STATUS of the request to QUEUED. The Customer may set the STATUS__NOTIFICATION to indicate that the OASIS must notify the Customer on any change of STATUS of transstatus (see Dynamic Notification). Prior to or commensurate with a Seller's setting of a preconfirmed reservation request's STATUS to ACCEPTED (and by implication CONFIRMED), the Seller must set OFFER__PRICE equal to the value of BID__PRICE as established by the Customer on submission of the request.

b. The Templates (transstatus and ancstatus) shall be used by Customers and Sellers to monitor the status of their transactions in progress. These Templates shall also be used by any Users to review the status of any transactions. The NEGOTIATED__PRICE__ZFLAG data element is set when the Seller agrees to a BID__PRICE (by setting OFFER__PRICE equal to BID__PRICE that is different from the previously posted price. It will show ''higher'' when OFFER__PRICE is higher than the posted price, and ''lower''when the OFFER__PRICE is lower than the posted price.

c. The Templates (transsell and ancsell) shall be used by both to set a new value into STATUS and to negotiate a price by entering a new OFFER__PRICE which is different from the BID__PRICE entered by the Customer in the transrequest Template (if it was not PRECONFIRMED). During these negotiations, a Reseller shall formally indicate the approval or disapproval of a transaction and indicate which rights from prior confirmed reservations are to be reassigned. A Primary Provider may, but it not required, to enter transaction approval or disapproval using this Template. The valid STATUS values which may be set by a Seller are: RECEIVED, STUDY, OFFER, ACCEPTED, REFUSED, DISPLACED, ANNULLED, or RETRACTED.

d. The Customer shall use the transstatus and ancstatus Templates to view the Seller's new offer price and/or approval/disapproval decision.

e. After receiving notification of the transaction's STATUS being set to ''OFFER'' by the Seller the Templates (transcust and anccust) shall be used by the Customer to modify the BID__PRICE and set the STATUS to REBID. After negotiations are complete (STATUS set to ''ACCEPTED'' by the Seller), the Customer shall formally enter the confirmation or withdrawal of the offer to purchase services for the OFFER__PRICE shown in the transstatus Template. The valid STATUS values which a Customer may set are: REBID, CONFIRMED, or WITHDRAWN.

f. The Seller shall use the transstatus (ancstatus) Template to view the Customer's new bid price and/or confirmation/withdrawal decision, again responding through transsell or ancsell if necessary. If the Seller offers to sell a service at an OFFER__PRICE less than the posted in the transoffering (ancoffering) Template, the transoffering (ancoffering) Template must be updated to reflect the new OFFER__PRICE.

g. For deals consummated off the OASIS by a Seller, after the Customer has accepted the offering, the Templates (transassign and ancassign) may be used by the Seller to notify the Primary Provider of the transfer of rights to the Customer. Continuation records may be used to indicate the reassigning of rights for a ''profile'' of different assignments and different capacities over different time periods.

h. The source of all user and seller contact information shall be the User registration process. Therefore, it shall not be input as part of uploads, but shall be provided as part of all transaction downloads.

i. OASIS shall accept a seller initiated change in STATUS to ACCEPTED only when OFFER__PRICE matches BID__PRICE (i.e., seller must set OFFER__PRICE equal to BID__PRICE prior to or coincident with setting STATUS to accepted)

j. OASIS shall accept a customer initiated change in STATUS to CONFIRMED only when BID__PRICE matches OFFER__PRICE (i.e. customer must set BID__PRICE equal to OFFER__PRICE prior to or coincident with setting STATUS to confirmed).

4.2.10.2 Status Values

The possible STATUS values are:

QUEUED=initial status assigned by TSIP on receipt of ''customer services purchase request''

RECEIVED=assigned by TP to acknowledge QUEUED requests and indicate the service request is being evaluated, including for completing the required ancillary services

STUDY=assigned by TP to indicate some level of study is required or being performed to evaluate service request

OFFER=assigned by TP to indicate that a new OFFER__PRICE is being proposed

REBID=assigned by TC to indicate that a new BID__PRICE is being proposed

ACCEPTED=assigned by TP to indicate service request at the designed OFFER__PRICE has been approved/accepted. Of the reservation request was submitted PRECONFIRMED, OASIS 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 reservation to be completed before accepting a request.

REFUSED=assigned by TP to indicate service request has been denied, SELLER__COMMENTS should be used to communicate reason for denial of service

CONFIRMED=assigned by TC in response to TP posting ''ACCEPTED'' status, to confirm service. Once a request has been ''CONFIRMED'', a transmission service reservation exists

WITHDRAWN=assigned by TC any point in request evaluation to withdraw the request from any further action

DISPLAY=assigned by TP when a ''CONFIRMED'' reservation from a TC is displaced by a longer term request and the TC has exercised right of first refusal (i.e. refused to match terms of new request)

ANNULLED=assigned by TP when, by mutual agreement with the TC, a confirmed reservation is to be voided

RETRACTED=assigned by TP when the TC fails to confirm or withdraw the request within the required time period

BILLING CODE 6717–01–M

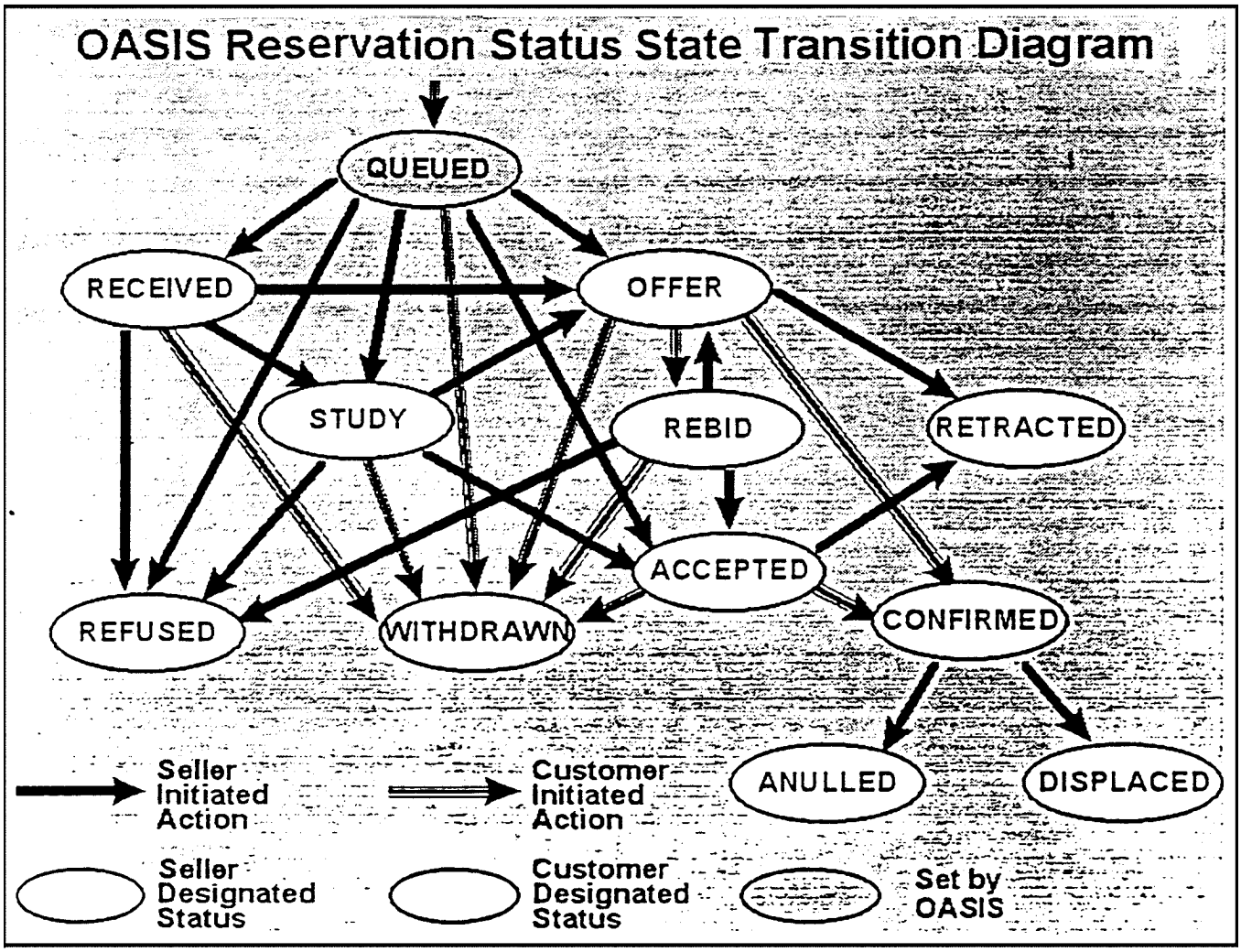

Exhibit 4-1 - State Diagram of Purchase Transactions

BILLING CODE 6716–01–C

4.2.10.3 Nynamic Notification

Customers may specify the delivery of dynamic notification messages on each change in STATUS of an ancillary or transmission service reservation. OASIS 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 identifies 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 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.

4.2.10.3.1 HTTP Notification

OASIS 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. OASIS 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 URI 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'', OASIS shall deliver and HTTP notification message using the URL: http://oasistic.xyz.com:80/cgi-bin/status? DEAL__REF=8&REQUEST__REF=173

If the STATUS__NOTIFICATION field contained only the ''http:'' protocol designation, the notifcation message would be deliverd using the URL: http://oasistc.xyz.com:80

The contents of the HTTP protocol notification message delivered by OASIS 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 GET method request. In addition to the GET method HTTP header record, OASIS 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 record. OASIS 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 give an ASSIGNMENT__REF of 245 would be,

GET http://oasistc.xyz.com:80chi-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=<appropriate value>
VERSION=1.2
TEMPLATE=transstatus
OUTPUT__FORMAT=DATA
PRIMARY__PROVIDER__CODE=ABC
PRIMARY__PROVIDER__DUNS=123456789
RETURN__TZ=<appropriate value for ABC>
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, and 504, OASIS shall retry up to two more times, once every 5 minutes.

4.2.10.3.2 E-mail Notification

OASIS shall deliver dynamic notification to an e-mail address based to 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 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 shall use a Primary Provider specific default value for RETURN__TZ in formulating the transstatus response information.

4.2.11 Reference Identifiers

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 the service is resold, a new ASSIGNMENT__REF number is assigned, but previous ASSIGNMENT__REF numbers are also kept so that a chain of all transactions related to the service can be maintained.

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 OASIS. This identifier shall be referenced by the Seller in any/all subsequent template submissions which would result in a modification to or deletion of that specific offering or message. 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.

Sellers may aggregate portions of several previous transmission service reservations to create a new offering to be posted on OASIS. 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 OASIS (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.

Sellers may identify their service offerings received from Customers through the Seller supplied value specified for the SALE__REF data element.

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.

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:

- *M*andatory, which implies that the Primary Provider must provide the ancillary service
- *R*equired, which implies that the ancillary service is required, but not necessarily from the Primary Provider
- *O*ptional, which implies that the ancillary service is not necessarily required, but could be provided
- *U*nknown, 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); RV:(AA); RF:(AA 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 ANC__SVC__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 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 indicated optional elements and are not used in the actual linkage itself. Specifically, the :yyy is applicable to only the ''ARA'' 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 (xx[: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

Example 1

Assume ancillary services SC and RV are mandatory from the TP, 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 TP, whose code is ''TPEL'', and RF, EI, SP and SU are self-supplied. The customer code is ''CPSE''

''SC: (TPEL:RQ); (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 TP, 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.

''SE:(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 TP, 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 where ''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 TP, whose code is ''TPEL'', and ancillary services RF, EI, SP and SU were purchased via prior OASIS reservations from sellers ''SANCS'' and ''TANC'', whose reservation numbers where ''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 mw's'' 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))''

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 modes. The definitions of the data elements are listed in the Data Element Dictionary in Appendix A.

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 Services Types and Templates on-line, 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.

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	ancser
4.3.4 Query/Response of Schedules and Curtailments	Query/Response Transmission Schedules	schedule
	Query/Response Curtailments	curtail
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 Query/Response of Audit Log	Query/Response Audit Log	auditlog
4.3.7 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
	Alternate POD/POR	transalt
	Seller Reassign Rights (Input)	transassign
4.3.8 Seller Posting of Transmission Service	Seller Post Transmission Service for Sale (Input)	transpost
	Seller Modify (Remove) Transmission Service for Sale (Input).	transupdate
4.3.9 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
4.3.10 Seller Post Ancillary Service	Seller Post Ancillary Service (Input)	ancpost
	Seller Modify (Remove) Ancillary Service for Sale (Input)	ancupdate
4.3.11 Informal Messages	Post Want Ads (Input)	messagepost
	Query/Response Want Ads	message
	Delete Want Ad (Input)	messagedelete
	Personnel Transfers	personnel
	Discretion	discretion
	Personnel Transfers	personnel
	Standards of Conduct	stdconduct

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 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 be at last 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 for.

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.

4.3.2.1 Transmission Capacity Offerings Available for Purchase (transoffering)

Transmission Services Offerings Available for Purchase (transoffering) is used to offer transmission services that are posted for sale by the Primary Provider or Resellers. At a minimum this Template must be used to post TTC and each increment and type of service by applicable regulations and the Primary Provider's tariffs.

This Template must include, for each posted path, the Primary Provider's TTC, firm ATC and non-firm ATC, as required by FERC orders 888 and 889 (plus revisions) and/or if provided in the Primary Provider's tariff. Additional transmission services may be offered with the same Template.

The POSTING__REF is set by the TSIP when an offering is posted and can be used in *transrequests* 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*
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
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__CURTAIMENT__PRIORITY
SELLER__NAME
SELLER__PHONE
SELLER__FAX
SELLER__EMAIL
SELLER__COMMENTS

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
ANC__SERVICE__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
ANCILLARY__SERVICE__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

4.3.3 Query/Response of Services Information

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__CURTAIMENT__PRIORITY, and OTHER__CURTAIMENT__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

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
ANC__SERVICE__TYPE
CEILING__PRICE
PRICE__UNITS
SERVICE__DESCRIPTION
TARIFF__REFERENCE

4.3.4 Query/Response of Schedules and Curtailments

4.3.4.1 Hourly Schedule (schedule)

Hourly Schedule (schedule) is used to show what a Provider's scheduled transmission capacity usage actually was for specific Paths. All the information provided is derived from that in the transmission reservation (see Template transstatus), except CAPACITY__SCHEDULED, which is the amount of the reservation which was scheduled. Posting of the schedules is organized around the transmission reservations, not the energy schedules. This may require the Primary Provider to map schedules back to the reservation. These records would have to be created for all reservations/schedules done off the OASIS during the operations scheduling period.

Template: schedule

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*
START__TIME
STOP__TIME
TIME__OF__LAST__UPDATE
ASSIGNMENT__REF

2. Response

TIME__OF__LAST__UPDATE
SELLER__CODE
SELLER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
CUSTOMER__CODE
CUSTOMER__DUNS
AFFILIATE__FLAG
START__TIME (start time of schedule)
STOP__TIME (stop time of schedule)
CAPACITY (reserved)
CAPACITY__SCHEDULED (total of energy scheduled for this customer for this reservation for this hour)
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__WINDOW
TS__SUBCLASS
NERC__CURTAILMENT__PRIORITY
OTHER__CURTAILMENT__PRIORITY
ASSIGNMENT__REF (Last rights holder)

4.3.4.2 Curtailment/Interruption (curtail)

Curtailment/Interruption (curtail) provides additional information about the actual curtailment of transmission reservations that have been scheduled for energy exchange. All fields are derived from the reservation except the CAPACITY__CURTAILMENT, CURTAILMENT__REASON and CURTAILMENT__OPTIONS. These fields provide information on the reasons for the curtailment, procedures to be followed and options for the Customer, if any, to relieve the curtailment.

Template: curtail

1. Query

PATH__NAME
SELLER__CODE*
SELLER__CODE
CUSTOMER__CODE*
CUSTOMER__DUNS*
POINT__OF__RECEIPT*
POINT__OF__DELIVERY*

SERVICE__INCREMENT*
TS__CLASS*
TS__TYPE*
TS__PERIOD*
START__TIME
STOP__TIME
TIME__OF__LAST__UPDATE
ASSIGNMENT__REF

2. Response

TIME__OF__LAST__UPDATE
SELLER__CODE
SELLER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
CUSTOMER__CODE
CUSTOMER__DUNS
AFFILIATE__FLAG__START__TIME (Start time of curtailment)
STOP__TIME (Start time of curtailment)
CAPACITY (Capacity reserved)
CAPACITY__SCHEDULED
CAPACITY__CURTAILED
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__WINDOW
TS__SUBCLASS
HERC__CURTAILMENT__PRIORITY
OTHER__CURTAILMENT__PRIORITY
CURTAILMENT__REASON
CURTAILMENT__PROCEDURES
CURTAILMENT__OPTIONS
ASSIGNMENT__REF

4.3.5 Query/Response of Lists of Information

4.3.5.1 List (list)

List (list) is used to provide lists of valid names. The minimum set of lists is LIST, SELLER__CODEs, PATHs, PORs, PODs, SERVICE__INCREMENTs, TS__CLASSes, TS__TYPEs, TS__PERIODs, NERC__CURTAILMENT__PRIORITY, OTHER__CURTAILMENT__PRIORITY, ANCILLARY__SERVICE__TYPEs, CATEGORYs, and TEMPLATEs. These names may be used 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

4.3.6 Query/Response to Obtain the Audit Log

4.3.6.1 Audit Log Information (auditlog)

Audit Log Information (auditlog) is used to provide a means of accessing the required audit information. The TSIP will maintain two types of logs:

a. Log of all changes to posted TS Information, such as CAPACITY. This log will record as a minimum the time of the change, the Template name, the name of the Template data element changed and the old and new values of the Template data element.

b. A complete record of all transaction events, such as those contained in the Templates 4.3.8, 4.3.9 and 4.3.10. For transaction event logs, the response will include: TIME__STAMP, TEMPLATE, ELEMENT__NAME, AND NEW__DATA. In this case the value of OLD__DATA in not applicable.

Template: auditlog

1. Query

START__TIME (search against audit log)

STOP__TIME (search against audit log)

2. Response

ASSIGNMENT__REF or POSTING__REF
TIME__STAMP
TEMPLATE
ELEMENT__NAME (for data elements whose values have changed)
OLD__DATA
NEW__DATA

4.3.7 Purchase Transmission Services

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

4.3.7.1 Customer Capacity Purchase Request (transrequest)

The Customer Capacity Purchase Request (Input) (transrequest) is used by the Customer to request the purchase of transmission services. 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 services, which request different capacities 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. Only the following fields may be redefined in a continuation record for the transrequest Template: CAPACITY, BID__PRICE, START__TIME, and STOP__TIME.

