First, in both Situations 2 and 3, retail power costs are stranded by customers who gain access to FERC jurisdictional transmission tariffs via state action. In Situation 2, state municipalization law governs. In Situation 3, the state has authorized retail wheeling by statute or regulation, or both. Notwithstanding the need for state authorization in both cases, the majority decides that the Commission should be the ''primary forum'' in Situation 2, but that a much more narrow approach to retail stranded costs in Situation 3.[7] The more aggressive ''primary forum'' approach to municipalization is predicated on the view that any strandings are a result of an inducement (*i.e.*, market options) created by this Commission's Open Access Rule. Yet, since both wholesale transmission customers and retail transmission customers are ''eligible customers'' under the tariffs required by this Rule, if the Rule induces the stranding of retail power costs in one situation, it obviously does it in both.

As commenters have noted, the relationship between FERC-regulated transmission service and retail power customers is generally the same in both Situations 2 and 3.[8] The similarity runs first to the actions that actually cause costs to be stranded. While it is true that retail wheeling will only occur pursuant to state legislative or regulatory action, it is also true that a retail customer can only convert to wholesale status (*e.g.*, municipalize) pursuant to state law. This process sometimes may occur in the absence of regulatory or other oversight (*e.g.*, municipalization under pre-established statutory scheme), or with direct and immediate review and approval. The current evidence reflects active state commission oversight, typically. In this latter case, there is even less reason to distinguish between these Situations.

The majority implicitly seeks to delimit the area of appropriate state authority over stranded costs according to whether the state acts directly and by current enactments to authorize retail wheeling, on one hand, or less directly through established state municipalization laws, on the other. However, costs could be stranded under state law by either action. Under the former scenario, however, a state is presumed to be more willing and capable of dealing with stranded costs. Under the latter, it is presupposed to be less interested. This distinction is specious.

A second similarity pertains to the jurisdictional status of transmission service. The Commission has been clear and consistent that the FPA gives the Commission exclusive jurisdiction over interstate transmission service, regardless of whether the customer is a wholesale or a retail wheeling customer. It is this authority upon which we rely to claim jurisdiction over transmission assets and related costs originally incurred to provide customers at the retail level with bundled service. New wheeling customers in both Situations 2 and 3 will take service under FERC open access tariffs. There are identical cost-causational facts in Situations 2 and 3, yet the majority adopts very different outcomes in each case under the Final Rule.

*D. The ''Primary Forum'' Approach is More Subject to Legal Challenge*

In my view, our disagreement involves more than a policy choice. The majority's chosen approach clearly makes our stranded cost recovery approach more vulnerable to a legal challenge. The cost recovery scheme which would result from the majority's approach will render a FERC-ordered transmission surcharge to recover retail stranded costs susceptible to legal challenge on the basis that it is anti-competitive and unduly discriminatory. The ''primary forum'' approach imposes upon a retail-turned-wholesale customer something akin to double jeopardy. In other words, a departing customer might have to pay both an exit fee for the retail costs which the state commission finds it has stranded and, in addition, an entry fee for wholesale access in the amount of the additional retail stranded costs which FERC determines are inadequately covered by state proceedings.

This, in my view, makes the Final Rule more susceptible to challenges that FERC's transmission surcharge is anti-competitive. *E.g., Cajun Electric Power Cooperative, Inc.* v. *FERC,* 28 F.3d 173 (D.C. Cir. 1994). The second-guessing of states inherent in the ''primary forum'' approach makes any arguments that stranded cost recovery is anti-competitive more difficult to overcome than if the stranded costs resulted from wholesale customers simply changing wholesale suppliers. This is because, unlike wholesale-to-wholesale strandings, the Commission cannot plausibly argue that the costs incurred were originally addressed in the context of its own rate decisions or were previously part of its responsibility for administering wholesale service obligations.

I am strongly persuaded that the Commission would be on much stronger legal ground if we were to treat state authority over stranded costs with the same deference in the municipalization or ''retail-turned-wholesale'' situation in the same manner as the Final Rule prescribes for situations where retail wheeling occurs. In the latter case, the Commission ought to provide a forum where neither the state legislature nor the state commission attempts to address this important transition issue.

James J. Hoecker,

*Commissioner.*

Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities

Recovery of Stranded Costs by Public Utilities and Transmitting Utilities

[Docket No. RM95–8–000; Docket No. RM94–7–001]

Issued April 24, 1996.

MASSEY, Commissioner, *dissenting in part:*

I support all of the provisions of this rule save one, the provision on stranded costs arising from retail competition and from municipalization. When the Commission issued the Notice of Proposed Rulemaking, I stated that the Commission should treat stranded costs arising from retail competition and municipalizations similarly, as follows:

For either retail competition or municipalization, when the state commission has authority to address the issue, and uses such authority to decide the recoverability of the stranded costs, the state's decision should not be second-guessed by this Commission. However, when a state commission does not have the authority to decide the recoverability of stranded costs, or has authority but does not use it, this Commission should act on requests for stranded cost recovery.

My approach would assure utilities of getting a decision on the merits of their claim. Costs would not be stranded for lack of a regulatory decision. At the same time, this Commission would allow states to make decisions, when they have authority, on issues of critical concern to their local utilities and ratepayers. Only if states lack, or fail to use, such authority would this Commission step in to assure the utility of receiving a decision on the merits.

For the reasons I stated then, I still disagree with the rule's approach to stranded costs arising from retail competition or municipalization. In all other respects, I support this rule.