For requesting transmission services which include multiple paths, only the following fields may be redefined in a continuation record for the transrequest Template: PATH__NAME. Supporting multiple paths 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.

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
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
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

2. Response (acknowledgement)

RECORD__STATUS
CONTINUATION__FLAG
ASSIGNMENT__REF (assigned by TSIP)
SELLER__CODE
SELLER__DUNS
PATH__NAME

POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
CAPACITY
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__SUBCLASS
STATUS__NOTIFICATION
START__TIME
STOP__TIME
BID__PRICE
PRECONFIRMED
ANC__SVC__LINK
POSTING__REF
SALE__REF
REQUEST__REF
DEAL__REF
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.7.2 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. Transmission Providers shall make source and sink information available at the time the request status posting is updated to show that a transmission request is confirmed.

Only the following fields may be redefined in a continuation record for the transstatus response Template: PATH__NAME, CAPACITY, START__TIME, STOP__TIME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, AND REASSIGNED__STOP__TIME.

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.

Template: transstatus

1. Query

SELLER__CODE*
SELLER__DUNS*
SELLER__CODE*
CUSTOMER__DUNS*
PATH__NAME*
POINT__OF__RECEIPT*
POINT__OF__DELIVERY*
SERVICE__INCREMENT*
TS__CLASS*
TS__TYPE*
TS__PERIOD*
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
SALE__REF
REQUEST__REF
DEAL__REF
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 (total reservation)
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
PRECONFIRMED
ANC__SVC__LINK
ANC__SVC__REQ
ALTERNATE__SERVICE__FLAG
POSTING__REF
SALE__REF
REQUEST__REF
DEAL__REF
NEGOTIATED__PRICE__FLAG (''L'' if Seller accepted Price is lower than OFFER__PRICE in transoffering Template; ''H'' if higher; otherwise blank)
STATUS=RECEIVED, QUEUED, STUDY, REBID, OFFER, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, DISPLACED, ANNULLED, RETRACTED
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__CAPACITY (Capacity from each previous transaction)
REASSIGNED__START__TIME
REASSIGNED__STOP__TIME

4.3.8.3 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.

If preconfirmed then Seller can only change values of data elements, STATUS, STATUS__COMMENTS, SELLER__COMMENTS, REASSIGNED__REF, NEGOTIATED__PRICE__FLAG, ANC__SRV__REQ, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, and REASSIGNED__CAPACITY. If not preconfirmed, then the Seller can also change OFFER__PRICE.

Only the following fields may be redefined in a continuation record for the transsell Template: REASSIGNED__CAPACITY, OFFER__PRICE, REASSIGNED__REF, REASSIGNED__START__TIME, and REASSIGNED__STOP__TIME.

SELLER__CODE and SELLER__DUNS shall be determined from the registered connection used to input the request.

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)
OFFER__PRICE
STATUS= RECEIVED, STUDY, OFFER, ACCEPTED, REFUSED, ANNULLED, RETRACTED, DISPLACED
STATUS__COMMENTS
OTHER__CURTAILMENT__PRIORITY (optional)
ANC__SVC__REQ
NEGOTIATED__PRICE__FLAG
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
OFFER__PRICE
STATUS= RECEIVED, STUDY, OFFER, ACCEPTED, REFUSED, ANNULLED, RETRACTED, DISPLACED
STATUS__COMMENTS
OTHER__CURTAILMENT__PRIORITY
ANC__SVC__REQ
NEGOTIATED__PRICE__FLAG
SELLER__COMMENTS
RESPONSE__TIME__LIMIT
REASSIGNED__REF
REASSIGNED__CAPACITY (Previous capacity to be reassigned)
REASSIGNED__START__TIME
REASSIGNED__STOP__TIME
ERROR__MESSAGE

4.3.7.4 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.

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 for each record before the STATUS can be set to CONFIRMED.

Template: transcust

1. Input

CONTINUATION__FLAG
ASSIGNMENT__REF (Required)
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS= REBID, CONFIRMED, WITHDRAWN
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
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS= REBID, CONFIRMED, WITHDRAWN
STATUS__COMMENTS
ANC__SVC__LINK
STATUS__NOTIFICATION
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.7.5 Alternate Point of Receipt/Delivery (transalt)

Alternate Point of Delivery (transalt). The Customer may submit a request to use alternate points of receipt/delivery for an existing confirmed reservation, if allowed by applicable tariffs and service agreements. The assignment reference value associated with the prior confirmed reservation must be provided in the REASSIGNED__REF data element along with the alternate points of receipt/delivery. The request may be submitted as PRECONFIRMED. Requests submitted by the transalt template shall be handled by OASIS identically to reservations submitted using the transrequest template.

CUSTOMER__CODE and CUSTOMER__DUNS shall be determined from the registered connection used to input the request.

REASSIGNED__REF contains the ASSIGNMENT__REF of the original, confirmed reservation that is being designated to the alternate points of delivery/receipt. The Template allows for only one REASSIGNED__REF Field. Therefore, if multiple, original reservations are being designated, a separate transalt Template must be submitted associated with each original reservation. There is no restriction that multiple submissions of the transalt Template may all refer back to the same, original reservation (i.e., may have the same REASSIGNED__REF).

Demand profiles associated with the designation of alternate POD/POR may be submitted by additional records designating ''Y'' for CONTINUATION__FLAG, and specifying the CAPACITY, START__TIME, and STOP__TIME data elements corresponding to the MW demand being requested over each time interval associated with the reservation. The CAPACITY, START__TIME, and STOP__TIME data elements must fall within the amounts and time intervals associated with the original reservation.

The following data elements in transstatus and the appropriate ones in transcust shall take on the following implied values:

SELLER__CODE (value from SELLER__CODE in reservation designated by REASSIGNED__REF)
SELLER__DUNS (value from SELLER__DUNS in reservation designated by REASSIGNED__REF)
ALTERNATE__SERVICE__FLAG = YES
OFFER__PRICE = S0
BID__PRICE = S0
CEILING__PRICE = S0
TS__CLASS = Non-Firm (or whatever the Provider designates)
REASSIGNED__CAPACITY = MW capacity submitted in CAPACITY field of Template
REASSIGNED__START__TIME = time submitted in START__TIME field of Template
REASSIGNED__STOP__TIME = time submitted in STOP__TIME field of Template

Template: transalt

1. Input

CONTINUATION__FLAG
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
PRECONFIRMED
CAPACITY (Must be less than or equal to original capacity reservation)
STATUS__NOTIFICATION
START__TIME (Valid only to hour and within the time of original reservation)
STOP__TIME (Valid only to hour and within the time of original reservation)
REQUEST__REF
DEAL__REF
REASSIGNED__REF (Assignment Reference for the Firm reservation being used for request)
CUSTOMER__COMMENTS

2. Response (acknowledgment)

RECORD__STATUS
CONTINUATION__FLAG
ASSIGNMENT__REF (assigned by the TSIP)
SELLER__CODE (Primary)
SELLER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
PRECONFIRMED
ALTERNATE__SERVICE__FLAG (Defaulted to YES)
CAPACITY (Capacity requested)
STATUS__NOTIFICATION
START__TIME
STOP__TIME
REQUEST__REF

DEAL__REF
REASSIGNED__REF (Assignment Reference for the Firm reservation being used for request)
ERROR__MESSAGE

4.3.7.6 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. 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, 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: transassign

1. Input

CONTINUATION__FLAG
CUSTOMER__CODE
CUSTOMER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
CAPACITY
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__SUBCLASS
START__TIME
STOP__TIME
OFFER__PRICE
ANC__SVC__LINK (optional: filled in if assignment is different than original transmission reservation)
POSTING__NAMES
REASSIGNED__REF
REASSIGNED__CAPACITY (Capacity being sold from each previous assignment)
REASSIGNED__START__TIME
REASSIGNED__STOP__TIME
SELLERS__COMMENTS

2. Response (acknowledgement)

RECORD__STATUS
CONTINUATION__FLAG
ASSIGNMENT__REF (assigned by TSIP)
CUSTOMER__CODE
CUSTOMER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
CAPACITY (Total capacity being reassigned)
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
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
ERROR__MESSAGE

4.3.8 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:

4.3.8.1 Seller Capacity Posting (transpost)

Seller Capacity Posting (Input) (transport 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
OTHER__CURTAILMENT__PRIORITY (optional)
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
OTHER__CURTAILMENT__PRIORITY
ANC__SVC__REQ
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SERVICE__DESCRIPTION
SELLER__COMMENTS
ERROR__MESSAGE

4.3.8.2 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

4.3.9 Purchase of Ancillary Services

4.3.9.1 Customer Requests to Purchase Ancillary Services (ancrequest)

Customer Requests to Purchase Ancillary Services (ancrequest) (Input, Template Upload) is used by the customer to purchase ancillary services that have been posted by a seller of those services. The same requirements exist for the use of STATUS__NOTIFICATION as for transrequest. The reference Data Elements are optional.

CUSTOMER__CODE and CUSTOMER__DUNS shall be determined from the registered connection used to input the request.

Template: ancrequest

1. Input

SELLER__CODE
SELLER__DUNS
CONTROL__AREA
CAPACITY
SERVCIE__INCREMENT
ANC__SERVICE__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
ASSIGNMENT__REF (assigned by TSIP)
SELLER__CODE
SELLER__DUNS
CONTROL__AREA
CAPACITY
SERVICE__INCREMENT
ANC__SERVCIE__TYPE
STATUS__NOTIFICATION
START__TIME
STOP__TIME
BID__PRICE
PRECONFIRMED

POSTING__REF
SALE__REF
REQUEST__REF
DEAL__REF
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.9.2 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.

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
SERVICE__INCREMENT
ANC__SERVICE__TYPE
STATUS
START__TIME
STOP__TIME
START__TIME__QUEUED
STOP__TIME__QUEUED
ASSIGNMENT__REF
SALE__REF
REQUEST__REF
DEAL__REF
TIME__OF__LAST__UPDATE (only if TIME__OF__LAST__UPDATE is posted by record)

2. Response

ASSIGNMENT__REF
SELLER__CODE
SELLER__DUNS
CUSTOMER__CODE
CUSTOMER__DUNS
AFFILIATE__FLAG (Set by TSIP)
CONTROL__AREA
CAPACITY
SERVICE__INCREMENT
ANC__SERVICE__TYPE
START__TIME
STOP__TIME
CEILING__PRICE
OFFER__PRICE
BID__PRICE
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=QUEUED, RECEIVED, REBID, OFFER, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, ANNULLED, RETRACTED
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

4.3.9.3 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 an ancillary service.

SELLER__CODE and SELLER__DUNS shall be determined from the registered connection used to input the request.

Template: ancsell

1. Input

ASSIGNMENT__REF (Required)
OFFER__PRICE
STATUS=RECEIVED, OFFER, ACCEPTED, REFUSED
STATUS__COMMENTS
SELLER__COMMENTS

2. Response (acknowledgment)

RECORD__STATUS
ASSIGNMENT__REF
OFFER__PRICE
STATUS=RECEIVED, OFFER, ACCEPTED, REFUSED
STATUS__COMMENTS
NEGOTIATED__PRICE__FLAG
RESPONSE__TIME__LIMIT
SELLER__COMMENTS
ERROR__MESSAGE

4.3.9.4 Customers accepts Ancillary Service (anccust)

Customers 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 STATUS can 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

ASSIGNMENT__REF (Required)
REQUEST__REF
DEAL—REF
BID__PRICE
STATUS=REBID, CONFIRMED, WITHDRAWN
STATUS__COMMENTS
STATUS__NOTIFICATION (If left blank, then the original URL from the ancrequest will be used
CUSTOMER__COMMENTS

2. Response (Acknowledgment)

RECORD__STATUS
ASSIGNMENT__REF
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS=REBID, CONFIRMED, WITHDRAWN
STATUS__COMMENTS
STATUS__NOTIFICATION
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.10 Seller Posting of Ancillary Services

4.3.10.1 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
ANC__SERVICE__TYPE
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SELLER__COMMENTS

2. Response (acknowledgement)

RECORD__STATUS
POSTING__REF (Assigned by TSIP)
CONTROL__AREA
SERVICE__DESCRIPTION
CAPACITY
SERVICE__INCREMENT
ANC__SERVICE__TYPE
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SELLER__COMMENTS
ERROR__MESSAGE

4.3.10.2 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__STATES
POSTING__REF
CAPACITY
SERVICE__DESCRIPTION
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SELLER__COMMENTS
ERROR__MESSAGE

4.3.11 Informal Messages

4.3.11.1 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.

One CATEGORY shall be DISCOUNT. All discount prices accepted by a Customer shall be immediately posted as a message using the DISCOUNT CATEGORY. This will permit carry-over from Phase 1.

CUSTOMER__CODE and CUSTOMER__DUNS shall be determined from the registered connection used to input the request.

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

4.3.11.2 Message (message)

Message (message) is used to view a posted Want Ad or Informal Message. The CATEGORY data element can be queried. Specifically it shall be possible to query for the CATEGORY of DISCOUNT. This will permit carry-over from Phase 1.

Template: message

1. Query

CUSTOMER__CODE
CUSTOMER__DUNS
POSTING__REF
CATEGORY
VALID__FROM__TIME
VALID__TO__TIME
TIME__POSTED

2. Response

CUSTOMER__CODE
POSTING__REF
SUBJECT
CATEGORY
VALID__FROM__TIME
VALID__TO__TIME
TIME__POSTED
CUSTOMER__NAME
CUSTOMER__PHONE
CUSTOMER__FAX
CUSTOMER__EMAIL
MESSAGE

4.3.11.3 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

4.3.11.4 Personnel Transfers (personnel)

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
DATE__TIME__POSTED
TIME__OF__LAST__UPDATE

4.3.11.5 Discretion (discretion)

Template: discretion

1. Query

START__TIME__POSTED
STOP__TIME__POSTED
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

4.3.11.6 Standards of Conduct (stdconduct)

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

4.4 FILE REQUEST AND FILE DOWNLOAD EXAMPLES

4.4.1 File Example for Hourly Offering

Example of the request to Primary Provider, aaa, and response for Seller, wxyz, for PATH__NAME ''W/AAAA/PATH–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 Phase 1A is 1.2.

The request is in the form of a URL query string and the response is a ASCII delimited file.

1. Query

http://(OASIS Node name)/OASIS/aaa/data/transoffering? ver=1.2 &templ=transoffering &fmt=data &pprov=AAAA &pprovduns=123456789 &path=W/AAA/ABC// &seller=WXYZAA &sellerduns=987654321 &POR=aaa &POD=bbb &service=hourly &TSCLASS1=firm &TSCLASS2=non-firm &stime=19960410080000PD &sptime=19960410150000PD

2. Response Data

REQUEST-STATUS=200↵ *(Successful)*
TIME__STAMP=19960409113526PD↵
VERSION=1.2↵
TEMPLATE=transoffering↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AAAA↵
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__SUBCLASS, SALE__REF, POSTING__REF, CEILING__PRICE, OFFER__PRICE, PRICE__UNITS, SERVICE__DESCRIPTION, SELLER__NAME, SELLER__PHONE, SELLER__FAX, SELLER-EMAIL, SELLER__COMMENTS↵
19960409030000PD,WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410080000PD,19960410090000PD,300, HOURLY, FIRM, POINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410080000PD,19960410090000PD,300, HOURLY, NON-FIRM, POINT__T0__POINT. OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410090000PD,1996041010000PD,300, HOURLY, FIRM, POINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410090000PD,199604100000PD,300, HOURLY, NON-FIRM, POINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410100000PD,19960410110000PD,300 HOURLY, NON-FIRM, POINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410100000PD,19960410110000PD,19960410110000PD,300, HOURLY, NON-FIRM, POINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410110000PD,19960410120000PD,300, HOURLY, FIRMPOINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410110000PD,19960410120000PD,300, HOURLY, NON-FIRM, POINT__T0__POINT, OFF__PEAK ,N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
. . .
. . .
. . .
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410140000PD,19960410150000PD,300, HOURLY, FIRM, POINT__T0__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
1996040903000PD. WXYZ. 987654321. W/AAA/ABC//, N/A,N/A,E. 19960402080000PD, 19960410080000PD, 19960410140000PD. 19960410150000PD.300. HOURLY, NON-FIRM, POINT__ TO__ POINT, OFF__PEAK, N/A, N/A,A001,1.50. 1,35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵

4.4.2 File Example for Hourly Schedule Data

The 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, 1996.

There are two idential 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/aaa/data/schedule? ver=1.0 & pprov=AAAA & templ=schedule & fmt=data & pprovduns=123456789 & path=W/AAA/ABC// & seller=WXYZ & por=BBB & CCC & tz=PD & stime=19960410100000PD & sptime=19960410150000PD

URL request (HTTP method=POST)

S fetch__http http://(OASIS Node name)/OASIS/aaa/data/ OASISDATA-fc:*/OASIS/ wxyz/upload/in-file.txt* Where *in-file.txt* contains the following: ver=1.0 & pprov=AAAA & Templ=schedule & fmt=data & pprovduns=123456789 & path=W/AAA/ABC// & seller=WXYZ &por=BBB &pod=CCC & tz=PD & stime=19960410100000PD & sptime-19960410150000PD

2. Response Data

REQUEST-STATUS=200↵

TIME__STAMP=19960410114702PD↵
VERSION-1.2↵
TEMPLATE=schedule↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AAAA↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=5↵
COLUMN__HEADERS=TIME__OF__LAST__UPDATE, SELLER__CODE. SELLER__DUNS, PATH__NAME, POINT__OF__RECEIPT. POINT__OF__DELIVERY, CUSTOMER__CODE. CUSTOMER__DUNS, AFFILIATE__FLAG, START__TIME. STOP__TIME, CAPACITY, CAPACITY__SCHEDULED, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, ASSIGNMENT__REF↵
1996049030000pd.wxyz.0987654321. W/AAA/ABC//.BBB.CCC. WXYZAA.0987654322.Y.19960410100000PD. 19960410110000PD.300.300. HOURLY, FIRM, POINT__ TO__ POINT, OFF__ PEAK, N/A, 856743↵
. . .↵
. . .↵
1996049030000pd.wxyz.0987654321. W/AAA/ABC//.BBB.CCC.WXYZAA. 0987654322.Y. 19960410130000PD. 19960410140000PD.300.300. HOURLY, FIRM, POINT__ TO__ POINT, OFF__ PEAK, N/A, 856743↵
1996049030000pd.wxyz. 0987654321.W/AAA/ABC//.BBB.CCC. WXYZAA.0987654322.Y. 19960410140000PD. 19960410150000PD.300.300. HOURLY, FIRM, POINT__ TO__ POINT, OFF__ PEAK, N/A, 856743↵

4.4.3 Customer Posting a Transmission Service Offering

The example shows how a 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-1.2↵
TEMPLATE=transpost↵
OUTPUT__ FORMAT=DATA↵
PRIMARY__ PROVIDER__ CODE=AAAA↵
PRIMARY__ PROVIDER__ DUNS=123456789↵
DATA__ ROWS=1↵
COLUMN__HEADERS=PATH__NAME, POINT__OF__DELIVER, INTERFACE__TYPE, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__START__ TIME, OFFER__STOP__ TIME, SALE__REF. OFFER__PRICE, SERVICE__DESCRIPTION, SELLER__COMMENTPF↵
WXYZ.987654321.W/AAA/ABC//.N/A,N/A.E.150, HOURLY, FIRM, POINT__ TO__ POINT, OFF__ PEAK, N/A/ .19960402080000PD, 19960410080000PD, 19960410080000PD, 199604101500PD, A123.90.N/A, ‘‘As Joe said, ‘‘‘It is a good buy’’’’’↵
FETCH__ HTTP Command to send posting
S fetch__ http http//(OASIS Node name)/OASIS/abcd/data/transrequest-fc:/OASIS/abcd/upload/*post.txt*

2. Response Data

REQUEST-STATUS=200↵(Successful)
TIME__ STAMP=19960409113526PD↵
VERSION-1.2↵
TEMPLATE=transpost↵
OUTPUT__ FORMAT=DATA↵
PRIMARY__PROVIDER__ CODE=AAAA↵
PRIMARY__ PROVIDER__ DUNS=123456789↵
DATA__ ROWS=1↵
COLUMN__HEADERS=RECORD__STATUS, PATH__NAME, POINT__OF__RECEIPT, POINT__OF__DELIVER, INTERFACE__TYPE, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__START__TIME, OFFER__STOP__ TIME__TIME, SALE__REF, OFFER__PRICE, SERVICE__DESCRIPTION, SELLER__COMMENTS, ERROR__MESSAGE↵
200.WXYZ.987654321, W/AAA/ABC//,N/A, N/A. E.150, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A. 19960402080000PD, 19960410080000PD, 19960410080000PD, 19960410150000PD, A123,.90, N/A/, ‘‘As Joe said, ‘‘‘It is a good buy’’’’’, No Error↵

4.4.4 Example of Re-aggregating Purchasing Services using Reassignment

The following examples do not show the complete Template information, but only show those elements of the Template of interest to the example.

a. 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 Information Provider assigns ASSIGNMENT__REF=5000 on acknowledgment.

b. Customer #1 purchases 120 MW ATC Non-firm for 3 p.m. to 9 p.m. for $.90 *(transrequest).* The Information Provider 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. 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. 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 Information Provider provides the ASSIGNMENT__REF=5002 for this transaction.

e. Seller informs the Information Provider of the reassignment of the previous transmission rights when the seller accepts the 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''↵

4.4.5 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 Seller 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, START__TIME, STOP__TIME. Specification of any values corresponding to COLUMN__HEADERs other than CAPACITY, START__TIME, and STOP__TIME will be ignored, however commas must be included to properly align the CAPACITY, START__TIME and STOP__TIME fields.

Input:

VERSION=1.2↵

TEMPLATE=transrequest↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=7↵
COLUMN__HEADERS=CONTINUATION__FLAG, SELLER__CODE, SELLER__DUNS, PATH__NAME, POINT__OF__RECEIPT. POINT__OF__DELIVERY, SOURCE, SINK, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD. TS__SUBCLASS, STATUS__NOTIFICATION, START__TIME, STOP__TIME, BID__PRICE. PRECONFIRMED, ANC__SVC__LINK, POSTING__REF, SALE__REF, REQUEST__REF, DEAL__REF, CUSTOMER__COMMENTS↵
N. AEP, 123456789, ABC/XY, CE, MECS...35, DAILY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A., pub/AEP/incoming, 19970423000000ES, 19970424000000ES, 24.50, Y.SC: (cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(custR234);SU:(cust:R345), PO123, S123, R765, D123, Standard daily reservation↵
N. AEP, 123456789, ABC/XY, CE, AMPO....5, HOURLY, NON-FIRM. POINT__TO__POINT, OFF__PEAK, N/A. pub/AEP/incoming, 19970423060000ES, 19970423070000ES, 2.50, Y, SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R 123); SP:(custR234); SU:(cust:R345), P0123, S123, R765, D123, First piece of profile spanning 5 records↵
Y.....10.....19970423070000ES, 19970423080000ES.....Second piece↵
Y.....15.....19970423080000ES, 19970423200000ES.....Third piece↵
Y.....10.....19970423200000ES, 19970423210000ES.....Fourth piece↵
Y.....5.....19970423210000ES, 19970423220000ES.....Fifth piece↵
N. AEP, 123456789, ABC/XY, CE, MECS... 20, HOURLY, FIRM POINT__TO__POINT, OFF__PEAK, N/A, pub/AEP/incoming, 19970423040000ES, 19970423160000ES, 2.00, Y .SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R123); SP:(custR234); SU:(cust:R345), PO123, S123, R765, D123, Standard hourly reservation after profiled reservation↵

Response:

REQUEST__STATUS=200↵
TIME__STAMP=19970422160523ES↵
TEMPLATE=transrequest↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=7↵
COLUMN__HEADERS=RECORD__STATUS. CONTINUATION__FLAG, SELLER__CODE. SELLER__DUNS. PATH__NAME. POINT__OF__RECEIPT. POINT__OF__DELIVERY. SOURCE, SINK, CAPACITY, SERVICE__INCREMENT. TS__CLASS. TS__TYPE. TS__PERIOD. TS__SUBCLASS. STATUS__NOTIFICATION. START__TIME. STOP__TIME. BID__PRICE. PRECONFIRMED. ANC__SVC__LINK. POSTING__REF. SALE__REF. REQUEST__REF. DEAL__REF, CUSTOMER__COMMENTS. ERROR__MESSAGE↵
200. N. AEP. 123456789. ABC/XY. CE, MECS...35, DAILY. FIRM. POINT__TO__POINT. OFF__PEAK, N/A, pub/AEP/incoming, 19970423000000ES, 19970424000000ES, 24.50.Y.SC:(cust:SP):RV:(cust:SP):RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345), P0123, S123, R765, D123, Standard daily reservation, No error↵
200. N. AEP. 123456789. ABC/XY. CE, AMPO...5, HOURLY. NON-FIRM. POINT__TO__POINT. OFF__PEAK. N/A/, pub/AEP/incoming. 19970423060000ES, 19970423070000ES, 2.50. Y.SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R123);SP:(custR234); SU:(cust:R345). PO123, R765, D123. First piece of profile spanning 5 records. No error↵
200. Y.....10.....19970423070000ES, 19970423080000ES.....Second piece. No error↵
200. Y.....15.....19970423080000ES, 19970423200000ES.....Third piece. No error↵
200. Y.....10.....19970423200000ES, 19970423210000ES.....Fourth piece. No error. ↵
200. Y.....5.....19970423210000ES, 19970423220000ES.....Fifth piece. No error. ↵
200. N. AEP. 123456789, ABC/XY, CE, MECS...20. HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A. pub/AEP/incoming, 19970423040000ES, 19970423160000ES, 2.00, Y. SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345). PO123, S123, R765, D123. Standard hourly reservation after profiled reservation. No error↵

b. Submission of Reassignment Information—Case 1:

In the prior example, a reservation request was submitted to ''Rseler'' for 20 MW of Hourly Non-firm service from 04:00 to 16:00. Assume that Rseler 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 4/23 under ASSIGNMENT__REF=7880. Rseler must designate which transmission service rights are to be reassigned to Cust to satisfy the 20MW from 04:00 to 16:00. This reassignment information is conveyed by Rseler 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=1.2↵
TEMPLATE=transsell↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵

PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROW=3↵
COLUMN__HEADERS=RECORD__STATUS, CONTINUATION__FLAG, ASSIGNMENT__REF. OFFER__PRICE. STATUS. STATUS__COMMENTS. ANC__SVC__LINK. SELLER__COMMENTS. REASSIGNED__REF. REASSIGNED__CAPACITY. REASSIGNED__START__TIME. REASSIGNED__STOP__TIME N. 8236. 2.00, ACCEPTED. Status comments here. SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R123);SP:(CustR234); SU:(cust:R345). Seller comments here. 7019.20, 19970423040000ES. 19970423080000ES↵
200. Y.....7880. 10. 19970423080000ES. 19970423160000ES↵
200. Y.....7019. 10. 19970423080000ES. 19970423160000ES↵

Response:

VERSION=1.2↵
TEMPLATE=transsell↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROW=3↵
COLUMN__HEADERS=RECORD__STATUS. CONTINUATION__FLAG, ASSIGNMENT__REF. OFFER__PRICE. STATUS. STATUS__COMMENTS. ANC__SVC__LINK. SELLER__COMMENTS. REASSIGNED__REF. REASSIGNED__CAPACITY. REASSIGNED__START__TIME. REASSIGNED__STOP__TIME, ERROR__MESSAGES 200. N. 8236.2.00, ACCEPTED. Status comments here. SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R123);sp:(CustR234); SU:(cust:R345). Seller comments here. 7019.20, 19970423040000ES. 19970423080000ES↵
200. Y.....7880. 10. 19970423080000ES. 19970423160000ES↵
200. Y.....7019. 10. 19970423080000ES. 19970423160000ES↵

c. Submission of Reassignment Information—Case 2:

Primary provider, AEP, is notified of a sale/assignment of transmission service rights from ''Resell'' to ''cust''. The parameters of the new reservation are for 10MW or 4/23 for ''off-peak'' hours (00:00–06:00 and 22:00–24:00) on POR/POD CE–VP. Rseler is assigning rights to 10MW from a prior reservation for the CE–VP path for Daily Firm in amount of 50 MW on 4/23 under ASSIGNMENT__REF=7019 to Cust. AEP would submit the following information using the transassign Template to post this (re)sale. The only fields allowed in ''continuation'' records for the transassign Template are CAPACITY, START__TIME, STOP__TIME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, and REASSIGNED__STOP__TIME.

Even though there is a one-to-one correspondence between the segments of the new reservations and the reassignment of service from a prior reservation, it is entirely possible that a reservation spanning a single continguous period would require multiple continuation records to convey reassignment information, and vice versa.

Fields for CUSTOMER__NAME and SELLER__NAME were used to convey user names for subsequent resolution of contact information from user registration.

Input:

VERSION=1.2↵
TEMPLATE=transassign↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=2↵
COLUMN__HEADERS=CONTINUATION__FLAG, CUSTOMER__CODE, CUSTOMER__DUNS, PATH__NAME, POINT__OF__RECEIPT, POINT__OF__DELIVERY, SOURCE, SINK, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__PRICE, SALE__REF, POSTING__NAME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, SELLER__COMMENTS↵
N. Resler, 456123789, Cust. 987654321..CE. VP...10. HOURLY. NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A. 19970423000000ES. 19970423060000ES. 2.00, Joe Smith, Jane Doe . N. 19970422121354ES..7019. 10. 19970423000000ES. 19970423060000ES. Seller comments go here↵
Y.....10.....19970423220000ES. 19970424000000ES.....7019. 10. 19970423220000ES. 19970424000000ES↵

Response:

REQUEST__STATUS=200↵
TIME__STAMP=19970422144520ES↵
VERSION=1.2↵
TEMPLATE=transassign↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=2↵
COLUMN__HEADERS=RECORD__STATUS, 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, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__PRICE, SELLER__NAME, CUSTOMER__NAME, TIME__QUEUED,

SALE__REF, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, SELLER__COMMENTS, ERROR__MESSAGE↵
200. N. 8207, Rseler, 456123789, Cust. 987654321, N., CE. VP...10, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A. 19970423000000ES. 19970423060000ES. 2.00, Joe Smith, Jane Doe , 19970422121354ES, . 7019, 10, 19970423000000ES, 19970423060000ES, Seller comments go here.↵
200, Y.....10.....19970423220000ES, 19970424000000ES.....7019, 10, 19970423220000ES, 19970424000000ES..↵

d. Query of Transmission Reservation Status:

The following typical response to a transstatus query might be delivered for 4/23 based on prior examples. Note that the only fields returned in ''continuation'' records are, CAPACITY, 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 4/23>

Response:

REQUEST__STATUS=200↵
TIME__STAMP=19970423040523ES↵
TEMPLATE=transstatus↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=11↵
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, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, CEILING__PRICE, OFFER__PRICE, BID__PRICE, PRECONFIRMED, ANC__SVC__LINK, ALTERNATE__SERVICE__FLAG, POSTING__REF, SALE__REF, REQUEST__REF, DEAL__REF, NEGOTIATED__PRICE__FLAG, STATUS, STATUS__COMMENTS, TIME__QUEUED, 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__TIMES
N. 8207, Rseler, 456123789. ACust. 987654321. N..CE. VP...10, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A. 19970423000000ES, 19970423060000ES, 2.25, 2.00, 6.20. N.SC:(cust:SP):RV:(cust:SP):RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345).N.....N, CONFIRMED..19970422121354ES..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, 19970423000000ES. 19970423060000ES↵
Y,,,,,,,,,,,,10,,,,,,19970423220000ES, 19970424000000ES.....7019, 10, 19970423220000ES, 19970424000000ES↵
N. 8234, Rseler, 456123789. ACust. 987654321.N.CE.MECS...35 DAILY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A. 19970423000000ES, 19970423060000ES, 42.00, 24.50, 24.50, N,SC:(cust:SP):RV(cust:SP);RF(cust:RQ); E1:(cust:R123); SP:(custR234); SU:(cust:R345),N.....N, CONFIRMED..19970422121354ES..Standard daily reservation, System Operator, Customer comments, Frank Orth, (999)–123–4567,(999)–123–1231,jsmith@xyx.com, Jane Doe, (999)–123–4567, (999)–123–8823..7019, 10, 19970423000000ES, 19970423060000ES↵
N. 8235, AEP, 123456789, Cust. 987654321, N.. CE, AMPO...5, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A/ 19970423060000ES, 19970423070000ES, 2.50, 2.50, 6.20, N, SC:(cust:SP):RV(cust:SP);RF(cust:RQ); E1:(cust:R123); SP:(custR234); SU:(cust:R345),N.....N,CONFIRMED..19970422160523ES..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..7019, 10, 19970423000000ES, 19970423060000ES↵
Y.....10.....19970423070000ES, 19970423080000ES.....↵
Y.....15.....19970423080000ES, 19970423200000ES.....↵
Y.....10.....19970423200000ES, 19970423210000ES.....↵
Y.....5.....19970423210000ES, 19970423220000ES.....↵
N, 8236, Rseler, 456123789, Cust, 987654321, N..CE, VP...20,HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A, 19970424040000ES, 19970424160000ES, 2.00, 2.50, 6.20, N.....CONFIRMED,, 19970422160523ES..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..7019, 20, 19970423040000ES, 199704230080000ES↵
Y.....7880.10.....19970423080000ES, 19970423160000ES↵
Y.....7019.10.....19970423080000ES, 19970423160000ES↵

4.4.6 Example of Negotiation of Price

4.4.6.1 Negotiation with Preconfirmation

a. The Customer submits a PRECONFIRMED transmission service request using the transrequest Template. Initially, the STATUS is set to QUEUED by OASIS.

b. The Seller has the option of setting STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, or REFUSED. Since the request is PRECONFIRMED, the Seller is blocked from altering OFFER__PRICE by OASIS, and blocked from setting status to OFFER.

c. If the Seller sets STATUS to ACCEPTED, OASIS will immediately set STATUS to CONFIRMED and sets the OFFER__PRICE to the BID__PRICE.

d. The Customer may WITHDRAW request via transcust Template at any time up to point where the Seller sets STATUS to ACCEPTED.

e. Once the STATUS is CONFIRMED, the OFFER__PRICE officially becomes the terms of the reservation.

4.4.6.2 Negotiations without Preconfirmation

a. The 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 OASIS.

b. The Seller has the option of setting the STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets the OFFER__PRICE to the price he wants, and sets the STATUS to OFFER via the transsell Template.

d. The 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.

e. The OFFER__PRICE with the STATUS of CONFIRMED locks in the terms of the reservation.

4.4.6.3 Multiple Step Negotiations

a. The 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 OASIS.

b. The Seller has the option of setting STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets the OFFER__PRICE to the desired value, and sets the STATUS to OFFER via the transsell Template.

d. The Customer responds to the new OFFER__PRICE with an updated BID__PRICE and sets the STATUS to REBID for re-evaluation by the Seller.

e. 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 OFFER rather than ACCEPTED (see item c).

f. The Customer agrees to the OFFER__PRICE and sets the STATUS to CONFIRM via the transcust Template.

g. The OFFER__PRICE with the STATUS as CONFIRMED locks in the terms of the reservation.

4.4.6.4 Negotiations Refused by Seller

a. The 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 OASIS.

b. The Seller has the option of setting the STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets OFFER__PRICE to his desired value, and sets STATUS to OFFER via the transsell Template.

d. The 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 REFUSED.

4.4.6.5 Negotiations Withdrawn by Customer

a. The 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 OASIS.

b. The Seller has the option of setting STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets the OFFER__PRICE to his desired value, and sets the STATUS to OFFER via the transsell Template.

d. The Customer responds to the OFFER__PRICE with an updated BID__PRICE and sets the STATUS to REBID for re-evaluation by Seller.

e. The Seller determines that the BID__PRICE is still too low, sets the OFFER__PRICE to another value, and sets STATUS to OFFER via the *transsell* Template.

f. The Customer breaks off all further negotiations by setting STATUS to WITHDRAWN (or the customer/seller could go through additional iterations of REBID/OFFER until negotiations are broken off or the reservation is CONFIRMED).

4.5 Information Supported by Web Page

There shall be a Web page on each OASIS node with information on requesting the text file of the tariffs and service agreements.

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.

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.

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 to access to TS Information beyond the lowest Access Privilege.

f. Service Request Transactions: Whenever Service Request transactions are implemented entirely over the OASIS, 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.

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 Services Requests.

c. Access Privilege Read/Write: A Secondary Provider shall have write access to his own Provider Account on an OASIS Node.

5.3 OASIS Response Time Requirements

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

- The response capabilities of the OASIS Node server to process interactions with Users.
- The bandwidth of the connection(s) between the OASIS Node server and the Internet.

Therefore, the OASIS response time requirements are as follows:

a. OASIS Node Server Response Time: The OASIS Node server shall be capable of supporting its connection(s) to Users with an average aggregate data rate of at least ''A'' bits per second. ''A'' is defined as follows:

A=N * R bits/sec

where:

N=5% of registered Customers.

and

R=28,800 bits/sec per Customer.

b. OASIS Node Network Connection Bandwidth: The bandwidth ''B'' of the OASIS Node connection(s) to the Internet shall be at least:

B=2 * A bits/sec

c. Time to Meet Response Requirements: The minimum time responses shall be met within 1 month of User registration for any single new User. If more than 10 new Users register in one month, 2 months lead time shall be permitted to expand/upgrade the OASIS Note to meet the response requirements.