William L. Massey,

*Commissioner.*

[FR Doc. 96–10694 Filed 5–9–96; 8:45 am]

BILLING CODE 6717–01–P

[7] The policy adopted with respect to Situation 3 is that the Commission would only be a forum for hearing stranded costs issues in the narrow circumstance where ''the state regulatory authority does not have authority under state law to address stranded costs when the retail wheeling is required.'' The majority fails to address what would happen if a legislature addresses the issue of stranded costs directly without delegating the task to a state regulatory authority. I would hope that the Commission would not set itself up for confrontation with a state legislature and I would have preferred that to also exclude those circumstances ''where the state otherwise addresses the issue'' from the circumstances in which the Commission would act in Situation 3.

[8] This argument is made both by commenters arguing that the Commission has no jurisdiction over stranded costs in Situation 2 or 3 (California Public Utilities Commission Initial Comments at 7) and by commenters arguing that the Commission should assert primary jurisdiction over stranded costs in both Situations (*see e.g.*, Edison Electric Institute Initial Comments at IV–13; Coalition For Economic Competition Initial Comments at 22; Utilities For An Improved Transition Initial Comments at 16–26).

## DEPARTMENT OF ENERGY

## Federal Energy Regulatory Commission

## 18 CFR Part 37

**[Docket No. RM95–9–000; Order No. 889]**

## Open Access Same-Time Information System (Formerly Real-Time Information Networks) and Standards of Conduct

April 24, 1996.

**AGENCY:** Federal Energy Regulatory Commission.

**ACTION:** Final rule.

**SUMMARY:** The Federal Energy Regulatory Commission is adding rules establishing and governing an Open Access Same-time Information System (OASIS) (formerly real-time information networks) and prescribing standards of conduct. Under this final rule, each public utility (or its agent) that owns, controls, or operates facilities used for the transmission of electric energy in interstate commerce will be required to create or participate in an OASIS that will provide open access transmission customers and potential open access transmission customers with information, provided by electronic means, about available transmission capacity, prices, and other information that will enable them to obtain open access non-discriminatory transmission service. This final rule requires each public utility subject to the rule to implement standards of conduct to functionally separate transmission and wholesale power merchant functions and the creation of a basic OASIS system. In addition, some of the standards and formats for OASIS nodes are prescribed in a document entitled *OASIS Standards and Communication Protocols* that is being issued with the final rule. The Commission also is establishing further procedures to complete the standards for displays and formats. The development of OASIS requirements will continue in a Phase II, in which the Commission will continue to develop the requirements for a fully functional OASIS.

*Effective Date:* This final rule will become effective on July 9, 1996.

*Compliance Date:* Compliance with the standards of conduct and operation of an OASIS meeting the requirements of this final rule must commence on or before November 1, 1996.

*Conference Date:* A technical conference on any remaining issues will be held on June 17, 1996.

**ADDRESSES:** The technical conference will be held at the Commission's headquarters at 888 First Street, NE., Washington, DC. 20426.

**FOR FURTHER INFORMATION CONTACT:**

Marvin Rosenberg (Technical Information), Office of Economic Policy, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, (202) 208–1283

William C. Booth (Technical Information), Office of Electric Power Regulation, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426 (202) 208–0849

Gary D. Cohen (Legal Information), Office of the General Counsel, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, (202) 208–0321

**SUPPLEMENTARY INFORMATION:** In addition to publishing the full text of this document in the Federal Register, the Commission also provides all interested persons an opportunity to inspect or copy the contents of this document during normal business hours in the Public Reference Room at 888 First Street, NE., Washington, DC 20426.

The Commission Issuance Posting System (CIPS), an electronic bulletin board service, provides access to the texts of formal documents issued by the Commission. CIPS is available at no charge to the user and may be accessed using a personal computer with a modem by dialing 202–208–1397 if dialing locally or 1–800–856–3920 if dialing long distance. CIPS is also available through the Fed World system (by modem or Internet). To access CIPS, set your communications software to 19200, 14400, 12000, 9600, 7200, 4800, 2400, or 1200 bps, full duplex, no parity, 8 data bits and 1 stop bit. The full text of this order will be available on CIPS indefinitely in ASCII and Wordperfect 5.1 format. The complete text on diskette in WordPerfect format may also be purchased from the Commission's copy contractor, La Dorn Systems Corporation, also located in the Public Reference Room at 888 First Street, NE., Washington, DC 20426.

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## I. Introduction

The Federal Energy Regulatory Commission (Commission) is promulgating new regulations amending 18 CFR to add Part 37 containing rules establishing and governing transmission information networks and standards of conduct. The Commission is issuing this final rule in tandem with its final rule on Open Access Transmission and Stranded Costs (Open Access Final Rule).[1] This final rule applies to any public utility that offers open access transmission services under the Open Access Final Rule *pro forma* tariff. Under the Open Access Final Rule, the open access *pro forma* tariff may be used by wholesale transmission customers and by retail transmission customers that are able to receive unbundled retail transmission either voluntarily from the public utility or as a result of a state retail access program.

This final rule is being issued after a review of the comments filed in response to the Commission's notice of proposed rulemaking issued in this proceeding on December 13, 1995 (RIN NOPR).[2]

This final rule becomes effective on July 9, 1996. By November 1, 1996, all affected public utilities must file procedures with the Commission that will enable customers and the Commission to determine whether they are in compliance with the standards of conduct requirements contained herein.

Additionally, under this final rule, each public utility as defined in section 201(e) of the Federal Power Act, 16 U.S.C. 824(e) (1994), (or its agent) that owns, controls, or operates facilities used for the transmission of electric energy in interstate commerce (each Transmission Provider) must develop or participate in an Open Access Same-time Information System (OASIS).[3] This final rule establishes Phase I OASIS rules that require the creation of a basic OASIS.[4] The basic OASIS required by this final rule must be in place and operational by November 1, 1996. The development of OASIS requirements will continue in Phase II, during which the Commission will develop the requirements for a fully functional OASIS.

While the final rule set forth in this order is consistent with the proposal described in the RIN NOPR, it also resolves certain issues that were described in the RIN NOPR but left undecided, and adds clarifications and revisions, as suggested by the comments. As proposed in the RIN NOPR, the final rule describes what information must be provided on an OASIS, how an OASIS must be implemented and used, and contains a code of conduct applicable to all transmission providing public utilities.

As proposed in the RIN NOPR, we are issuing this final rule along with a separate document entitled *OASIS Standards and Communication Protocols (Standards and Protocols)* to help ensure that each OASIS will provide information in a uniform manner. However, the standards and protocols are not yet complete. Consequently, we are inviting the How Group[5] to submit an additional report, on or before May 28, 1996, to help us resolve these deficiencies. We will also hold a technical conference on June 17, 1996 to resolve any remaining issues and to allow input from interested persons. We will issue a revised *Standards and Protocols* document as soon as possible thereafter.

We are moving promptly to complete the standards and protocols to ensure that the OASIS will be operational and in compliance with this final rule by November 1, 1996. In selecting this date, we have balanced the need to have a functional system of fair and non-discriminatory information in place to support the Open Access Final Rule against the comments that argued that implementation of an OASIS could not be accomplished in 60 days and to avoid implementation during the peak winter or summer months.

## II. Public Reporting Burden

The final rule requires Transmission Providers to participate in an OASIS designed to provide open access transmission users and potential open access transmission users with information by electronic means about available transmission capacity and prices.

The RIN NOPR contained an estimated annual public reporting burden associated with a final rule consistent with the RIN NOPR. In response to the RIN NOPR, NRECA[6] filed comments with the Commission that argued that the Commission's estimated public reporting burden should have taken into account that Question 45 of the RIN NOPR asked whether OASIS rules should be *extended* to apply to non-public utilities that own or control facilities used for the transmission of electric power in interstate commerce.[7] Based on this inquiry, NRECA argued that the public burden estimate should have been based on the assumption that the proposed OASIS rules would be extended to apply to non-public utilities (even though this was not proposed by the Commission).

The Commission's task in preparing a public burden estimate at the NOPR stage was to estimate the annual public reporting burden associated with a final rule consistent with the RIN NOPR. This is what the Commission did. An

[1] *See* Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Final Rule, FERC Stats. & Regs. ¶ 31,036 (April 24, 1996); this document is being published concurrently in the Federal Register.

[2] Real-Time Information Networks and Standards of Conduct, Notice of Proposed Rulemaking, 60 FR 66182 (December 21, 1995), FERC Stats. & Regs. ¶ 32,516 (December 13, 1995).

[3] In the notice of technical conference that initiated this proceeding, *see infra* n. 12, we chose the term ''Real-Time Information Network'' to describe the electronic information system envisioned by that notice. We invited comments on whether we should substitute another term in place of RIN. In response, a number of commenters suggested that ''RIN'' was not a suitable name for the electronic information network envisioned by the RIN NOPR, mainly because while some RIN postings may be made ''real-time'' most will not and that, therefore, RIN is a misnomer.

After a review of suggested replacements presented in the comments, we will abandon the name ''RIN'' in favor of Open Access Same-time Information System, suggested by Virginia Electric Power Company (VEPCO), for several reasons. First, as noted above, the information system being developed in this proceeding actually will be a ''same-time'' information system, and not a ''real-time'' system. Second, VEPCO correctly points out that the system will be part of an existing network (the Internet) and not a new network. Third, the name ''OASIS'' highlights that the system relates to open access.

[4] Any entity may, for good cause, seek a waiver of the requirements established by this final rule, either as to the creation of an OASIS or for reporting requirements.

[5] *See, infra,* n. 13.

[6] Attached to this document is a list of the commenters and the abbreviations used to designate them. Several of the comments were filed late. We, nevertheless, will consider these comments.

[7] NRECA also submitted a letter to the Office of Management and Budget (OMB) that raised the same issue.

estimate based on deviations from the NOPR proposal, as NRECA suggested, would have been inappropriate. At the same time, however, by asking Question 45, we identified the issue and gave the commenters an opportunity to be heard before making a final decision.

Our final rule, like the RIN NOPR, applies only to public utilities, and not to non-public utilities. However, as discussed in this order and as commented upon by various non-public utilities, in the Open Access Final Rule we are including a reciprocity provision in public utility open access tariffs under which all those who elect to take service under the open access tariff (including non-public utilities) will have to offer reciprocal service including an information network, unless they are granted a waiver of the reciprocity provision in the tariff.[8] Consequently, we have increased the estimate of number of respondents in this rulemaking to reflect the additional burden on those non-public utilities that seek service under open access tariffs. However, this is offset by our current expectation that there will be far fewer OASIS sites than we originally anticipated in the RIN NOPR. The How Group estimates there will be between 20–35 OASIS sites nationwide.[9] Using the higher number, the burden of running each OASIS will be shared, on average, by four respondents. This is reflected in the burden hour and cost estimates.

Our burden hour and cost estimates include the information gathering requirements imposed on public utilities that do not develop their own OASIS. Additionally, we have refined our estimate of the annual public reporting burden to account for revisions that this final rule makes to the RIN NOPR.

*Estimated Annual Burden:*

| Data collection | No. of respondents | No. of responses | Hours per response | Total annual hours |
|---|---|---|---|---|
| Reporting | 140 | 1 | 1879 | 263,060 |
| Recordkeeping | 140 | 1 | 418 | 58,520 |

Total Annual Hours for Collection (Reporting + Recordkeeping, (if appropriate)) = 321,580.
Data collection costs: The Commission projects the average annualized cost per respondent to be the following:
Annualized Capital/Startup Costs—$47,500.
Annualized Costs (Operations & Maintenance)—$142,250.
Total Annualized Costs—$189,750.