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 a 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 * (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 * (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.

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 Node 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.

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–1350, 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.

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 of the log.

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.

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.

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 down load these performance statistics.

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.

Appendix A—Data Element Dictionary

Version 1.2

May 27, 1998

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
AFFILIATE__FLAG	AFFLAG	1(ALPHANUMERIC)3	Valid Values YES NO	Set to YES if customer is an affiliate of the provider.
ANC__SERVICE__TYPE	ANCTYPE	1(ALPHANUMERIC)20	Valid types • EL • SP • SU • RV • RF • SC • (Registered)	EI—Energy Imbalance. EP—Spinning Reserve. SU—Supplemental Reserve. RV—Reactive supply and Voltage Control. RF—Regulation and Frequency response. SC—Scheduling, system Control and Dispatch. (Registered) must be registered with www.tsin.com and listed in the ANCSERV template.
NAC__SVC__LINK	ANCSVCLI-NK.	1(ALPHANUMERIC)300	Formatted string as follows: SC:(AA); RV: (AA); RF: (AA[:xxx[:yyy[:nnn]]]); EL: (AA[:xxx[:yyy[:nnn]]]); SP: (AA[:xxx[:yyy[:nnn]]]); SU: (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 formated string: SC:(AA); RV:(AA); RI:[:xxx[:yyy[:nnn]]]); EI: (AA[:xxx[:yyy[:nnn]]]); SP:(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 ''FI'', in which case the ':'' character must be present and precede the ''FI'' type. If multiple ''AA'' terms are necessary, then each ''AA'' grouping will be enclosed within parenthesis, with the overall group subordinate to the ANC__SVC__TYPE: specified within parenthesis. and where xxx represents either: —''FT'' to indicate that the Customer will determine ancillary services at a future time, or —''SI'' to indicate tht the Customer will self-provide the ancillary services, or —''RQ'' to indicate that the Customer is asking the OASIS to initiate the proecess 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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
				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
ANC__SVC__REQ	ANCSVCREQ.	1(ALPHANUMERIC)100	EI: (M.R.O.U); SP; (M.R.O.U);. SU: (M.R.O.U); RV: (M.R.O.U): RE: (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 ANC__SERVICE__TYPE), where the letters mean the following: (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 know at this time.
ALTERNATE__SERVICE__FLAG.	ALTSVCFLG	2(ALPHANUMERIC)3	Defaulted to ''YES''	Used as a flag to identify this reservation as a NON-FIRM use of FIRM transmission services on an alternate point of delivery.
ASSIGNMENTU__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.
BID__PRICE	BIDPR	1(NUMERIC)5 +'','' + 2(NUMERIC)12.	Positive number with 2 decimals.	The current bid price of a Service in dollars and cents. Used by Customers to designate a price being bid.
CAPACITY	CAP	1(NUMERIC)12	Non-negative 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__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__SCHEDULED	CAPSCH	1(NUMERIC)12	Non-negative number in units of MW.	Transfer capability scheduled on each path.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
CATEGORY	CAT	1(ALPHANUMERIC)25	Valid name from CATEGORY in LIST Template.	A name to be used to categorize messages. Valid names would include: *Disocunt, Want-Ad, Curtailment, Outage, Oasis Maint Notice.*
CEILING__PRICE	CEILPR	1(NUMERIC)5 + ''.'' + 2(NUMERIC)2.	Positive number with 2 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 surrounded with A and separated by commas. Limited to valid Template element names. Must use full element name and not alias.	Example: COLUMN__HEADER= APATH__NAME'', ''POINT__OF__RECEIPT'', POINT__OF__DELIVERY'', ''SOURCE'', ''SINK''.
CONTINUATION__FLAG	CONT	1(ALPHANUMERIC)1	''Y'' OR ''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	1(ALPHANUMERIC)80	Free form text	Customer options, if any, to avoid curtailment.
CURTAILMENT__PROCEDURES.	CURPROC	1(ALPHANUMERIC)80	Free form text	Curtailment procedures to be followed in the event of a curtailment.
CURTAILMENT__REASON	CURREAS	1(ALPHANUMERIC)80	Free form text	Reason for curtailment of service.
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	1(ALPHANUMERIC)80	Free-form text	Informative text.
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	CUSTEFAX	14(ALPHANUMERIC)20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn.	Fax phone number of Customer contract person.
CUSTOMER__NAME	CUSTNAME	1(ALPHANUMERIC)25	Free form text	Name of Customer contract 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	TIMEEFCT	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.
DATE__TIME__POSTED	TIMEPSTD	16(ALPHANUMERIC)16	Valid date and time in seconds yyyy+mo+dd+hh +mm+ss+tz.	Date and time to seconds a message or service offered was posted.
DEAL__REF	DREF	1(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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
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.
FORMER__COMPANY	FORMCO	1(ALPHANUMERIC)25	Free form text	Former company of the person who is transferring.
FORMER__DEPARTMENT	FORMDEPT	1(ALPHANUMERIC)25	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.
INTERFACE__TYPE	INTERFACE	1(ALPHANUMERIC)1	I,E	Type of interface define by path: Internal (I) to a control area or External (E) to a control area.
LIST__ITEM	ITEM	1(ALPHANUMERIC)50	Free form text	Item from list, such as list of SELLERs, list of PATHs, list of PORs, list of PODs, Lists of SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, NERC__CURTAILMENT__PRIORITY, OTHER__CURTAILMENT__ PRIORITY, SERVICE__INCREMENT, CATEGORY List of TEMPLATEs.
LIST__ITEM__ DESCRIPTION.	ITEMDESC	0(ALPHANUMERIC)100	Free form text	A detailed description of the LIST__ITEM.
LIST__NAME	LIST	1(alphanumeric)25	LIST, SELLER, PATH, POR, POD, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, ANCILLARY__SERVICE__TYPE, 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.
NEGOTIATED__PRICE__FLAG.	NGPRIFLG	1(ALPHANUMERIC)1	H, L, or blank	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.
NERC__CURTAILMENT__ PRIORITY.	NERCURT	1(NUMERIC)1	Integer 1–7	One of the NERC seven curtailment priorities, documented in LIST templat.
NEW__COMPANY	NEWCO	1(ALPHANUMERIC)25	Free form text	New company of the person who is transferring.
NEW__DATA	NEWDATA	1(ALPHANUMERIC)200	Any valid date element value.	For audit log, the new updated value of a Template data element after update.
NEW__DEPARTMENT	NEWDEPT	1(ALPHANUMERIC)25	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)2.	Positive number with 2 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	16(ALPHANUMERIC)16	Valid Date and Time to seconds: yyy+mo+dd+hh+mmm+ss+tz.	Start time of the window during which a Customer may request a discounted offer.
OFFER__ STOP__TIME	OFFSPTIME	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).
OLD__DATA	OLDDATA	1(ALPHANUMERIC)200	Any valid data element value.	For audit log, the old value of a Template data element prior to being updated. This element is not applicable in the audit log for transaction events.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
OPTIONAL__CODE	N/A	0(ALPHANUMERIC)25	Unique path name within region.	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. Used by PATH__NAME.
OTHER__CURTAILMENT __PRIORITY.	OTHCUR	0(ALPHANUMERIC)8	Free form tect	Other than NERC curtailment priorities, such as regional curtailment priorities. Suggested format region+number, for example MAPP4, WSCC7. Documented in LIST template.
OUTPUT__FORMAT	FMT	4(ALPHANUMERIC)4	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.
PATH__NAME	PATH	5(ALPHANUMERIC)50	Unique value	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. 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: 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.
POINT__ OF__DELIVERY	POD	1(ALPHANUMERIC)12	Unique value within Primary Provider.	Point of Delivery is 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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
POINT__OF __RECEIPT	POR	1(ALPHANUMERIC)12	Unique value within Primary Provider.	Point of Receipt is 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.
POSTING__NAME	POSTNAME	1(ALPHANUMERIC)25	Free form text	Name of person who is posting the information on the OASIS.
POSTING__REF	POSTREF	1(ALPHANUMERIC)12	Unique Value	Assigned by TSIP when Service or Message is received by TSIP. Unique number can be used by the user to modify or delete the posting.
PRECONFIRMED	PRECONF	2(ALPHA)3	YES or 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	1(ALPHA)20	Free form text	The units used for CEILING__PRICE, OFFER__PRICE, and BID__PRICE. Examples: $/MWhr, $/MWmonth
PRIMARY__ PROVIDER__COMMENTS.	PPROVCOM	1(ALPHANUMERIC)80	Free form text	Informative text. Usually entered by the Primary Provider through a back end system.
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__DUNS.	PPROV-DUNS	9(NUMERIC)9	Valid DUNS number	Unique code for each Primary. Provided by Dun and Bradstreet.
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	When customer makes a purchase of a transmission service that was posted for resale and a new ASSIGNMENT__REF number is issued the previous ASSIGNMENT__REF number now becomes the REASSIGNMENT__REF. Also used by SELLER when posting transmission or ancillary services for resale to show the previous assignment reference number. Also used by the customer when making a request to use FIRM service as NON-FIRM over alternate points of delivery.
REASSIGNED__START__TIME.	RESSTIME	16(ALPHANUMERIC)16	Valid date and time to seconds: yyy+mo+dd+hh+tz	Beginning date and time of the reassigned transmission service.
REASSIGNED__STOP__TIME.	RESSPIME	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	REC-STATUS	1(NUMERIC)3	Error number	Record status indicating record was successful or error code if unsuccessful. 200=Successful

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: E—ECAR. I—MAIN. S—SERC. T—ERCOT. A—MAPP. P—SPP. M—MAAC. N—NPCC. W—WSCC. Second character or digit reserved for subregion id as defined by each region.
REQUEST__REF	RREF	1(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.
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__NAME.	PARTNAME	1(ALPHANUMERIC)25	Free form text	The name of the person responsible for granting the discretion.
RETURN__TZ	TZ	2(ALPHANUMERIC)2	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.
SALE__REF	SREF	1(ALPHANUMERIC)12	Unique value	Identifier which is set by seller (including Primary Provider) when posting a service for sale.
SELLER__CODE	SELLER	1(ALPHANUMERIC)6	Unique value	Organization name of Primary Provider or Reseller.
SELLER__COMMENTS	SELCOM	1(ALPHANUMERIC)80	Free form text	Informative text provided by the Seller.
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.
SERVICE__INCREMENT	SRVINCR	1[ALPHANUMERIC]8	Valid increments • 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.
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.
SERVICE__DESCRIPTION	SVCDESC	1[ALPHANUMERIC]200	Free-form text	Information regarding a service.
SERVICE__NAME	SVCNAME	1[ALPHANUMERIC]25	Free-form text	Name of service affected by the discretionary action.
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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
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__ISSUE.	STDISSUE	0[ALPHANUMERIC]200	Free-form text	Issues that were in violation of the FERC Standards of Conduct.
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.
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 field (QUEUED, RECEIVED, STUDY, REBID, OFFER, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, DISPLACED, ANNULLED, RETRACTED).	QUEUED=initial status assigned by TSP on receipt of ''customer capacity purchase request''. RECEIVED=reassigned by TP to acknowledge QUEUED requests and indicate the service request is being evaluated. STUDY=assigned by TP to indicate some level of study is required or being performed to evaluate service request. OFFER=assigned by TP to indicate that a OFFER__PRICE is being proposed. REBID=assigned by TC to indicate a new BID__PRICE is being proposed. ACCEPTED=assigned by TP to indicate service request has been approved/accepted. If the reservation request was submitted PRECONFIRMED, OASIS 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. REFUSED=assigned by TP to indicate service request has been denied, SELLER__COMMENTS should be used to communicate reason for denial of service. CONFIRMED=assigned by TC in response to TP posting ''ACCEPTED'' status to confirm service. WITHDRAWN=assigned by TC at any point in request evaluation to withdraw the request from any further action.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
				DISPLACED=assigned by TP when a ''CONFIRMED'' request from a TC is displaced by a longer term request and the TC has exercised right of first refusal (i.e. refused to match T&Cs of new request). ANNULLED=assigned by TP when, by mutual agreement with the TC, the transaction is to be voided. RETRACTED=assigned by TP when the TC fails to confirm or withdraw the transaction within the required time period.
STATUS__COMMENTS	STACOM	1(ALPHANUMERIC)80	Free form text	Informative text.
STATUS__NOTIFICATION	STATNOT	1(ALPHANUMERIC)200	http://URL:portnumber/director y/cgi script/query parameters or Mailto: <e-mail address.>.	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, or mailto and email address for the status information the Customer wants to receive upon a change in STATUS of transstatus, or ancstatus.
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 Template 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	STPTIMEP	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	1(ALPHANUMERIC)80	Free form text	Informative text used to summarize a topic in a message.
TARIFF__REFERENCE	TARIFF	1(ALPHANUMERIC)150	Free form text. Name and description of Tariff.	Tariffs approved by FERC.
TEMPLATE	TEMPL	1(ALPHANUMERIC)20	Valid Name of Template from Section 4.3 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.
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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
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.
TS__CLASS	TSCLASS	1(ALPHANUMERIC)20	Valid classes: • FIRM • NON-FIRM • TTC • (Registered)	The transmission service classes provided. Three are predefined, while additional classes can be used if they are registered on TSIN.COM and shown in the Provider's LIST template page.
TS__PERIOD	TSPER	1(ALPHANUMERIC)20	Valid periods: ON__PEAK OFF__PEAK FULL__PERIOD (Registered)	The transmission service periods provided. Three are predefined, while additional periods can be used if they are registered on TSIN.COM and shown in the Provider's LIST template.
TS__SUBCLASS	TSSUBC	1(ALPHANUMERIC)20	Free form	The transmission service subclasses provided. These are free form.
TS__TYPE	TSTYPE	1(ALPHANUMERIC)20	Valid periods: • POINT__TO__POINT • NETWORK • (Registered)	The transmission service types provided. Two are predefined, while additional types can be used if they are registered on TSIN.COM and shown in the Provider's LIST template.
TS__WINDOW	TSWIND	1(ALPHANUMERIC)20	Valid periods: • FIXED • SLIDING • (Registered)	The transmission service windows provided. Two are predefined, 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 time zone and indication whether daylight savings time is to be used.	Time zones: Atlantic time=AD, AS. Eastern time=ED, ES. Central time=CD, CS. Mountain time=MD, MS. Pacific time=PD, PS. Universal time=UT.
VALID__FROM__TIME	VALFTIME	16(ALPHANUMERIC)16	Valid time and date 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.

Note: This attachment will not appear in the Code of Federal Regulations.

Attachment 3—Standards and Communication Protocols for Open Access Same-Time Information System (OASIS) (With Revisions to OASIS How Working Group's September 23, 1997 Submittal Highlighted)

Version 1.2

May 27, 1998

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Appendix A—Data Element Dictionary

1. Introduction

1.1 Definition of Terms

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

a. *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.

b. *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.

c. *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.

d. *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. (This is the same term as is used in Part 35.3).

e. *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. (This is the same term as is used in Part 35.3).

f. *Secondary Transmission Provider (ST, Reseller, or Secondary Provider)* is any Customer who offers to sell transmission capacity it has purchased. (This is the same as Reseller in Part 37).

g. *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 of Part 37. (This is the same as Responsible Party in Part 37).

h. *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.

2. Network Architecture Requirements

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 which 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 Standards of Conduct in Part 37.

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.

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 4.

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).

2.3 Communication Standards Required

a. 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) (reference RFC 1055) shall be supported for private internet network dial-up connections.

c. 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), Version 1.0 (RFC 1945), shall be supported by User's web browsers so they can use it to select information for viewing displays and for downloading and uploading filed 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.

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. Hypertext Markup Language (HTML), at least Version 3.2 shall be used by supported by User's browsers as a standard tool for viewing information.

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

c. 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) is recommended but not required to provide tools for operating and managing in network. If private interconnections between OASIS Nodes are established.

e. 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).

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.

3. Information Access Requirements

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.

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.

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. This 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 (such as fetch__http) 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.

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. 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, an HTML web page, linked to the 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 Nod.

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 non-TS Information, such as Want-Ads, may be posted by providers and Customers, 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.

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.

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 which 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 request is processed by the Seller of the service, possibly off-line from the OASIS Node, and the status is updated accordingly.

If a purchase request is approved by the Seller, then it must be again conformed by the Customer. 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.

4. Interface Requirements

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 which 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 Appendix A.

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 which 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.

4.2 OASIS Node Conventions and Structures

4.2.1 OASIS Node Naming Requirements

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

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.

4.2.1.2 OASIS Node and Primary Provider Home Directory

The home directory name on an OASIS Node shall be ''OASIS'' 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)

Where:

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

(PRIMARY__PROVIDER__CODE) 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.

4.2.1.3 CGI Script Names

Common Gateway Interface (CGI) scripts shall be located in the directory ''data'' as follows:

http://(OASIS Node name)/OASIS/(PRIMARY__PROVIDER__CODE/data/(cgi script name)?(query variables)

Where:

(cgi script name) is the OASIS Template name (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.wxy.com/oasis/wxyz/data/schedule ?templ=schedule& ver=1.2&fmt=data & stime=19960412040000PD &sptime=19960412100000PD& pprov=wxyz

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.html datadict.txt)

Where:

datadic.html is the HTML version of the data element dictionary

datadic.txt is the ASCII text version of the data element dictionary

The Data Element Dictionary is defined in Appendix A.

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 which 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.

4.2.3 OASIS Template Constructs

4.2.3.1 Template Construction

Section 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, 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. 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 which can be downloaded electronically. In order to meet the ''User-Friendly'' goal and permit the flexibility of the OASIS to expand to meet new requirements, the OASIS Templates shall be as self-descriptive as possible.

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 OASIS. Each query/response Template accepts a set of user specified Query Variables and returns the appropriate information from data posted on OASIS 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 OASIS. The required input information and information to be returned in response are identified by Data Element in Section 4.3, Template Descriptions.

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 OASIS:

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 OASIS implemented HTML screens 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.

4.2.4 Query/Response Template Requirements

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

4.2.4.1 Query Requirements

Query information is transferred to OASIS 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 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 reasons. 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 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 OASIS 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 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.

Using 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.

4.2.4.2 Response Requirements

In response to a validly formatted Query for each Query/Response OASIS Template, the OASIS 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 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).'

4.2.5 Input/Response Template Requirements

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

4.2.5.1 Input Requirements

Input information is transferred to OASIS 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 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 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 OASIS 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 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.