*Internal Review*

The Commission has reviewed the collection of information required by this final rule and has determined that the collection of information is necessary and conforms to the Commission's plan, as described in this final rule, for the collection, efficient management, and use of the required information. The Commission has assured itself, by means of its internal review, that there is specific, objective support for the information burden estimate set forth above.[10]

Persons wishing to comment on the collections of information required by this final rule should direct their comments to the Desk Officer FERC, Office of Management and Budget, Room 3019NEOB, Washington, D.C. 20503, phone 202–395–3087, facsimile: 202–395–7285 or via the Internet at hillier_____t@a1.eop.gov. Comments must be filed with the Office of Management and Budget within 60 days of publication of this document in the Federal Register. A copy of any comments filed with the Office of Management and Budget also should be sent to the following address at the Commission: Federal Energy Regulatory Commission, Information Services Division, Room 41–17, 888 First Street, NE., Washington, DC 20426. For further information, contact Michael Miller, 202–208–1415.

III. Discussion

*A. Background*

This proceeding began with the issuance of our proposed Open Access rule (Open Access NOPR) [11] and a notice of technical conference to consider whether a RIN (now an OASIS) or some other option would be the best means to ensure that potential customers of transmission services could obtain access to transmission service on a non-discriminatory basis. [12] The notice of technical conference was followed by procedures and input (described in the RIN NOPR) that led to the issuance of the RIN NOPR.

Open access non-discriminatory transmission service requires that information about the transmission system must be made available to all transmission customers at the same time. This means that public utilities must make available to others the same transmission information that is available to their own employees and that is pertinent to decisions they make involving the sale or purchase of electricity. The RIN NOPR suggested requirements representing the first steps towards accomplishing these objectives.

The RIN NOPR addressed four main issues: the types of information that need to be posted on an OASIS; technical issues concerning the development and implementation of an OASIS; the development of a basic OASIS in Phase I and the development of a fully functional OASIS in Phase II; and proposed standards of conduct to prevent employees of a public utility (or any of its affiliates) engaged in marketing functions from obtaining preferential access to OASIS-related information.

[8] As explained in the Open Access Final Rule, non-public utilities that do not want to meet the reciprocity condition may choose not to take service under an open access tariff. In that circumstance, the public utility may, if it chooses, voluntarily provide transmission service on a unilateral basis to the non-public utility.

[9] How Group comments at 19.

[10] *See* 44 U.S.C. § 3506(c).

[11] *See* Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Notice and Supplemental Notice of Proposed Rulemaking, 60 FR 17662 (April 7, 1995), FERC Stats. & Regs. ¶32,514 (March 29, 1995).

[12] Real-Time Information Networks, Notice of Technical Conference and Request for Comments, 60 FR 17726 (April 7, 1995).

The Commission's consideration of the first two of these issues relied heavily on the efforts of two industry-led working groups that presented recommendations to the Commission.[13]

Additionally, the RIN NOPR invited commenters to address specific questions on various issues and invited comments generally on the entire proposal.

As discussed in the RIN NOPR, the handling of various types of information that might be posted on an OASIS depends on substantive determinations being made in the Commission's Open Access rulemaking proceeding.[14] For this reason, the RIN NOPR attempted to identify the issues that might be affected by decisions that would be made in the Open Access rulemaking and invited comment on the mechanics of implementing whatever determinations ultimately would be reached in the Open Access rulemaking, without attempting to prejudge the merits of the underlying legal and policy issues.

Additionally, the RIN NOPR included (as Appendix ''C'') a set of upload and download templates for comment to ensure that all data definitions are the same and that the information presented on the OASIS will be uniform and clearly understood.

The Commission's RIN NOPR, issued on December 13, 1995, invited comments on enumerated questions, along with general comments. Comments were filed by over 100 commenters. These comments were generally favorable to the OASIS concept, although numerous disagreements remained as to the details. The comments will be discussed below on an issue-by-issue basis.[15]

In the RIN NOPR, we invited the two industry-led working groups to continue their efforts to reach consensus and to report to us on their progress. On March 7, 1996, the How Group submitted a report giving proposed revisions to their original report.[16] The How Group also submitted a report on April 15, 1996 making recommendations on additional issues on which the group had reached consensus.

*B. Summary of the Regulations and Their Implementation*

The Commission is issuing this final rule with the Open Access Final Rule to implement the legal and policy determinations being made in the Open Access Final Rule.[17] This final rule contains three basic provisions that, taken together, will ensure that transmission customers have access to transmission information enabling them to obtain open access transmission service on a non-discriminatory basis. This final rule is necessary, therefore, to meet the legal requirement, discussed in the Open Access Final Rule, that the Commission remedy undue discrimination in interstate transmission services by public utilities.

The first provision establishes standards of conduct. These standards are designed to ensure that a public utility's employees (or any of its affiliates' employees) engaged in transmission system operations function independently of the public utility's employees (or of any of its affiliates' employees) who are engaged in wholesale purchases and sales of electric energy in interstate commerce. Such separation is vital if we are to ensure that the utility does not use its access to information about transmission to unfairly benefit its own or its affiliates' sales. Entities subject to these rules are to achieve compliance with the standards of conduct by November 1, 1996.

The second provision sets out basic rules requiring that jurisdictional utilities that own or control transmission systems set up an OASIS. Under these rules, the utilities are required to provide certain types of information on that electronic information system as to the status of their transmission systems and are required to do so in a uniform manner. With these requirements, we are opening up the ''black box'' of utility transmission system information. When in place, the OASIS will allow transmission customers to determine the availability of transmission capacity and will help ensure that public utilities do not use their ownership, operation, or control of transmission to deny access unfairly. Entities subject to this rule are to have a basic OASIS, meeting the requirements of this final rule, in operation by November 1, 1996.