4.2.5.2 Response to Input

In response to a validly formatted Input for each Input/Response OASIS Template, the OASIS shall return an indication as to the success/failure of the requested action. The OASIS 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 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/x-oasis-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.

4.2.6 Query Variables

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 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 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.

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

All standard header Query Variables with appropriate values must be entered by the User.

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)

4.2.6.4 Multiple Instances

Certain Query Variables may be repeated in a given Query/Response OASIS Template query string. Where such multiple instances are documented in the Template definitions using an asterix (*) after the query variable. When more than one instance of the Query Variable is specified in the query string, OASIS 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 asterix (*).

4.2.6.5. Logical Operations

OASIS shall use the following logical operations when processing Query Variables for Query/Response OASIS Templates. 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.'' Multiple instances of the 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.

4.2.6.6 Handling of Time Data Elements

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 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''.

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 to return to the User all requested information whose associated data element time value falls within the specified time interval.

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 handed by OASIS 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, 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 form 00:00 January 1, 1997, to 00:00 February 1, 1997. This would include offerings that (1) started prior to Jan. 1. stopped any time on or after Jan. 1, and (2) started on or after Jan. 1 but before Feb. 1

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.

All time values shall be checked upon input to ensure their validity with respect to date, time, time zone, and daylight savings time.

4.2.6.7 Default Values

Query Variable 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.

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.

4.2.7 CSV Format

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 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.

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=nn.n¬
TEMPLATE=aaaaaaaaaa¬
OUTPUT__FORMAT=[DATA]¬
PRIMARY__PROVIDER__CODE=aaaa¬
PRIMARY__PROVIDER__DUNS=nnnnnnnnn¬
RETURN__TZ=aa¬
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.

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 shall respond with the following standard response header records for all OASIS Templates:

REQUEST__STATUS=nnn¬
ERROR__MESSAGE=aaa...¬
TIME__STAMP=yyyymmddhhmmsstz¬
VERSION=nn.n¬
TEMPLATE=aaaaaaaaaa¬
OUTPUT__FORMAT=DATA¬
PRIMARY__PROVIDER__CODE=aaaa¬
PRIMARY__PROVIDER__DUNS=nnnnnnnnn¬
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 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.

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 as single data record per message shall be handled in exactly the same fashion as sending a single CVS 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.

a. 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., ..., “ ”, ...).

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 a ‘‘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. Any values corresponding to COLUMN__HEADERs other than those explicitly allowed for a particular Template shall be ignored. However commas must be included to properly align the fields.

4.2.7.6 Error Handling in CSV-Formatted Responses

Validity of each record in the CVS-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.

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 section 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 any value other than 200, and the ERROR__MESSAGE shall be set to an appropriate text message to indicate the source of the error.

The OASIS node shall validate all Input records before returning a Response to the User. All valid records shall be processed by the node, while invalid records shall be identified as erroneous through he use of RECORD__STATUS and ERROR__MESSAGE. The User must correct the invalid fields and resubmit only those records which 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.

4.2.8 Registration Information

4.2.8.1 General

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

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 STATUS to the 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 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 posts other than port 80.

4.2.8.3 User Information

With the exception of ''read-only'' (visitor) access, OASIS nodes shall as 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, 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.

4.2.9 Representation of Time

4.2.9.1 General

It is critical that all Users of OASIS have a clear and unambiguous representation of time associated with all information transferred to/from OASIS. For this reason, all Data Elements associated with time in OASIS 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 for the representation of time on User entries (Query and Input) and output (Response) Templates.

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 to 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 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 shall verify that daylight savings time is in effect for the date/time specified.

If daylight savings time (as specified by the time from 2:00 a.m. on the first Sunday of April through 2:00 a.m. 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 for conversion to all other time zones. The input of start/stop times for transactions spanning the crossover day between standard and daylight (and vice 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.

4.2.9.3 Output (Response) Time

The OASIS 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 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 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.

4.2.10 Transaction Process

4.2.10.1 Purchase Transactions

Customers shall purchase services from the Seller using the following steps (see Exhibit 4–1):

a. The Templates (transrequest and ancrequest) shall be used by a Customer to enter a request for specific transmission services from a specific Seller. The Customer may enter a BID__PRICE which is different from the OFFER__PRICE in order to try to negotiate a lower price. The OASIS sets the initial STATUS of the request to QUEUED. The Customer may set the STATUS__NOTIFICATION to indicate that the OASIS must notify the Customer on any change of STATUS of transstatus (see Dynamic Notification). Prior to or commensurate with a Seller's setting of a preconfirmed reservation request's STATUS to ACCEPTED (and by implication CONFIRMED), the Seller must set OFFER__PRICE equal to the value of BID__PRICE as established by the Customer on submission of the request.

b. The Templates (transstatus and ancstatus) shall be used by Customers and Sellers to monitor the status of their transactions in progress. These Templates shall also be used by any Users to review the status of any transactions. The NEGOTIATED__PRICE__FLAG data element is set when the Seller agrees to a BID__PRICE (by setting OFFER__PRICE equal to BID__PRICE) that is different from the previously posted price. It will show ''higher'' when OFFER__PRICE is higher than the posted price, and ''lower'' when the OFFER__PRICE is lower than the posted price.

c. The Templates (transsell and ancsell) shall be used by a Seller both to set a new value into STATUS and to negotiate a price by entering a new OFFER__PRICE which is different from the BID__PRICE entered by the Customer in the transrequest Template (if it was not PRECONFIRMED). During these negotiations, a Reseller shall formally indicate the approval or disapproval of a transaction and indicate which rights from prior confirmed reservations are to be reassigned. A Primary Provider may, but is not required, to enter transaction approval or disapproval using this Template. The valid STATUS values which may be set by a Seller are: RECEIVED, STUDY, OFFER, ACCEPTED, REFUSED, DISPLACED, ANNULLED, or RETRACTED.

d. The Customer shall use the transstatus and ancstatus Templates to view the Seller's new offer price and/or approval/disapproval decision.

e. After receiving notification of the transaction's STATUS being set to ''OFFER'' by the Seller, the Templates (*transcust* and *anccust*) shall be used by the Customer to modify the BID__PRICE and set the STATUS to REBID. After negotiations are complete (STATUS set to ''ACCEPTED'' by the Seller), the Customer shall formally enter the confirmation or withdrawal of the offer to purchase services for the OFFER__PRICE shown in the *transstatus* Template. The valid STATUS values which a Customer may set are: REBID, CONFIRMED, or WITHDRAWN.

f. The Seller shall use the *transstatus (ancstatus)* Templates to view the Customer's new bid price and/or confirmation/withdrawal decision, again responding through *transsell* or *ancsell* if necessary. If the Seller offers to sell a service at an OFFER__PRICE less than that posted in the *transoffering (ancoffering)* Template, the *transoffering (ancoffering)* Template must be updated to reflect the new OFFER__PRICE.

g. For deals consummated off the OASIS by a Seller, after the Customer has accepted the offering, the Templates (*transassign* and *ancassign*) may be used by the Seller to notify the Primary Provider of the transfer of rights to the Customer. Continuation records may be used to indicate the reassigning of rights for a ''profile'' of different assignments and different capacities over different time periods.

h. The source of all user and seller contact information shall be the User registration process. Therefore, it shall not be input as part of uploads, but shall be provided as part of all transaction downloads.

i. OASIS shall accept a seller initiated change in STATUS to ACCEPTED only when OFFER__PRICE matched BID__PRICE (i.e., seller must set OFFER__PRICE equal to BID__PRICE prior to or coincident with setting STATUS to accepted).

j. OASIS shall accept a customer initiated change in STATUS to CONFIRMED only when BID__PRICE matches OFFER__PRICE (i.e., customer must set BID__PRICE equal to OFFER__PRICE prior to or coincident with setting STATUS to confirmed).

4.2.10.2 Status Values

The possible STATUS values are:

QUEUED=initial status assigned by TSIP on receipt of ''customer services purchase request''

RECEIVED=assigned by TP to acknowledge QUEUED requests and indicate the service request is being evaluated, including for completing the required ancillary services

STUDY=assigned by TP to indicate some level of study is required or being performed to evaluate service request

OFFER=assigned by TP to indicate that a new OFFER__PRICE is being proposed

REBID=assigned by TC to indicate that a new BID__PRICE is being proposed

ACCEPTED=assigned by TP to indicate service request at the designated OFFER__PRICE has been approved/accepted. If the reservation request was submitted PRECONFIRMED, OASIS 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.

REFUSED=assigned by TP to indicate service request has been denied, SELLER__COMMENTS should be used to communicate reason for denial of service

CONFIRMED=assigned by TC in response to TP posting ''ACCEPTED'' status, to confirm service. Once a request has been ''CONFIRMED'', a transmission service reservation exists

WITHDRAWN=assigned by TC at any point in request evaluation to withdraw the request from any further action

DISPLACED=assigned by TP when a ''CONFIRMED'' reservation from a TC is displaced by a longer term request and the TC has exercised right of first refusal (i.e., refused to match terms of new request)

ANNULLED=assigned by TP when, by mutual agreement with the TC, a confirmed reservation is to be voided.

RETRACTED=assigned by TP when the TC fails to confirm or withdraw the request within the required time period

BILLING CODE 6717–01–M

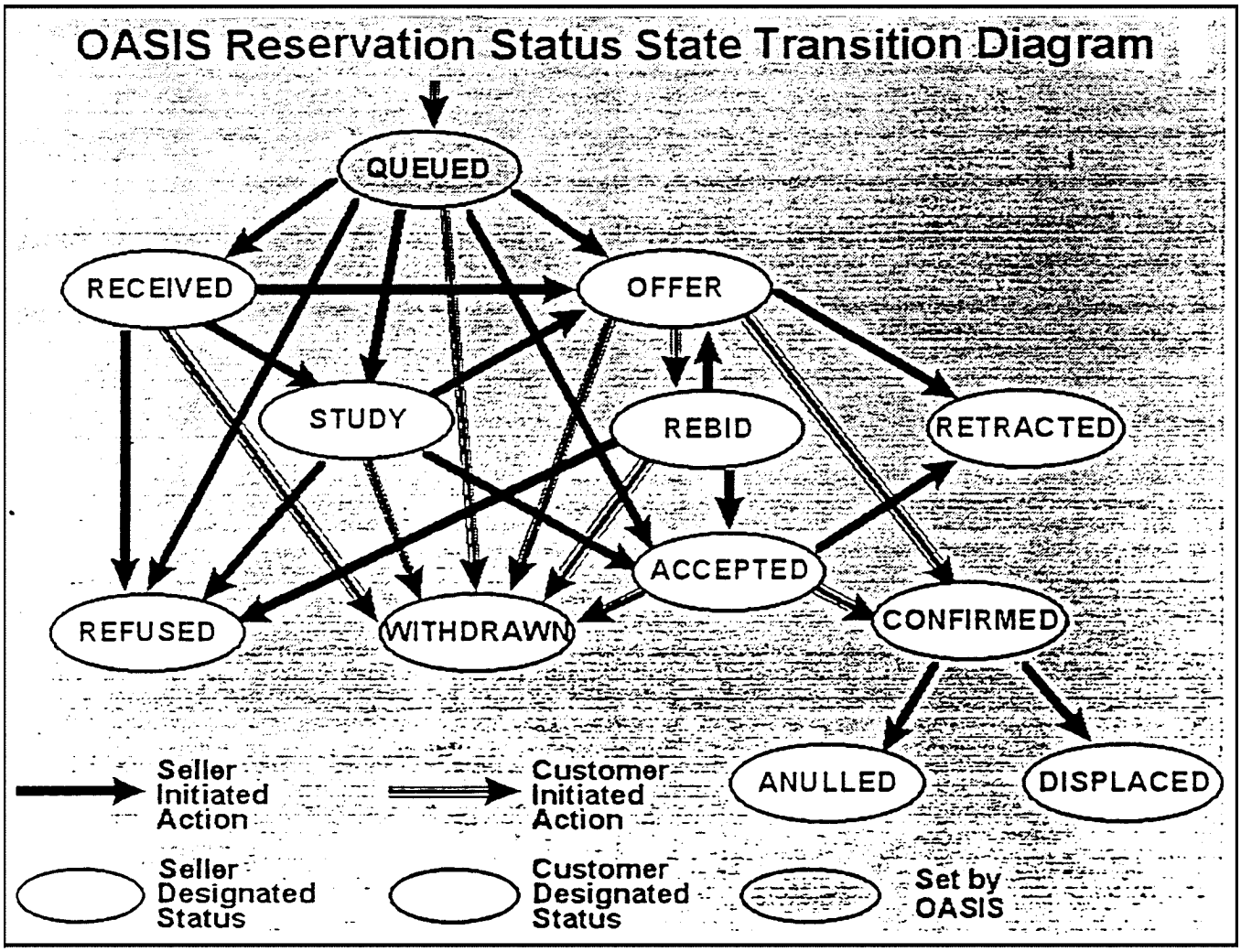

Exhibit 4-1 - State Diagram of Purchase Transactions

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4.2.10.3 Dynamic Notification

Customer's may specify the delivery of dynamic notification messages on each change in STATUS of an ancillary or transmission service reservation. OASIS 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 remain the User's 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 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 to that Company as SELLER via either the ''transrequest'' or ''ancrequest'' templates, or on submission of any change in request STATUS 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.

4.2.10.3.1 HTTP Notification

OASIS 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. OASIS 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 the 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'', OASIS 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://oasistic.xyz.com:80

The contents of the HTTP protocol notification message delivered by OASIS 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 GET method request. In addition to the GET method HTTP header record, OASIS 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 shall use a Primary Provider specific default value for RETURN__TZ in formulating 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.

GET http://oasistc.xyz.com:80/cgi-bin/status?DEAL__REF=8&REQUEST__REF=173 HTTP/1.0
Content-type: text/x-oasis-civ
Content-length:<byte count of remainder of message≤
REQUEST__STATUS=200
TIME__STAMP=<appropriate value≤
VERSION=1.2
TEMPLATE=transstatus
OUTPUT__FORMAT=DATA
PRIMARY__PROVIDER__CODE=ABC
PRIMARY__PROVIDER__DUNS=123456789
RETURN__TZ=<appropriate value for ABC≤
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 shall retry up to two more times, once every 5 minutes.

4.2.10.3.2 E-mail Notification

OASIS 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 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 shall use a Primary Provider specific default value for RETURN__TZ in formulating the transstatus response information.

4.2.11 Reference Identifiers

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 the service is resold, a new ASSIGNMENT__REF number is assigned, but previous ASSIGNMENT__REF numbers are also kept so that a chain of all transactions related to the service can be maintained.

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 OASIS. This identifier shall be referenced by the Seller in any/all subsequent template submissions which would result in a modification to or deletion of that specific offering or message. 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.

Sellers may aggregate portions of several previous transmission service reservations to create a new offering to be posted on OASIS. 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 OASIS (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.

Sellers may identify their service offerings received from customers through the Seller supplied value specified for the SALE__REF data element.

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.

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 describe din 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 Proformad ancillary services 1 through 6 (or more) as follows:

SC:(AA); RV:(AA); 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 ANC__SVC__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 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 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 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.

Examples:

Example 1:

Assume ancillary services SC and RV are mandatory from the TP, 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 TP, 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 TP, 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:AR:39843) SP:(SANC:AR:39843); SU:(SANC:AR:39843)''

Example 4:

Assume ancillary services SC and RV are mandatory from the TP, 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 TP, 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 mw's'' from this seller. In this case the OASIS reservation number 8763 will be deplete in the amount of ''40 mw's'' 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))''

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 the Data Element Dictionary in Appendix A.

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.

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 Schedules and Curtailments	Query/Response Transmission Schedules	schedule
	Query/Response Curtailments	curtail
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 Query/Response of Audit Log	Query/Response Audit Log	auditlog
4.3.7 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
	Alternate POD/POR	transalt
	Seller Reassign Rights (Input)	transassign
4.3.8 Seller Posting of Transmission Service	Seller Post Transmission Service for Sale (Input)	transpost
	Seller Modify (Remove) Transmission Service for Sale (Input)	transupdate
4.3.9 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
4.3.10 Seller Post Ancillary Service	Seller Post Ancillary Service (Input)	ancpost
	Seller Modify (Remove) Ancillary Service for Sale (Input)	ancupdate
4.3.11 Informal Messages	Post Want Ads (Input)	messagepost
	Query/Response Want Ads	message
	Delete Want Ad (Input)	messagedelete
	Discretion	discretion
	Standards of Conduct	stdconduct

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 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 Variable, 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 asterix (*) 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 post OFFER__PRICE. START__TIME and STOP__TIME indicate the time frame that the service is being offered for.

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 ancsery templates.

SERVICE__DESCRIPTION shall be null if there are no unique attributes or terms associated with the offering.

4.3.2.1 Transmission Capacity Offerings Available for Purchase (transoffering)

Transmission Services Offerings Available for Purchase (transoffering) is used to offer transmission services that are posted for sale by the Primary Provider or Resellers. At a minimum this Template must be used to post TTC and each increment and type of service required by applicable regulations and the Primary Provider's tariffs.

This Templates must include, for each posted path, the Primary Provider's TTC, firm ATC and non-firm ATC, as required by FERC orders 888 and 889 (plus revisions) and/or if provided in the Primary Provider's tariff. Additional transmission services may be offered with the same Template.

The POSTING__REF is set by the TSIP when an offering is posted and can be used in transrequests 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*
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 Templates 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
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__DESCRITION (if null, then look at transserv)
NERC__CURTAILMENT__PRIORITY
OTHER__CURTAIMENT__PRIORITY
SELLER__NAME
SELLER__PHONE
SELLER__FAX
SELLER__EMAIL
SELLER__COMMENTS

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*
ANC__SERVICE__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
ANCILLARY__SERVICE__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

4.3.3. Query/Response of Services Information

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__CURTAIMENT__PRIORITY, and OTHER__CURTAIMENT__PRIORITY that are available for sale for 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__CURTIMENT__PRIORITY
TARIFF__REFERENCE

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
ANC__SERVICE__TYPE
CEILING__PRICE
PRICE__UNITS
SERVICE__DESCRIPTION
TARIFF__REFERENCE

4.3.4 Query/Response of Schedules and Curtailments

4.3.4.1 Hourly Schedule (schedule)

Hourly Schedule (schedule) is used to show what a Provider's scheduled transmission capacity usage actually was for specific Paths. All the information provided is derived from that in the transmission reservation (see Template transstatus), except CAPACITY__SCHEDULED, which is the amount of the reservation which was scheduled. Posting of the schedules is organized around the transmission reservations, not the energy schedules. This may require the Primary Provider to map schedules back to the reservation. These records would have to be created for all reservations/schedules done off the OASIS during the operations scheduling period.

Template: schedule

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*
START__TIME
STOP__TIME
TIME__OF__LAST__UPDATE
ASSIGNMENT__REF

2. Response

TIME__OF__LAST__UPDATE
SELLER__CODE
SELLER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
CUSTOMER__CODE
CUSTOMER__DUNS
AFFILIATE__FLAG
START__TIME (start time of schedule)
STOP__TIME (stop time of schedule)
CAPACITY (reserved)
CAPACITY__SCHEDULED (total of energy scheduled for this customer for this reservation for this hour)
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__WINDOW
TS__SUBCLASS
NERC__CURTAILMENT__PRIORITY
OTHER__CURTAILMENT__PRIORITY
ASSIGNMENT__REF (Last rights holder)

4.3.4.2 Curtailment/Interruption (curtail)

Curtailment/Interruption (curtail) provides additional information about the actual curtailment of transmission reservations that have been scheduled for energy exchange. All fields are derived from the reservation except the CAPACITY__CURTAILED, CURTAILMENT__REASON and CURTAILMENT__OPTIONS. These fields provide information on the reasons for the curtailment procedures to be followed and options for the Customer, if any, to relieve the curtailment.

Template: curtail

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*
START__TIME
STOP__TIME
TIME__OF__LAST__UPDATE
ASSIGNMENT__REF

2. Response

TIME__OF__LAST__UPDATE
SELLER__CODE
SELLER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
CUSTOMER__CODE
CUSTOMER__DUNS
AFFILIATE__FLAG
START__TIME (Start time of curtailment)
STOP__TIME (Stop time of curtailment)
CAPACITY (Capacity reserved)
CAPACITY__SCHEDULED
CAPACITY__CURTAILED
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__WINDOW
TS__SUBCLASS
NERC__CURTAILMENT__PRIORITY
OTHER__CURTAILMENT__PRIORITY
CURTAILMENT__REASON
CURTAILMENT__PROCEDURES
CURTAILMENT__OPTIONS
ASSIGNMENT__REF

4.3.5 Query/Response of Lists of Information

4.3.5.1 List (list)

List (list) is used to provide lists of valid names. The minimum set of lists is LIST, SELLER__CODEs, PATHs, PORs, PODs, SERVICE__INCREMENTs, TS__CLASSes, TS__TYPEs, TS__PERIODS, NERC__CURTAILMENT__PRIORITY, OTHER__CURTAILMENT__PRIORITY, ANCILLARY__SERVICE__TYPEs, CATEGORYs, and TEMPLATEs. These names may be used 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

4.3.6 Query/Response to Obtain the Audit log

4.3.6.1 Audit Log Information (auditlog)

Audit Log Information (auditlog) is used to provide a means of accessing the required audit information. The TSIP will maintain two types of logs:

a. Log of changes posted TS Information, such as CAPACITY. This log will record as a minimum the time of the change, the Template name, the name of the Template data element changed and the old and new values of the Template data element.

b. A complete record of all transaction events, such as those contained in the Templates 4.3.8, 4.3.9 and 4.3.10. For transaction event logs, the response will include: TIME__STAMP, TEMPLATE, ELEMENT__NAME, AND NEW__DATA. In this case the value of OLD__DATA is not applicable.

Template: auditlog

1. Query

START__TIME (search against audit log)

STOP__TIME (search against audit log)

2. Response

ASSIGNMENT__REF OR POSTING__REF
TIME__STAMP
TEMPLATE
ELEMENT__NAME (for data elements whose values have changed)
OLD__DATA

4.3.7 Purchase Transmission Service

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

4.3.7.1 Customer Capacity Purchase Request (transrequest)

The Customer Capacity Purchase Request (Input) (transrequest) is used by the Customer to request the purchase of transmission services. The resp[onse simply acknowledges that the Customer's request was received by the OASIS Node. It does not imply that the Seller has received the request. Input ting 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 services, which request different capacities 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. Only the following fields may be redefined in a continuation record for the transrequest Template: CAPACITY, BID__PRICE, START__TIME, AND STOP__TIME.

For requesting transmission services which include multiple paths, only the following fields may be redefined in a continuation record for the transrequest Template. PATH__NAME. Supporting multiple paths 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.

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
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
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

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
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__SUBCLASS
STATUS__NOTIFICATION
START__TIME
STOP__TIME
BID__PRICE
PRECONFIRMED
ANC__SVC__LINK
POSTING__REF
SALE__REF
REQUEST__REF
DEAL__REF
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.7.2 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. Transmission Providers shall make source and sink information available at the time the request status posting is updated to show that a transmission request is confirmed.

Only the following fields may be redefined in a continuation record for the transstatus response Template: PATH__NAME, CAPACITY, START__TIME, STOP__TIME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, and REASSIGNED__STOP__TIME.

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.

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*
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
SALE__REF
REQUEST__REF
DEAL__REF
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 (total reservation)
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
PRECONFIRMED
ANC__SVC__LINK
ANC__SVC__REQ
ALTERNATE__SERVICE__FLAG
POSTING__REF
SALE__REF
REQUEST__REF
DEAL__REF
NEGOTIATED__PRICE__FLAG (''L'' if Seller accepted Price is lower than OFFER__PRICE in transoffering Template; ''H'' if higher; otherwise blank)
STATUS=RECEIVED, QUEUED, STUDY, REBID, OFFER, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, DISPLACED, ANNULLED, RETRACTED
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 (Capacity from each previous transaction)
REASSIGNED__START__TIME
REASSIGNED__STOP__TIME

4.3.7.3 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.

If **preconfirmed** then Seller can only change values of data elements, STATUS, STATUS__COMMENTS, SELLER__COMMENTS, REASSIGNED__REF, NEGOTIATED__PRICE__FLAG, ANC__SRV__REQ, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, and REASSIGNED__CAPACITY. If not **preconfirmed,** then the Seller can also change OFFER__PRICE.

Only the following fields may be redefined in a continuation record for the transsell Template: REASSIGNED__CAPACITY, OFFER__PRICE, REASSIGNED__REF, REASSIGNED__START__TIME, and REASSIGNED__STOP__TIME.

SELLER__CODE and SELLER__DUNS shall be determined from the registered connection used to input the request.

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)
OFFER__PRICE
STATUS=RECEIVED, STUDY, OFFER, ACCEPTED, REFUSED, ANNULLED, RETRACTED, DISPLACED
STATUS__COMMENTS
OTHER__CURTAILMENT__PROPERTY (optional)
ANC__SVC__REQ
NEGOTIATED__PRICE__FLAG
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
OFFER__PRICE
STATUS=RECEIVED, STUDY, OFFER, ACCEPTED, REFUSED, ANNULLED, RETRACTED, DISPLACED
STATUS__COMMENTS
OTHER__CURTAILMENT__PRIORITY
ANC__SVC__REQ
NEGOTIATED__PRICE__FLAG
SELLER__COMMENTS
RESPONSE__TIME__LIMIT
REASSIGNED__REF
REASSIGNED__CAPACITY (Previous capacity to be reassigned)
REASSIGNED__START__TIME
REASSIGNED__STOP__TIME
ERROR__MESSAGE

4.3.7.4 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.

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 for each record before the STATUS can be set to CONFIRMED.

Template: transcust

1. Input

CONTINUATION__
ASSIGNMENT__REF (Required)
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS=REBID, CONFIRMED, WITHDRAWN
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
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS=REBID, CONFIRMED, WITHDRAWN
STATUS__COMMENTS
ANC__SVC__LINK
STATUS__NOTIFICATION
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.7.5 Alternate Point of Receipt/Delivery (transalt)

Alternate Point of Delivery (transalt). The Customer may submit a request to use alternate points of receipt/delivery for an existing confirmed reservation, if allowed by applicable tariffs and service agreements. The assignment reference value associated with the prior confirmed reservation must be provided in the REASSIGNED__REF data element along with the alternate points of receipt/delivery. The request may be submitted as PRECONFIRMED. Requests submitted by the transalt template shall be handled by OASIS identically to reservations submitted using the transrequest template.

CUSTOMER__CODE and CUSTOMER__DUNS shall be determined from the registered connection used to input the request.

REASSIGNED__REF contains the ASSIGNMENT__REF of the original, confirmed reservation that is being designated to the alternate points of delivery/receipt. The Template allows for only one REASSIGNED__REF field. Therefore, if multiple, original reservations are being designated, a separate transalt Template must be submitted associated with each original reservation. There is no restriction that multiple submissions of the transalt Template may all refer back to the same, original reservation (i.e., may have the same REASSIGNED__REF).

Demand profiles associated with the designation of alternate POD/POR may be submitted by additional records designating ''Y'' for CONTINUATION__FLAG, and specifying the CAPACITY, START__TIME, and STOP__TIME data elements corresponding to the MW demand being requested over each time interval associated with the reservation. The CAPACITY, START__TIME, and STOP__TIME data elements must fall within the amounts and time intervals associated with the original reservation.

The following data elements in transstatus and the appropriate ones in transcust shall take on the following implied values:

SELLER__CODE (value from SELLER__CODE in reservation designated by REASSIGNED__REF)
SELLER__DUNS (value from SELLER__DUNS in reservation designated by REASSIGNED__REF)
ALTERNATE__SERVICE__FLAG=YES
OFFER__PRICE=$0
BID__PRICE=$0
CEILING__PRICE=$0
TS__CLASS=Non-Firm (or whatever the Provider designates)
REASSIGNED__CAPACITY=MW capacity submitted in CAPACITY field of Template
REASSIGNED__START__TIME=time submitted in START__TIME field of Template
REASSIGNED__STOP__TIME=time submitted in STOP__TIME field of Template

Template: transalt

1. Input

CONTINUATION__FLAG
PATH__NAME
POINT__OF__DELIVERY
SOURCE
SINK
PRECONFIRMED
CAPACITY (Must be less than or equal to original capacity reservation)
STATUS__NOTIFICATION
START__TIME (Valid only to hour and within the time of original reservation)
STOP__TIME (Valid only to hour and within the time of original reservation)
CUSTOMER__COMMENTS

2. Response (acknowledgment)

RECORD__STATUS
CONTINUATION__FLAG
ASSIGNMENT__REF (assigned by the TSIP)
SELLER__CODE (Primary)
SELLER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
PRECONFIRMED
ALTERNATE__SERVICE__FLAG (Defaulted to YES)
CAPACITY (Capacity requested)
STATUS__NOTIFICATION
START__TIME
STOP__TIME
REQUEST__REF
DEAL__REF
REASSIGNED__REF (Assignment Reference for the Firm reservation being used for request)

4.3.7.6 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. 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, START__TIME, STOP__TIME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, and REASSIGNED__STOP__TIME.

SELLER__CODE and SELLER__DUNS shall be determined form the registered connection used to input the request.

Template: transassign

1. Input

CONTINUATION__FLAG
CUSTOMER__CODE
CUSTOMER__DUNS
PATH__NAME
POINT__OF__RECEIPT
POINT__OF__DELIVERY
SOURCE
SINK
CAPACITY
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
TS__SUBCLASS
START__TIME
STOP__TIME
OFFER__PRICE
ANC__SVCX__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

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 (Total capacity being reassigned)
SERVICE__INCREMENT
TS__CLASS
TS__TYPE
TS__PERIOD
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
ERROR__MESSAGE

4.3.8 Seller Posting of Transmission Services

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

4.3.8.1 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
OTHER__CURTAILMENT__PRIORITY (optional)
ANC__SVC__REQ
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SERVICE__DESCRIPTION
SELLER__COMMENTS

2. Response (acknowledgement)

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
OTHER__CURTAILMENT__PRIORITY
ANC__SVC__REQ
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SERVICE__DESCRIPTION
SELLER__COMMENTS
ERROR__MESSAGE

4.3.8.2 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

4.3.9 Purchase of Ancillary Services

4.3.9.1 Customer Requests to Purchase Ancillary Services (ancrequest)

Customer Requests to Purchase Ancillary Services (ancrequest) (Input, Template Upload) is used by the customer to purchase ancillary services that have been posted by a seller of those services. The same requirements exist for the use of STATUS__NOTIFICATION as for transrequest. The reference Data Elements are optional.

CUSTOMER__CODE and CUSTOMER__DUNS shall be determined from the registered connection used to input the request.

Template: ancrequest

1. Input

SELLER__CODE
SELLER__DUNS
CONTROL__AREA
CAPACITY
SERVICE__INCREMENT
ANC__SERVICE__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 (acknowledgement)

RECORD__STATUS
ASSIGNMENT__REF (assigned by TSIP)
SELLER__CODE
SELLER__DUNS
CONTROL__AREA
CAPACITY
SERVICE__INCRECMENT
ANC__SERVICE__TYPE
STATUS__NOTIFICATION
START__TIME
STOP__TIME
BID__PRICE
PRECONFIRMED
POSTING__REF
SALE__REF
REQUEST__REF
DEAL__REF
CUSTOMER__COMMENTS

ERROR__MESSAGE

4.3.9.2 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.

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
SERVICE__INCREMENT
ANC__SERVICE__TYPE
STATUS
START__TIME
STOP__TIME
START__TIME__QUEUED
STOP__TIME__QUEUED
ASSIGNMENT__REF
SALE__REF
REQUEST__REF
DEAL__REF
TIME__OF__LAST__UPDATE (only if TIME__OF__LAST__UPDATE is posted by record)

2. Response

ASSIGNMENT__REF
SELLER__CODE
SELLER__DUNS
CUSTOMER__CODE
CUSTOMER__DUNS
AFFILIATE__FLAG (Set by TSIP)
CONTROL__AREA
CAPACITY
SERVICE__INCREMENT
ANC__SERVICE__TYPE
START__TIME
STOP__TIME
CEILING__PRICE
OFFER__PRICE
BID__PRICE
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=QUEUED, RECEIVED, REBID, OFFER, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, ANNULLED, RETRACTED
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

4.3.9.3 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.

SELLER__CODE and SELLER__DUNS shall be determined from the registered connection used to input the request.

Template: ancsell

1. Input

ASSIGNMENT__REF
OFFER__PRICE
STATUS=RECEIVED, OFFER, ACCEPTED, REFUSED
STATUS__COMMENTS
SELLER__COMMENTS

2. Response (acknowledgment)

RECORD__STATUS
ASSIGNMENT__REF
OFFER__PRICE
STATUS=RECEIVED, OFFER, ACCEPTED, REFUSED
STATUS__COMMENTS
NEGOTIATED__PRICE__FLAG
RESPONSE__TIME__LIMIT
SELLER__COMMENTS
ERROR__MESSAGE

4.3.9.4 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 STATUS can 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

ASSIGNMENT__REF (Required)
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS=REBID, CONFIRMED, WITHDRAWN
STATUS__COMMENTS
STATUS__NOTIFICATION (If left blank, then the original URL from the ancrequest will be used)
CUSTOMER__COMMENTS

2. Response (Acknowledgment)

RECORD__STATUS
ASSIGNMENT__REF
REQUEST__REF
DEAL__REF
BID__PRICE
STATUS=REBID, CONFIRMED, WITHDRAWN
STATUS__COMMENTS
STATUS__NOTIFICATION
CUSTOMER__COMMENTS
ERROR__MESSAGE

4.3.10 Seller Posting of Ancillary Services

4.3.10.1 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
ANC__SERVICE__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
ANC__SERVICE__TYPE
START__TIME
STOP__TIME
OFFER__START__TIME
OFFER__STOP__TIME
SALE__REF
OFFER__PRICE
SELLER__COMMENTS
ERROR__MESSAGE

4.3.10.2 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

4.3.11 Informal Messages

4.3.11.1 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.

One CATEGORY shall be DISCOUNT. All discount prices accepted by a Customer shall be immediately posted as a message using the DISCOUNT CATEGORY. This will permit carry-over from Phase I.

CATEGORY__CODE and CUSTOMER__DUNS shall be determined from the registered connection used to input the request.

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

4.3.11.2 Message (message)

Message (message) is used to view a posted Want Ad or Informal Message. The CATEGORY data element can be queried. Specifically it shall be possible to query for the CATEGORY of DISCOUNT. This will permit carry-over from Phase 1.

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

4.3.11.3 Provider/Sellers Message Delete Request (messagedelete)

Providers/Sellers Message Delete Request (messagedelete) is used by Providers and Sellers who wish to delete their message. 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

4.3.11.4 Personnel Transfers (personnel)

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
DATE__TIME__POSTED
TIME__OF__LAST__UPDATE

4.3.11.5 Discretion (discretion)

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

4.3.11.6 Standards of Conduct (stdconduct)

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

4.4 File Request and File Download Examples

4.4.1 File Example for Hourly Offering

Example of the request to Primary Provider, aaa, and response for Seller, wxyz, for PATH__NAME ''W/AAAA/PATH__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 Phase 1A is 1.2.

The request is in the form of a URL query string and the response is a ASCII delimited file.

1. Query

http://(OASIS Node name)/OASIS/aaa/data/ transoffering? ver=1.2&templ=transoffering& fmt=data&pprov=AAAA &pprovduns= 123456789& path=W/AAA/ABC// &seller=WXYZAA &sellerduns=987654321& POR=aaa& POD=bbb& servincre=hourly& TSCLASS1=firm &TSCLASS2=non-firm&tz=PD&stime=19960410080000PD&sptime=19960410150000PD

2. Response Data

REQUEST-STATUS=200↵(Successful)

TIME__STAMP=19960409113526PD↵
VERSION=1.2↵
TEMPLATE=transoffering↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AAAA↵
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__SUBCLASS, SALE__REF, POSTING__REF, CEILING__PRICE, OFFER__PRICE, PRICE__UNITS, SERVICE__DESCRIPTION, SELLER__NAME, SELLER__PHONE, SELLER__FAX, SELLER__EMAIL, SELLER__COMMENTS↵
19960409030000PD, WXYZ, 987654321, W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD, 19960410080000PD,19960410090000PD,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A, N/A, A001, 1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD, 1960410080000PD, 19960410090000PD,300, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001.50, 1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT↵
19960409030000PD, WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD, 19960410090000PD, 1996041010000PD,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35, MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD, WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD, 19960410090000PD, 19960410100000PD,300, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35.MW, N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT↵
19960409030000PD, WXYZ. 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410100000PD,19960410110000PD,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD, WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD, 19960410100000PD, 19960410110000PD,300, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT↵
19960409030000PD, WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD,19960410110000PD,19960410120000PD,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,10% DISCOUNT↵
19960409030000PD, WXYZ, 98765321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD, 19960410110000PD,19960410120000PD,300, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT↵
. . .
. . .
. . .
19960409030000PD, WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 19960402080000PD, 19960410080000PD, 19960410140000PD,19960410150000PD,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT↵
1996040903000PD, WXYZ, 987654321,W/AAA/ABC//,N/A,N/A,E, 1996040208000PD, 19960410080000PD, 1996041014000PD,19960410150000PD,300, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A,N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT↵

4.4.2 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, 1996.