The third component involves the various standards and protocols referenced in the regulations that are necessary to ensure that the OASIS system presents information in a consistent and uniform manner. As proposed in the RIN NOPR, this final rule references a publication entitled *OASIS Standards and Communication Protocols*.[18] This publication contains the above-mentioned standards and communication protocols. The publication details the Phase I requirements for technical issues related to the implementation and use of an OASIS (*i.e.*, a compilation of OASIS standards and communication protocols). Because of their level of detail, the standards and protocols referenced in the regulations will be contained in the *Standards and Protocols* document and will not be set out in the Code of Federal Regulations.

In developing the standards and protocols, we have been greatly assisted by the industry. However, more work needs to be done before the necessary standards and protocols are complete. For this we will again look to the industry and its working groups. The Commission believes a standard or uniform set of protocols is essential. The industry is best situated not only to develop the necessary standards but to develop them where possible with a consensus. Consequently, we are asking the How Group to provide us with

[13] The North American Electric Reliability Council (NERC) acted as a facilitator for an industry-led independent working group, representing diverse interests, to help participants reach consensus, and to help them prepare a report to the Commission on what information should be posted on a RIN (the ''What Group''). The Electric Power Research Institute (EPRI) facilitated a similar working group (the ''How Group'') that sought consensus on how to implement a system that would accomplish these objectives. Both groups submitted reports to the Commission describing their progress in reaching consensus on their respective issues. As explained in the RIN NOPR, after determining that the working groups had balanced representation from diverse interests and had operated in an open, inclusive manner, the Commission used the working groups' recommendations as the starting point for developing the RIN NOPR.

A fuller description of the working groups' composition and activities is contained in the RIN NOPR and in the reports that those groups submitted to the Commission for its review (attached to the RIN NOPR as Appendices ''A'' and ''B'' and made publicly available at the Commission's offices and through the Commission Issuance Posting System (CIPS)).

[14] For example, the information about ancillary services that must be posted on an OASIS depends on what ancillary services a public utility must provide. Likewise, the information about discounts that must be posted on an OASIS depends on whether discounting is allowed.

[15] In the discussion that follows, our references to comments are illustrative and not inclusive. While we have intended to identify all of the major issues raised by the commenters, we have not attempted to identify all commenters in instances where more than one comment makes the same point.

[16] The participants in the How Group submitted a report entitled *Consensus Comments of the Wholesale Electric Power Industry* on behalf of the ''industry management process (interim) on how to implement transmission services information networks?''

[17] For example, a number of smaller public utilities and non-public utilities have argued that they should be exempted from the OASIS requirements. The Open Access Final Rule provides that public utilities may seek waivers of some or all of the requirements of the Open Access rules. This would include the OASIS requirement. Similarly, the Open Access Final Rule provides that non-public utilities may seek waivers of the tariff reciprocity provision as applied to them.

[18] This title differs slightly from the title we suggested for this document in the RIN NOPR. We are making this change to reflect more accurately the contents of the document as it has evolved.

additional recommendations on those technical issues remaining to be resolved. After receiving this report, we will hold a technical conference. In the meantime, to enable utilities to begin the process of implementing their OASIS, we will publish the standards and protocols that have been developed to date.

We must also provide for the contingency that, over time, the standards and protocols may need to be revised. To this end, NERC, in its comments, proposed to continue the industry-based process for developing OASIS requirements begun by the two industry working groups. NERC argued that the Commission should abandon its intention to approve standards developed by industry-wide consensus and to make decisions in those areas where consensus is not achieved. Instead, NERC argued that the Commission should authorize an industry group, facilitated by NERC and EPRI, to set and enforce detailed standards under broad policy guidelines fixed by the Commission.

As we have needed the contributions of the industry to develop the standards and protocols, we will continue to need that assistance in the future to develop a consensus wherever possible. We need to strike a balance between standardization to make OASIS work and encouraging innovation. To this end we encourage all industry participants to continue seeking consensus and reporting proposals to the Commission for our consideration. We welcome the continued work of *all* industry participants on revising and improving standards and establishing appropriate methods for recommending standards in the future. We will continue to give careful consideration to all consensus recommendations presented by the industry group(s), provided that they continue to invite balanced participation in an open process.

However, we reject entirely the notion that the Commission need not approve the *Standards and Protocols* and that these matters can be left to the industry for implementation and self-policing. Although we continue to seek industry consensus, the Commission must reserve final decisions to itself. We cannot turn over the process of approving and enforcing OASIS requirements to the industry. The Commission does not believe that resolution of the outstanding issues or future changes will occur more quickly without Commission oversight.[19] Nor do we believe that merely by announcing broad policy guidelines we would be creating a mechanism that would be sufficient to allow the Commission to revise regulations quickly. Accordingly, we will not abdicate our responsibility to decide these issues ourselves; nor shall we delegate responsibility for making these decisions to anyone else.

With respect to the as yet unresolved technical issues, we invite the How Group to report to us on or before May 28, 1996 on these issues (and to attach any comments it has received from any interested person with opposing views). Prior to issuing a revised *Standards and Protocols* document, we will hold a technical conference on these issues on June 17, 1996. This short time frame is necessary if the OASIS is to be properly operational by November 1, 1996.

The Commission recognizes that the standards and protocols necessarily will evolve over time. The Commission is committed to a process for reviewing and, if necessary, revising and improving the *Standards and Protocols* on a regular basis after implementation. We are sensitive to the fact that business practices and technology will continue to change under open access and that a mechanism to make changes to the regulations and to the accompanying standards and protocols on an expedited basis may be needed. It would be premature at this time, however, to determine the appropriate mechanism for making such changes, because the method could vary depending on the type of change contemplated. In filing its report, we ask that the How Group advise us on this issue. We will welcome discussions and comments on mechanisms for revising the standards and protocols on an ongoing basis at the June 17, 1996 technical conference.