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/aaa/data/schedule? ver=1.0& pprov=AAAA& templ=schedule& fmt=data &pprovduns=123456789 &path=W/AAA/ABC//& seller=WXYZ &por=BBB &pod=CCC&tz=PD& stime=19960410100000PD& sptime=19960410150000PD

URL Request (HTTP method=POST)

$ fetch__http http://(OASIS Node name)/OASIS/aaa/data/OASISdata -f c:/OASIS/wxyz/upload/in-file.txt
Where in-file.txt contains the following:
ver=1.0& pprov=AAAA& templ=schedule& fmt=data &pprovduns=123456789 &path=W/AAA/ABC//& seller=WXYZ &por=BBB &pod=CCC& tz=PD& stime=19960410100000PD& sptime=19960410150000PD

2. Response Data

REQUEST-STATUS=200↵
TIME__STAMP=1996041014702PD↵

VERSION=1.2↵
TEMPLATE=Schedule↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AAAA↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=5↵
COLUMN__HEADERS=TIME__OF__LAST__UPDATE, SELLER__CODE, SELLER__DUNS, PATH__NAME, POINT__OF__RECEIPT, POINT__OF__DELIVERY, CUSTOMER__CODE, CUSTOMER__DUNS, AFFILIATE__FLAG, START__TIME, STOP__TIME, CAPACITY, CAPACITY__SCHEDULED, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, ASSIGNMENT__REF↵
19960409030000pd. wxyz, 0987654321,W/AAA/ABC//, BBB,CCC, WXYZAA,0987654322,Y, 19960410100000PD, 19960410110000PD,300,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A 856743↵
. . .↵
. . .↵
19960409030000pd, wxyz, 0987654321,W/AAA/ABC//,BBB,CCC, WXYZAA, 0987654322,Y, 19960410130000PD,19960410140000PD,300,300, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A. 856743↵
19960409030000pd, wxyz, 0987654321,W/AAA/ABC//,BBB, CCC,WXYZAA, 0987654322,Y, 19960410140000PD, 19960410150000PD, 303,300.HOURLY,FIRM,POINT__TO__POINT,OFF__PEAK,N/A, 856743↵

4.4.3 Customer Posting a Transmission Service Offering

This example shows how a Customer would post for sale the transmission service that was purchased perviously. 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=1.2↵
TEMPLATE=transpost↵
OUTPUT__FORMAT=DATE↵
PRIMARY__PROVIDER__CODE=AAAA↵
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__SUBCLASS, START__TIME, STOP__TIME, OFFER__START__TIME, OFFER__STOP__TIME, SALE__REF, OFFER__PRICE, SERVICE__DESCRIPTION, SELLER__COMMENTPF↵
WXYZ,987654321, W/AAA/ABC//, N/A,N/A,E,150, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A..19960402080000PD, 19960410080000PD, 19960410080000PD, 19960410150000PD, A123,.90.,N/A,‘‘‘As Joe said, ‘‘It is a good buy’’’’’↵

FETCH__HTTP Command to spend posting

$fetch__http http://(OSASIS Node name)/OASIS/abcd/data/transrequest -fc:/OASIS/abcd/upload/*post.txt*

2. Response Data

REQUEST-STATUS=200↵ (*Successful*)
TIME__STAMP=19960409113526PD↵
VERSION-1.2↵
TEMPLATE=Transport↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AAAA↵
PRIMARY__PROVIDER__DUNS=1234456789↵
DATA__ROWS=1↵
COLUMN__HEADERS=RECORD__STATUS, PATH__NAME, POINT__OF__RECEIPT, POINT__OR__DELIVERY, INTERFACE__TYPE, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__START__TIME, OFFER__STOP__TIME, SALE__REF, OFFER__PRICE, SERVICE__DESCRIPTION, SELLER__COMMENTS, ERROR__MESSAGE↵
200,WXYZ, 987654321, W/AAA/ABC//,N/A,NA,E,150, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A,19960402080000PD, 19960410080000PD, 19960410080000PD, 19960410150000PD, A123..90,N/A,‘‘As Joe said, ‘‘‘It is a good buy’’’’’, NO ERROR↵

4.4.4 Example of Re-aggregating Purchasing Services Using Reassignment

The following examples do not show the complete Template information, but only show those elements of the Template of interest to the example.

a. 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 Information Provider assigns ASSIGNMENT__REF = 5000 on acknowledgment.

b. Customer #1 purchases 120 MW ATC Non-firm for 3 p.m. to 9 p.m. for $.90 (transrequest). The Information Provider 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. 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. Customer #2 then requsts 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=''Whisle''↵
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 Information Provider provides the ASSIGNMENT__REF=5002 for this transaction.

e. Seller informs the Information Provider of the reassignment of the previous transmission rights when the seller accepts the customer purchase request (transsell).

TEMPLATE=''transsell''↵
CUSTOMER__CODE=''Whisle''↵
SELLER__CODE=''BestE''↵
ASSIGNMENT__REF=5002↵
STATUS=''Accepted''↵
REASSIGNED__REFI=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''↵

4.4.5 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 Seller 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, START__TIME, STOP__TIME. Specification of any values corresponding to COLUMN__HEADERs other than CAPACITY, START__TIME, and STOP__TIME will be ignored, however commas must be included to properly align the CAPACITY, START__TIME and STOP__TIME fields.

Input:

VERSION=1.2↵
TEMPLATE=transrequest↵

OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=7↵
COLUMN__HEADERS=CONTINUATION__FLAG, SELLER__CODE, SELLER__DUNS, PATH__NAME, POINT__OF__RECEIPT, POINT__OF__DELIVERY, SOURCE, SINK, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, STATUS__NOTIFICATION, START__TIME, STOP__TIME, BID__PRICE, PRECONFIRMED, ANC__SVC__LINK, POSTING__REF, SALE__REF, REQUEST__REF, DEAL__REF, CUSTOMER__COMMENTS↵
N. AEP, 123456789, ABC/XY, CE, MECS...35, DAILY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A,,pub/AEP/incoming, 19970423000000ES, 19970424000000ES, 24.50, Y, SC:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345), P0123, S123, R765, D123, Standard daily reservation↵
N, AEP, 123456789, ABC/XY, CE, AMPO,,,5, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A, pub/AEP/incoming, 19970423060000ES, 19970423070000ES, 2.50, Y,SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345), P0123, S123, R765, D123, First piece of profile spanning 5 records↵
Y,,,,,,,, 10,,,,,,, 19970423070000ES, 19970423080000ES,,,,,,,,Second piece↵
Y,,,,,,,, 15,,,,,,, 19970423080000ES, 19970423200000ES,,,,,,,,Third piece↵
Y,,,,,,,, 10,,,,,,, 19970423200000ES, 19970423210000ES,,,,,,,,Fourth piece↵
Y,,,,,,,, 5,,,,,,, 19970423210000ES, 19970423220000ES,,,,,,,,Fifth piece↵
N, AEP, 123456789, ABC/XY, CE, MECS,,, 20, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A, pub/AEP/incoming, 19970423040000ES, 19970423220000ES, 2.00, Y,SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345), P0123, S123, R765, D123, Standard hourly reservation after profiled reservation↵

Response:

REQUEST__STATUS=200↵
TIME__STAMP=19970422160523ES↵
TEMPLATE=transrequest↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=7↵
COLUMN__HEADERS=RECORD__STATUS, CONTINUATION__FLAG, SELLER__CODE, SELLER__DUNS, PATH__NAME, POINT__OF__RECEIPT, POINT__OF__DELIVERY, SOURCE, SINK, CAPACITY, SERVICE__INCREMENT, TS__TYPE, TS__PERIOD, TS__SUBLCASS, STATUS__NOTIFICATION, START__TIME, STOP__TIME, BID__PRICE, PRECONFIRMED, ANC__SVC__LINK, POSTING__REF, SALE__REF, REQUEST__REF, DEAL__REF, CUSTOMER__COMMENTS, ERROR__MESSAGE↵
200, N, AEP, 123456789, ABC/XY, CE, MECS,,,35, DAILY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A, pub/AEP/incoming, 199702423000000ES, 19970424000000ES, 24.50, Y,SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R123); SP:(custR234); SU:(cust:R345), PO123, S123, R765, D123, Standard daily reservation, No error↵
200, N, AEP, 123456789, ABC/XY, CE, AMPO,,,5, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A, pub/AEP/incoming, 199702423060000ES, 19970423070000ES, 2.50, Y,SC:(cust:SP); RV:(cust:SP);RF(cust:RQ);EI:(cust:R123); SP:(custR234); SU;(cust:R345), P0123, S123, R765, D123, First piece of profile spanning 5 records, No error↵
200, Y,,,,,,,, 10,,,,,,,19970423070000ES, 19970423080000ES,,,,,,,,Second piece, No error↵
200, Y,,,,,,,, 15,,,,,,,19970423080000ES, 199704232800000ES,,,,,,,,Third piece, No error↵
200, Y,,,,,,,, 10,,,,,,,19970423200000ES, 19970423210000ES,,,,,,,,Fourth piece, No error↵
200, Y,,,,,,,, 5,,,,,,,19970423210000ES, 19970423220000ES,,,,,,,,Fifth piece, No error↵
200, N, AEP, 123456789, ABC/XY, CE, MECS,,,20, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A, pub/AEP/incoming, 19970423040000ES, 19970423160000ES, 2.00, Y, SC:(cust:SP);RV:(cust:SP);RF(cust:RQ);EI:(cust:R123); SP:(custR234); SU:(cust:R345), P0123, S123, R765, D123, Standard hourly reservation after profiled reservation, No error↵

b. Submission of Reassignment Information—Case 1: In the prior example, a reservation request was submitted to ''Rseler'' for 20MW of Hourly Non-firm service from 04:00 to 16:00. Assume that Rseler 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 4/23 under ASSIGNMENT__REF=7880. Rseler must designate which transmission service rights are to be reassigned to Cust to satisfy the 20MW from 04:00 to 16:00. This reassignment information is conveyed by Rseler 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=1.2↵
TEMPLATE=transsell↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=3↵
COLUMN__HEADERS=CONTINUATION__FLAG, ASSIGNMENT__REF, OFFER__PRICE, STATUS, STATUS__COMMENTS, ANC__SVC__LINK, SELLER__COMMENTS, REASSIGNED__REF REASSIGNED__CAPACITY, REASSIGNED__START__TI

SIGNED__STOP__TIME N. 8236, 2.00, ACCEPTED, Status comments here,SC:(cust:SP);RV;(cust:SP);RF(cust:RQ);EI:(cust:R123);SP:(custR234);SU:(cust:R345), Seller comments here, 7019, 20, 19970423040000ES, 19970423080000ES↵
Y,,,,,,,7880, 10, 19970423080000ES, 19970423160000ES↵
Y,,,,,,,7019, 10, 19970423080000ES, 19970423160000ES↵

Response:

VERSION=1.2↵
TEMPLATE=transsell↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=3↵
COLUMN__HEADERS=RECORD__STATUS, CONTINUATION__FLAG, ASSIGNMENT__REF, OFFER__PRICE, STATUS, STATUS__COMMENTS, ANC__SVC__LINK, SELLER__COMMENTS, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, ERROR__MESSAGES 200, N. 8236, 2.00, ACCEPTED, Status comments here,SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(cust:R234);SU:(cust:R345), Seller comments here, 7019, 20, 19970423040000ES, 19970423080000ES.↵
200 Y,,,,,,,7880, 10, 19970423080000ES, 19970423160000ES,↵
200 Y,,,,,,,7019, 10, 19970423080000ES, 19970423160000ES,↵

c. Submission of Reassignment Information—Case 2: Primary provider, AEP, is notified of a sale/assignment of transmission service right from ''Resell'' to ''cust''. The parameters of the new reservation are for 10MW on 4/23 for ''off-peak'' hours (00:00–06:00 and 22:00–24:00) on POR/POD CE–VP. Rseler is assigning rights to 10MW from a prior reservation for the CE–VP path for Daily Firm in amount of 50 MW on 4/23 under ASSIGNMENT__REF=7019 to Cust. AEP would submit the following information using the transassign Template to post this (re)sale. The only fields allowed in ''continuation'' records for the transassign Template are CAPACITY, START__TIME, STOP__TIME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, and REASSIGNED__STOP__TIME.

Even though there is a one-to-one correspondence between the segments of the new reservations and the reassignment of service from a prior reservation, it is entirely possible that a reservation spanning a single contiguous period would require multiple continuation records to convey reassignment information, and vice versa.

Fields for CUSTOMER__NAME and SELLER__NAME were used to convey user names for subsequent resolution of contact information from user registration.

Input:

VERSION=1.2↵
TEMPLATE=transassign↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=2↵
COLUMN__HEADERS=CONTINUATION__FLAG, CUSTOMER__CODE, CUSTOMER__DUNS, PATH__NAME, POINT__OF__RECEIPT, POINT__OF__DELIVERY, SOURCE, SINK, CAPACITY, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__PRICE, SALE__REF, POSTING__NAME, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, SELLER__COMMENTS↵
N, Resler, 456123789, Cust, 987654321, , CE, VP, , , 10, HOURLY, NON-FIRM, POINT__TO__POINT, OFF__PEAK, N/A, 19970423000000ES, 19970423060000ES, 2.00, Joe Smith, Jane Doe, N, 19970422121354ES, , 7019, 10, 19970423000000ES, 19970423060000ES, Seller comments go here↵
Y, , , , , , , , , , 10, , , , , , 19970423220000ES, 19970424000000ES, , , , , , , 7019, 10, 19970423220000ES, 19970424000000ES↵

Response:

REQUEST__STATUS=200↵
TIME__STAMP=19970422144520ES↵
VERSION=1.2↵
TEMPLATE=transassign↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=2↵
COLUMN__HEADERS=RECORD__STATUS, 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, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, OFFER__PRICE, SELLER__NAME, CUSTOMER__NAME, TIME__QUEUED, SALE__REF, REASSIGNED__REF, REASSIGNED__CAPACITY, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME, SELLER__COMMENTS, ERROR__MESSAGE↵
200, N, 8207, Rseler, 456123789, Cust, 987654321, N, , CE, VP, , , 10, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A 19970423000000ES, 19970423060000ES, 2.00, Joe Smith, Jane Doe, 19970422121354ES, , 7019, 10, 19970423000000ES, 19970423060000ES, Seller comments go here,↵

200, Y, , , , , , , , , , , , 10, , , , , , 19970423220000ES, 19970424000000ES,,,,,, 7019, 10, 19970423220000ES, 19970424000000ES,,↵

d. Query of Transmission Reservation Status: The following typical response to a transstatus query might be delivered for 4/23 based on prior examples. Note that the only fields returned in ''continuation'' records are, CAPACITY, 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 4/23>

Response:

REQUEST__STATUS=200↵
TIME__STAMP=19970423040523ES↵
TEMPLATE-transstatus↵
OUTPUT__FORMAT=DATA↵
PRIMARY__PROVIDER__CODE=AEP↵
PRIMARY__PROVIDER__DUNS=123456789↵
DATA__ROWS=11↵
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, SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, TS__SUBCLASS, START__TIME, STOP__TIME, CEILING__PRICE, OFFER__PRICE, BID__PRICE, PRECONFIRMED, ANC__SVC__LINK, ALTERNATE__SERVICE__FLAG, POSTING__REF, SALE__REF, REQUEST__REF, DEAL__REF, NEGOTIATED__PRICE__FLAG, STATUS, STATUS__COMMENTS, TIME__QUEUED, TIME__OF__LAST__UPDATE, PRIMARY__PROVIDER__COMMENTS, SELLER__COMMENTS, CUSTOMER__COMMENTS, SELLER__NAME, SELLER__PHONE, SELLER__FAX, SELLER__EMAIL, CUSOMTER__NAME, CUSTOMER__PHONE, CUSTOMER__FAX, CUSTOMER__EMAIL, REASSIGNED__REF, REASSIGNED,__CAPACITY, REASSIGNED__START__TIME, REASSIGNED__STOP__TIME5
N, 8207, Rseler, 456123789, A Cust, 987654321, N, CE, VP, , , 10, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A, 19970423000000ES, 19970423060000ES, 2.25, 2.00, 6.20, N,SC:(cust:SP); RV:(cust:SP); RF(cust:RQ); EI:(cust:R123); SP:(custR234); SU:(cust:R345), N, , , , , N, CONFIRMED, , 19970422121354ES,, 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, 19970423000000ES, 19970423060000ES↵
Y, , , , , , , , , , , , 10, , , , , , 19970423220000ES, 19970424000000ES, ,7019, 10, 19970423220000ES, 19970424000000ES↵
N, 8234, Rseler, 456123789, ACust, 987654321, N, , CE, MECS, , , 35 DAILY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A 19970423000000ES, 1997042360000ES, 42.00, 24,50, N,SC:(cust:SP); RV:(cust:SP); RES:(cust:RQ); EI:(cust:R123); SP:(custR234);SU:(cust:R345),N, , , , , N, CONFIRMED, , 19970422121354ES, , 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, 7019, 10, 19970423000000ES, 19970423060000ES↵
N, 8235, AEP, 123456789, Cust, 987654321, N, , CE, AMPO, , , 5, HOURLY, NON-FORM, POINT__TO__POINT; OFF__PEAK, N/A, 19970423060000ES, 19970423070000ES, 2.50, 2.50, 6.20, N, SC:(cust:SP); RV:(cust:SP); RF(cust:RQ); EI:(cust:R123); SP:(cust:R234); SU:(cust:R345),N, , , , , N, CONFIRMED, , 19970422160523ES, , 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,, 7019, 10, 19970423000000ES, 19970423060000ES↵
Y, , , , , , , , , , , , , 10, , , , , , ,19970423070000ES, 1997042380000ES, ,↵
Y, , , , , , , , , , , , ,15, , , , , , ,19970423080000ES, 19970423200000ES, ,↵
Y, , , , , , , , , , , , ,10, , , , , , ,19970423200000ES, 19970423210000ES, ,↵
Y, , , , , , , , , , , , ,5, , , , , , ,19970421000000ES, 19970423220000ES, ,↵
N. 8236, Rseler, 456123789, Cust, 987654321, N, , CE, VP, , , 20, HOURLY, FIRM, POINT__TO__POINT, OFF__PEAK, N/A 19970424040000ES, 19970424160000ES, 2.00, 2.50, 6.20, N, , , , , , CONFIRMED, , 19970422160523ES, , Bid price refused, Negotiated OFFER__PRICE accepted, Joe Smith, (888)–123–4567, (888)–123–1231, jsmithxyz.com, Jane Doe, (999)–123–4567, (999)–123–8823, 7019, 20, 19970423040000ES, 19970423080000ES↵
Y, , , , , , , , , , , , , , , , , , , ,

d. The Customer may WITHDRAW request via transcust Template at any time up to point where the Seller sets STATUS to ACCEPTED.

e. Once the STATUS is CONFIRMED, the OFFER__PRICE officially becomes the terms of the reservation.