In the sections that follow, we discuss, section-by-section, the regulations we are adopting with this final rule; how the costs of implementing the requirements of these regulations are to be recovered; and the details of implementation.

*C. Section 37.1—Applicability*

This section is unchanged substantively from what we proposed in the RIN NOPR. As proposed previously, the rules in Part 37 apply to any public utility that owns or controls facilities used for the transmission of electric energy in interstate commerce.[20]

In proposing these regulations, we stated that issues relating to potential gaps in providing comparable open access to wholesale transmission services or to transmission information that may arise because the requirements do not apply to non-public utilities would be addressed in the Open Access rulemaking proceeding. We also invited comment on whether the Commission should extend OASIS requirements to non-public utilities that own or control facilities used for the transmission of electric energy in interstate commerce (Question 45) and on whether the reciprocity condition of the proposed Open Access rule dictates that a non-public utility should have an OASIS (Question 46).

Comments

The responses to Question 45 split along industry lines. Generally, public utilities subject to OASIS rules advocated that the Commission should impose OASIS requirements on non-public utilities. They argued that applying OASIS requirements to non-public utilities would promote competition and a ''level playing field.'' These commenters argue that all companies should pay the costs of developing and operating an OASIS and should be required to divulge information to their competitors on it.

Along these lines, Allegheny argued that, in order to provide a level playing field between public utilities and their competitors, the proposed standards of conduct should be expanded to include personnel of any entity that trades on an OASIS. Allegheny suggested, therefore, that the standards of conduct be rewritten to be applicable to non-public utilities through a requirement that they sign confidentiality agreements as a condition of obtaining access to OASIS.

Those favoring applying OASIS rules to non-public utilities argued that a significant portion of the wholesale transmission market is owned by non-public utilities (ConEd estimates that non-public utilities, excluding cooperatives, control about 25 percent of the circuit miles of transmission lines nationwide). They argued that, without information about these lines, accurate calculations of available transmission capability cannot be made. However, those advocating that the Commission should assert jurisdiction over non-public utilities were divided between those who maintained that the Commission has authority to do so directly under § 311 of the Federal

[19] To the contrary, our experience with the natural gas pipeline industry persuades us that an expedited schedule is more likely with active Commission oversight than otherwise.

[20] We are, however, modifying this provision to clarify that it is intended to include public utilities that ''operate'' facilities used for the transmission of electric energy in interstate commerce. We are also clarifying that these regulations apply to transactions performed under the *pro forma* tariff required in Part 35 of the Commission's regulations.

Power Act (FPA)[21] and those who maintained that the Commission does not have such authority. The latter group suggested that the Commission's authority is not clearcut and, to avoid needless delay and litigation, the Commission should rely on the reciprocity condition in the *pro forma* tariffs to extend OASIS requirements to non-public utilities.[22] ConEd argued that we should state that compliance with OASIS requirements is required by both § 311 and reciprocity.

The larger non-public utilities argued that, while the Commission lacks authority to impose OASIS rules under § 311 of the FPA, they nevertheless will voluntarily comply with the rules because this would be in their own best interest. By contrast, a number of small non-public utilities argued that they should be exempt from OASIS rules, particularly the standards of conduct, for the same reasons that smaller public utilities argued that they should be exempted from the requirements of the Open Access Final Rule. The smaller non-public utilities stressed that they do not ''control'' many of their transmission lines and that many of their lines lack commercial interest. They recommended the development of a joint or regional OASIS that would make participation in an OASIS easier and argued that, as to smaller non-public utilities, the rules requiring a separation of functions are unduly burdensome and their scant benefits would be outweighed by their costs to consumers.

NRECA argued that the availability of transmission service under § 211 of the FPA is sufficient to prevent abuses. By contrast, Com Ed argued that Commission orders in § 211 proceedings come too late to prevent abuses.

In Question 46 of the RIN NOPR, we asked whether, based on reciprocity, we should require non-public utilities to develop or participate in an OASIS.[23] The responses to this question generally are split along the same lines as the responses to Question 45, with non-public utilities pointing out that most would participate voluntarily in an OASIS because it would be in their best interest to do so.

APPA asserted that voluntary participation would suffice to accomplish the Commission's goals and seeks assurance that compliance with OASIS requirements by non-public utilities would be deemed by the Commission to satisfy the reciprocity condition in the *pro forma* tariffs. APPA also asserted that participation in a regional OASIS would make compliance easier for non-public utilities and would help them deal better with operational issues such as parallel flows. At the same time, NE Public Power District argued that, although it is willing to participate in an OASIS voluntarily, the Commission lacks authority to compel publicly-owned non-public utilities to comply with OASIS regulations.

In contrast, a number of public utilities maintained that non-public utilities cannot provide comparable open-access non-discriminatory service unless they comply with the same OASIS rules as do public utilities. PJM argued that, although public utilities and non-public utilities differ in their ownership, this does not provide a rational basis to exclude non-public utilities from participation in an OASIS. Carolina P&L argued that the same concerns that motivated the Commission to propose the standards of conduct dictate that the rules should apply equally to non-public utilities.

Others argued that, if non-public utilities need not comply with the same OASIS rules applicable to public utilities, the non-public utilities would have the benefit of an uneven playing field that would give them a competitive advantage. Along these lines, EGA argued that, in pursuing a competitive wholesale market, the Commission should apply OASIS rules equally to all entities that own wholesale transmission facilities. Mid-American stressed the need for reciprocity by pointing out (as others did in response to Question 45) that a significant portion of wholesale transmission facilities nationwide, including some in pivotal areas, are owned by non-public utilities. VEPCO urged that any entity that owns transmission facilities, is affiliated with an entity that owns transmission facilities, controls transmission facilities through a lease or contract, or signs a contract for transmission services, should be required to establish or participate in an OASIS that is compatible with the industry standards established by the Commission in the final rule in this proceeding as a condition of being eligible to use a Transmission Provider's OASIS.

OK Com stated that it would support the Commission's assertion of jurisdiction over non-public utilities, provided that the Commission makes a finding that the non-participation of a transmission owning entity in an OASIS would have a substantial detrimental impact on potential customers attaining open-access non-discriminatory service throughout the Nation. Com Ed argued that the Commission needs to ensure that non-public utilities do not circumvent the rule by making purchases and sales through intermediaries.

Larger non-public utilities, such as Public Generating Pool, suggested that the participation of larger non-public utilities is much more important, in terms of promoting competition in the wholesale market, than is participation by smaller non-public utilities, whose systems are predominantly small distribution systems that are not essential to the larger regional power market. Public Generating Pool proposed that small non-public utilities should be able to seek an exemption and that regional transmission groups should decide whether it is necessary for a small non-public utility to participate in the regional OASIS. Public Generating Pool also suggested that, if the Commission prefers, decisions as to who is required to implement an OASIS could be based on objective factors, such as market share or concentration. Other non-public utilities, such as Seattle and Tallahassee, stress the need for flexibility (in providing sufficient time for compliance and in allowing deviations from the rule) in any requirement that non-public utilities make changes to their system.

Discussion

After reviewing these comments we have concluded that we will not directly assert jurisdiction over non-public utilities under § 311 of the FPA to ensure compliance with OASIS requirements. We will, instead, rely on the reciprocity provision of the *pro forma* tariff that requires a non-public utility to offer comparable transmission service to the Transmission Provider as a condition of obtaining open access service. If a non-public utility chooses to take open access service, and therefore is subject to the tariff reciprocity condition, it will need to meet the OASIS requirements in new Part 37, unless the Commission grants a waiver of this condition. Although, as pointed out by ConEd, non-public utilities control a significant percentage of the circuit miles of transmission lines nationwide, and fully accurate calculations of available capacity on public utilities' lines cannot be made without information about these lines,

[21] 16 U.S.C. § 825j. Section 311 authorizes the Commission to obtain information (and conduct appropriate investigations) about, among other matters, the transmission of electric energy throughout the United States, regardless of whether such transmission is otherwise subject to the Commission's jurisdiction, and to report to Congress the results of any investigations it carries out under the authority of this provision.

[22] *See* discussion of Question 46, *infra*.

[23] The discussion of questions 45 and 46 by commenters often overlapped.

we believe reciprocity provides a sufficient incentive for non-public utilities to meet the OASIS requirements imposed on public utilities.

We note that in our Open Access Final Rule we have concluded that certain of the requirements we are imposing on public utilities may not be appropriate for small utilities. This conclusion applies equally to the treatment of small public utilities and small non-public utilities. Accordingly, we have established a mechanism in the Open Access proceeding that allows small public utilities and small non-public utilities to seek waivers based on the same criteria.[24]

*D. Section 37.2—Purpose*

Section 37.2 sets out the fundamental purpose of this part—to ensure that all potential customers of open access transmission service have access to the information that will enable them to obtain transmission service on a non-discriminatory basis. Comments in response to the RIN NOPR did not take issue with the proposed language of § 37.2 and we are adopting this provision largely without change.

We wish to clarify, however, that while the OASIS requirements imposed by this final rule establish a mechanism by which Transmission Customers may reserve transmission capacity, they do not require the replacement of existing systems for scheduling transmission service and conducting transmission system operations at this time. We believe that it may be appropriate to include energy scheduling as part of the OASIS requirements developed for Phase II. In the meantime, if we conclude that an existing system is operated in an unduly discriminatory manner, we will pursue changes to such a system in a separate proceeding.

*E. Section 37.3—Definitions*

This section defines six terms used throughout this Part—''Transmission Provider'', ''Transmission Customer'', ''Responsible Party'', ''Resellers'', ''Wholesale Merchant Function'', and ''Affiliate''. The comments in response to the RIN NOPR did not take issue with the proposed definitions.[25] Consequently, this final rule adopts these definitions largely without change. To prevent confusion, the definition of Transmission Customer has been revised to include potential customers, *i.e.*, those who can execute service agreements or can receive services as well as those who actually do so. And, we have modified the definition of ''Affiliate'' to more closely track provisions of the FPA and the Public Utility Holding Company Act.

*F. Section 37.4—Standards of Conduct*

This section sets out the standards of conduct necessary to ensure that Transmission Providers do not use their unique access to information unfairly to favor their own merchant functions, or those of their affiliates, in selling electric energy in interstate commerce. Although preserving the substance of what was proposed, the final rule has been reorganized.

Paragraph (a) sets out the general rules that require the separation of transmission and merchant functions and that recognize in emergency circumstances system operators may take whatever steps are necessary to keep the system in operation.

Paragraph (b) sets out the specific rules governing employee conduct under five headings covering prohibited practices, transfers of employees, access to information, disclosure, and conduct in implementing tariffs. These provisions correspond to elements of paragraph (a), as well as paragraphs (b) through (h) and (j) of the standards proposed in the RIN NOPR.

Paragraph (c) requires that there be written procedures implementing the standards of conduct and that these must be kept in a public place and filed with the Commission. Paragraph (c) corresponds to paragraph (k) of the standards proposed in the RIN NOPR.