4.4.6.2 Negotiations without Preconfirmation

e. The 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 OASIS.

b. The Seller has the option of setting the STATUS VIA the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets the OFFER__PRICE to the price he wants, and sets the STATUS to OFFER via the transsell Template.

d. The 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.

The OFFER__PRICE with the STATUST of CONFIRMED locks in the terms of the reservation.

4.4.6.3 Multiple Step Negotiations

a. The 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 OASIS.

b. The Seller has the option of setting STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets the OFFER__PRICE to the desired value, and sets the STATUS to OFFER via the transsell Template.

d. The Customer responds to the new OFFER__PRICE with an updated BID__PRICE and sets the STATUS to REBID for re-evaluation by the Seller.

e. 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 OFFER rather than ACCEPTED (see item c).

f. The Customer agrees to the OFFER__PRICE and sets the STATUS to CONFIRM via the transcust Template.

g. The OFFER__PRICE with the STATUS as CONFIRMED locks in the terms of the reservation.

4.4.6.4 Negotiations Refused by Seller

a. The 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 OASIS.

b. The Seller has the option of setting the STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets OFFER__PRICE to his desired value, and sets STATUS to OFFER via the transsell Template.

d. The 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 or REFUSED.

4.4.6.5 Negotiations Withdrawn by Customer

a. The 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 OASIS.

b. The Seller has the option of setting STATUS via the transsell Template to one of the following: RECEIVED, STUDY, ACCEPTED, OFFER, or REFUSED.

c. The Seller determines that the BID__PRICE is too low, sets the OFFER__PRICE to his desired value, and sets the STATUS to OFFER via the transsell Template.

d. The Customer responds to the OFFER__PRICE with an updated BID__PRICE and sets the STATUS to REBID for re-evaluation by Seller.

e. The Seller determines that the BID__PRICE is still too low, sets the OFFER__PRICE to another value, and sets STATUS to OFFER via the transsell Template.

f. The Customer breaks off all further negotiations by setting STATUS to WITHDRAWN (or the customer/seller could go through additional iterations of REBID/OFFER until negotiations are broken off or the reservation is CONFIRMED).

4.5 Information Supported by WEB Page

There shall be a Web page on each OASIS node with information on requesting the text file of the tariffs and service agreements.

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.

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 this TS Information only through the use of ASCII or through encrypted files.

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 the OASIS, 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 the 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.

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 assocated 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 publicy availabe TS Information.

b. Access Privilege for Transaction: 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.

5.3 OASIS Response Time Requirements

TSIPs can only be responsible for the response capabilities of two portions of the Internet-based OASIS net work:

- The response capabilities of the OASIS Node server to process interactions with Users
- The bandwidth of the connection(s) between the OASIS Node server and the Internet.

Therefore, the OASIS response time requirements are as follows:

a. OASIS Node Server Response Time: The OASIS Node server shall be capable of supporting its connection(s) to Users with an average aggregate data rate of at least ''A'' bits per second. ''A'' is defined as follows:

A = N * R bits/sec
where
N = 5% of registered Customers.
and
R = 28,800 bits/sec per Customer.

b. OASIS Node Network Connection Bandwidth: The bandwidth ''B'' of the OASIS Node conection(s) to the Internet shall be at least:

B = 2 * A bits/sec

C. Time to Meet Response Requirements: The minimum time response shall be met within 1 month of User registration for any single new User. If more than 10 new Users register in one month, 2 months lead time shall be permitted to expand/upgrade the OASIS Node to meet the response requirements.

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 accumlated, 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:

3 **Σ** for affected Users of 1/n * (Login Time), which is the time used by each affected User to try to link and log on to the Provide account, and where ''n'' is the total number of Users actively registered for the 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:

3 **Σ** for affected Users of 1/n * (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.

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.

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–1350, 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.

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 of the log.

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.

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.

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 down load these performance statistics.

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.

Appendix A—Data Element Dictionary

Version 1.2

May 27, 1998

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
AFFILIATE__FLAG	AFFLAG	1(ALPHANUMERIC)3	Valid Values YES NO	Set to YES if customer is an affiliate of the provider.
ANC__SERVICE__TYPE	ANCTYPE	1(ALPHANUMERIC)20	Valid types • EL • SP • SU • RV • RF • SC • (Registered).	El—Energy Imbalance. EP—Spinning Reserve. SU—Supplemental Reserve. RV—Reactive supply and Voltage Control. RF—Regulation and Frequency response. SC—Scheduling, system Control and Dispatch. (Registered) must be registered with www.tsin.com and listed in the ANCSERV template.
ANC__SVC__LINK	ANCSVCLINK.	1(ALPHANUMERIC)300	Formatted string as follows. SC:(AA); RV: (AA); RF: (AA[:xxx[:yyy[:nnn]]]); EL: (AA[:xxx[:yyy[:nnn]]]); SP: (AA[:xxx[:yyy[:nnn]]]); SU (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 formated string: SC:(AA); RV:(AA); RF:AA[:xxx[:yyy[:nnn]]]); El: (AA[:xxx[:yyy[:nnn]]]); SP:(AA[:xxx[:yyy[:nnn]]]):SU: (AA|:xxx|:yyy| nn|||): [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 ''FI'', 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 ANC__SVC__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

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
				—''RQ'' to indicate that the Customer is asking the OASIS 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 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.
ANC__SVC__REQ	ANCSVCREQ.	1(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 ANC__SERVICE__TYPE), where the letters mean the following: (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.
ALTERNATE__SERVICE__FLAG.	ALTSVCFLG	2(ALPHANUMERIC)3	Defaulted to ''YES''	Used as a flag to identify this reservation as a NON-FIRM use of FIRM transmission services on an alternate point of delivery.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
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.
BID__PRICE	BIDPR	1(NUMERIC)5 +“.” +2(NUMERIC)12	Positive number with 2 decimals.	The current bid price of a Service in dollars and cents. Used by Customers to designate a price being bid.
CAPACITY	CAP	1(NUMERIC)12	Non-negative 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__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__SCHEDULED	CAPSCH	1(NUMERIC)12	Non-negative number in units of MW.	Transfer capability scheduled on each path.
CATEGORY	CAT	1(ALPHANUMERIC)25	Valid name from CATEGORY in LIST Template.	A name to be used to categorize messages. Valid names would include: *Discount, Want-Ad, Curtailment, Outage, Oasis Maint Notice.*
CELING__PRICE	CEILPR	1(NUMERIC)5 + “.” + 2(NUMERIC)2.	Positive number with 2 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 surrounded with A and separated by commas. Limited to valid Template element names. Must use full element name and not alias.	Example: COLUMN__HEADER= APATH__NAME’’, POINT__OF__RECEIPT’’, POINT__ OF__DELIVERY’’, ‘‘SOURCE’’, ‘‘SINK’’.
CONTINUATION__FLAG	CONT	1(ALPHANUMERIC)1	‘‘Y’’ OR ‘‘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 CONROL__AREA.
CURTAILMENT__OPTIONS	CUROPT	1(ALPHANUMERIC)80	Free form text	Customer options, if any, to avoid curtailment.
CURTAILMENT__PROCEDURES.	CURPROC	(ALPHANUMERIC)80	Free form text	Curtailment procedures to be followed in the event of a curtailment.
CURTAILMENT__REASON	CURREAS	(ALPHANUMERIC)80	Free form text	Reason for curtailment of service.
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	1(ALPHANUMERIC)80	Free-form text	Informative text.
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 contract person.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
CUSTOMER__FAX	CUSTEFAX	14(ALPHANUMERIC)20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn.	Fax phone number of Customer contract person.
CUSTOMER__NAME	CUSTNAME	(ALPHANUMERIC)25	Free form text	Name of Customer contract 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	TIMEEFCT	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.
DATE__TIME__POSTED	TIMEPSTD	16(ALPHANUMERIC)16	Valid date and time in seconds yyyy+mo+dd+hh +mm+ss+tz.	Date and time to seconds a message or service offered was posted.
DEAL__REF	DREF	1(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.
FORMER__COMPANY	FORMCO	1(ALPHANUMERIC)25	Free form text	Former company of the person who is transferring.
FORMER__DEPARTMENT	FORMDEPT	1(ALPHANUMERIC)25	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.
INTERFACE__TYPE	INTERFACE	1(ALPHANUMERIC)1	I,E	Type of interface define by path: Internal (I) to a control area or External (E) to a control area.
LIST__ITEM	ITEM	1(ALPHANUMERIC)50	Free form text	Item from list, such as list of SELLERs, list of PATHs, list of PORs, list of PODs, Lists of SERVICE__INCREMENT, TS__CLASS, TS__TYPE, TS__PERIOD, NERC__ CURTAILMENT__PRIORITY, OTHER__CURTAILMENT__ PRIORITY, SERVICE__INCREMENT, CATEGORY List of TEMPLATEs.
LIST__ITEM__ DESCRIPTION	ITEMDESC	0(ALPHANUMERIC)100	Free form text	A detailed description of the LIST__ITEM.

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)25	LIST, SELLER, PATH, POR, POD, SERV-ICE__INCREMENT, TS__CLASS, TS__TYPE, TS__ PERIOD, TS__SUBCLASS, ANCIL-LARY__ SERVICE__ TYPE, CATEGORY, TEM-PLATE.	List of valid names for each of the types of lists. The minimum set of lists defined must be im-plemented.
MESSAGE	MSG	1(ALPHANUMERIC)200	Free form text	An informative text message.
NEGOTIATED__PRICE__FLAG	NGPRIFLG	1(ALPHANUMERIC)1	H, L, or blank	Set to H if OFFER__PRICE is higher than the currently post-ed price; set to L if OFFER__PRICE is lower than the currently posted price.
NERC__CURTAINMENT__ PRIORITY.	NERCURT	1(NUMERIC)1	Integer 1–7	One of the NERC seven curtail-ment priorities, documented in LIST templat.
NEW__COMPANY	NEWCO	1(ALPHANUMERIC)25	Free form text	New company of the person who is transferring.
NEW__DATA	NEWDATA	1(ALPHANUMERIC)200	Any valid date element value	For audit log, the new updated value of a Template data ele-ment after update.
NEW__DEPARTMENT	NEWDEPT	1(ALPHANUMERIC)25	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)2.	Positive number with 2 deci-mals.	The current offered price of a Service in dollars and cents. Used by the Seller to indicate the offering price.
OFFER__START__TIME	OFFSTIME	16(ALPHANUMERIC)16	Valid Date and Time to sec-onds:. yyyy+mo+dd+hh+mmm+ ss+tz.	Start time of the window during which a Customer may request a discounted offer.
OFFER__ STOP__TIME	OFFSPTIME	16(ALPHANUMERIC)16	Valid Date and Time to sec-onds: 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).
OLD__DATA	OLDDATA	1(ALPHANUMERIC)200	Any valid data element value	For audit log, the old value of a Template data element prior to being updated. This element is not applicable in the audit log for transaction events.
OPTIONAL__CODE	N/A	0(ALPHANUMERIC)25	Unique path name within re-gion.	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. Used by PATH__NAME.
OTHER__CURTAILMENT __PRIORITY.	OTHCUR	0(ALPHANUMERIC)8	Free form tect	Other than NERC curtailment pri-orities, such as regional curtail-ment priorities. Suggested for-mat region+number, for exam-ple MAPP4, WSCC7. Docu-mented in LIST template.
OUTPUT__FORMAT	FMT	4(ALPHANUMERIC)4	HTML, DATA	Format of response: HTML = hypertext markup lan-guage 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 pro-vider.	Unique code within a Region for each path. Used by PATH__NAME.

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	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. 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:. 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.
POINT__ OF__DELIVERY	POD	1(ALPHANUMERIC)12	Unique value within Primary Provider.	Point of Delivery is 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	Unique value within Primary Provider.	Point of Receipt is 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.
POSTING__NAME	POSTNAME	1(ALPHANUMERIC)25	Free form text	Name of person who is posting the information on the OASIS.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
POSTING__REF	POSTREF	1(ALPHANUMERIC)12	Unique Value	Assigned by TSIP when Service or Message is received by TSIP. Unique number can be used by the user to modify or delete the posting.
PRECONFIRMED	PRECONF	2(ALPHA)3	YES or 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	1(ALPHA)20	Free form text	The units used for CEILING__PRICE, OFFER__PRICE, and BID__PRICE. Examples: $/MWhr, $/MWmonth
PRIMARY__ PROVIDER__COMMENTS.	PPROVCOM	1(ALPHANUMERIC)80	Free form text	Informative text. Usually entered by the Primary Provider through a back end system.
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__DUNS.	PPROVDUNS.	9(NUMERIC)9	Valid DUNS number	Unique code for each Primary. Provided by Dun and Bradstreet.
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	When customer makes a purchase of a transmission service that was posted for resale and a new ASSIGNMENT__REF number is issued the previous ASSIGNMENT__REF number now becomes the REASSIGNMENT__REF. Also used by SELLER when posting transmission or ancillary services for resale to show the previous assignment reference number. Also used by the customer when making a request to use FIRM service as NON-FIRM over alternate points of delivery.
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	RESSPIME	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

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: E—ECAR. I—MAIN. S—SERC. T—ERCOT. A—MAPP. P—SPP. M—MAAC. N—NPCC. W—WSCC. Second character or digit reserved for subregion id as defined by each region.
REQUEST__REF	RREF	1(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.
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__NAME.	PARTNAME	1(ALPHANUMERIC)25	Free form text	The name of the person responsible for granting the discretion.
RETURN__TZ	TZ	2(ALPHANUMERIC)2	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.
SALE__REF	SREF	1(ALPHANUMERIC)12	Unique value	Identifier which is set by seller (including Primary Provider) when posting a service for sale.
SELLER__CODE	SELLER	1(ALPHANUMERIC)6	Unique value	Organization name of Primary Provider or Reseller.
SELLER__COMMENTS	SELCOM	1(ALPHANUMERIC)80	Free form text	Informative text provided by the Seller.
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.
SERVICE__INCREMENT	SRVINCR	1(ALPHANUMERIC)8	Valid increments • HOURLY • Daily • Weekly • Monthly • Yearly • {Registered}	The transmission service increments provided. Five are predefined, while additional increments can be used if they are registered on TSIN.COM and shown in the Provider's LIST template.
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 an individual contact person at the Seller.
SELLER__PHONE	SELPHONE	14(ALPHANUMERIC)25	Free form text	The telephone number of a contact person as a Seller.
SERVICE__DESCRIPTION	SVCDESC	1(ALPHANUMERIC)200	Free form text	Information regarding a service.
SERVICE__NAME	SVCNAME	1(ALPHANUMERIC)25	Free form text	Name of service affected by the discretionary action.
SERVICE__TYPE	SVCTYPE	1(ALPHANUMERIC)25	Free form text	Type of service affected by the discretionary action.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
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__ISSUE.	STDISSUE	0(ALPHANUMERIC)200	Free form text	Issues that were in violation of the FERC Standards of Conduct.
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: xlyyyy+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.
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 field (QUEUED, RECEIVED, STUDY, REBID, OFFER, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, DISPLACED, ANNULLED, RETRACTED).	QUEUED=initial status assigned by TSIP on receipt of ''customer capacity purchase request''. RECEIVED=reassigned by TP to acknowledge QUEUED requests and indicate the service request is being evaluated. STUDY=assigned by TP to indicate some level of study is required or being performed to evaluate service request. OFFER=assigned by TP to indicate that an OFFER__PRICE is being proposed. REBID=assigned by TC to indicate a new BID__PRICE is being proposed. ACCEPTED=assigned by TP to indicate service request has been approved/accepted. If the reservation request was submitted PRECONFIRMED, OASIS 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. REFUSED=assigned by TP to indicate service request has been denied, SELLER__COMMENTS should be used to communicate reason for denial of service.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
				CONFIRMED=assigned by TC in response to TP posting ''ACCEPTED'' status to confirm service. WITHDRAWN=assigned by TC at any point in request evaluation to withdraw the request from any further action. DISPLACED=assigned by TP when a ''CONFIRMED'' request from a TC is displayed by a longer term request and the TC has exercised right of first refusal (i.e. refused to match T&Cs of new request). ANNULLED=assigned by TP when, by mutual agreement with the TC, the transaction is to be voided. RETRACTED=assigned by TP when the TC fails to confirm or withdraw the transaction within the required time period.
STATUS__COMMENTS	STACOM	1(ALPHANUMERIC)80	Free form text	Informative text.
STATUS__NOTIFICATION	STATNOT	1(ALPHANUMERIC)200	http://URL:portnumber/directry/cgi script/query parameters or Mailto: <e-mail address.>.	The STATUS__NOTIFICATION data element shall contain the rptocol 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, or mailto and email address for the status information the Customer wants to receive upon a change in STATUS of transstatus, or ancstatus.
STOP__TIME	SPTIME	16(ALPHANUMERIC)16	Valid date and time yyyy + mo + ddd + 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	STPTIMEP	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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
SUBJECT	SUBJ	1(ALPHANUMERIC)80	Free form text	Informative text used to summarize a topic in a message.
TARIFF__REFERENCE	TARIFF	1(ALPHANUMERIC)150	Free form text. Name and description of Tariff.	Tariffs approved by FERC.
TEMPLATE	TEMPL	1(ALPHANUMERIC)20	Valid Name of Template from Section 4.3 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.
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.
TS__CLASS	TSCLASS	1(ALPHANUMERIC)20	Valid classes: • FIRM • NON-FIRM • TTC • (Registered)	The transmission service classes provided. Three 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.
TS__PERIOD	TSPER	1(ALPHANUMERIC)20	Valid periods: 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.

Data dictionary element name	Alias	Field format: minimum characters (type of ASCII) maximum characters	Restricted values	Definition of data element
TS__SUBCLASS	TSSUBC	1(ALPHANUMERIC)20	Free form	The transmission service subclasses provided. These are freeform.
TS__TYPE	TSTYPE	1(ALPHANUMERIC)20	Valid periods: • POINT__TO__POINT • NETWORK • (Registered)	The transmission service types provided. Two are pre-defined, while additional types can be used if they are registered on TSIN.COM and shown in the Provider's LIST template.
TS__WINDOW	TSWIND	1(ALPHANUMERIC)20	Valid periods: • FIXED • SLIDING • (Registered)	The transmission service windows provided. Two are predefined, 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 time zone and indication whether daylight savings time is to be used.	Time zones: Atlantic time=AD, AS. Eastern time=ED, ES. Central time=CD, CS. Mountain time=MD, MS. Pacific time=PD, PS. 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	Specifics which version of the OASIS Standards and Communication Protocol to use when interpreting the request.

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