In the RIN NOPR, the Commission proposed standards of conduct for public utilities patterned after those promulgated for natural gas pipelines.[26] The proposed standards of conduct would require Transmission Providers to separate their wholesale merchant functions (*i.e.*, wholesale purchases or wholesale sales of electric energy in interstate commerce) from their wholesale transmission system operations and reliability functions. Employees performing wholesale merchant functions would be required to obtain information on wholesale transmission services only through an OASIS, on the same basis available to all other OASIS users. The standards of conduct were intended to prevent employees of the Transmission Provider that perform wholesale merchant functions or employees of any affiliate from having *preferential* access to any relevant information about the Transmission Provider's wholesale transmission availability and costs, or uses or possible uses of the Transmission Provider's transmission system by non-affiliates.[27]

We accompanied this proposal with two questions that asked whether the proposed standards of conduct should be modified and whether they sufficiently addressed functional unbundling (Questions 41 and 42). We also asked whether our proposal might interfere with system reliability (*see* Question 43).

The responses basically fell into three categories.[28] First, a number of smaller public utilities argued that they should be granted waivers (or be deemed exempt) from the proposed standards of conduct because these standards would compel them to hire additional staff not justified by their small market share or by the small revenues they derive from providing wholesale transmission services. These comments suggested that the standards should not apply to public utilities that lack operational control over the facilities used for wholesale transmission service, or to public utilities that do not exceed given thresholds for market share, percent of revenues, or total revenues from wholesale transmission services.

Second, a number of large utilities basically were satisfied with the proposed rules and offered specific suggestions for revisions. Third, commenters raised the issue of whether to require the separation of generation

[24] Open Access Final Rule at section IV.K.

[25] MidAmerican Energy suggested, however, that a definition for ''Transmission System Operator'' be added. We will not do so because we do not use this term anywhere in the OASIS regulations. MidAmerican's purpose in making this suggestion may have been to exclude the posting on the OASIS of transactions involving the use of transmission for purchases made for native load (this issue was also brought up by CCEM, EGA, MidAmerican, NYPP, and NIEP). We address the issue of native load purchases in the Open Access Final Rule.

[26] In the RIN NOPR, the proposed standards of conduct were set out in § 37.6. *See* RIN NOPR text at section III.E (60 FR at 66196) and the proposed regulation at 18 CFR § 37.6 (60 FR at 66199). We are renumbering this provision as § 37.4 in this final rule.

[27] Because the Open Access Final Rule pro forma tariff may include certain retail transmission customers, this final rule's OASIS information requirements will apply to applicable retail as well as wholesale services and information.

[28] Among the over 100 comments filed, only Dayton P&L, among public utilities, questioned the Commission's underlying authority to mandate control room unbundling. Dayton P&L's short conclusory statements in this proceeding were not accompanied by even a cursory explanation of its reasoning or by any legal analysis or supporting citations.

Although Dayton P&L offered no support for its position in this proceeding, it did (along with other parties) devote extensive discussion to the more general issue of the Commission's authority to order open access transmission in its initial comments in the Open Access rulemaking proceeding. We reject Dayton P&L's unsubstantiated conclusion, urged in this proceeding, that we lack authority to order control room unbundling for the same reasons that we reject their more general and more extensive arguments on the Commission's authority in the Open Access Final Rule. *See* Open Access Final Rule at section IV.B.

and transmission functions.[29] We discuss these three categories below.

1. Requests by Smaller Public Utilities for Waivers From the Standards of Conduct

Turning first to the arguments of smaller public utilities that they should be exempt from the standards of conduct, we note that this issue also arose in the Commission's Open Access rulemaking proceeding. As described in the Open Access Final Rule, we will publish a list of jurisdictional public utilities that must comply with these rules. At the same time, we establish a mechanism that allows small public utilities to seek a waiver. In appropriate circumstances, the Commission would waive some or all of the Open Access requirements, subject to future reconsideration as warranted by circumstances.[30]

A related issue involves the concerns of small non-public utilities about their obligation under the reciprocity condition. We have decided in the Open Access rulemaking proceeding that we would use these same criteria to decide whether a small non-public utility should be granted a waiver from all or part of the reciprocity condition contained in public utility open access tariffs. Such waivers could be sought of the requirements to have open access tariffs, provide ancillary services, establish an OASIS, or separate functions.

A full explanation of the waiver mechanism is contained in the Open Access Final Rule.[31] We will use these same standards to determine whether small public utilities have complied with the OASIS requirements and to determine whether small non-public utilities have met their contractual obligation to comply with OASIS requirements as a condition of service under open access tariff reciprocity provisions.

2. Suggested Revisions to the Standards of Conduct and Timing

For the most part, we have adopted the standards of conduct as proposed, making technical and conforming revisions. In a few instances, in response to comments, we have made substantive changes. These changes, and the suggestions that led us to make them, are discussed below, along with some suggestions that we rejected.

1. As proposed, the regulations would prohibit preferential access to the system control room and ''other facilities of the public utility'' that differs from the access available to other potential transmission users. AEP suggested that it is not clear whether this was intended to restrict access to *all* other facilities or is meant to restrict access to other *similar* facilities, (*i.e.*, those facilities that, like the control room, are involved in transmission operations and reliability functions). Consistent with this latter interpretation, AEP suggested that the restriction be modified to apply to the system control room and ''similar facilities used for transmission operations or reliability functions.'' We agree with AEP's interpretation of the scope of this restriction and adopt the suggested revision in section 37.4(b)(1)(ii) of the final rule.

2. Section 37.4(c) of the proposed standards of conduct would prohibit contacts (off OASIS) between employees of the public utility engaged in transmission system operations and employees of the public utility engaged in wholesale marketing functions, and employees of any affiliate no matter how employed. AEP, Com Ed, and Ohio Edison argued that this provision is too broad and would exclude contacts between transmission system operators and employees of affiliates engaged in various activities, many of which are unrelated to a public utility's merchant functions. For example, an energy services subsidiary might be engaged in building a power plant in a foreign country. AEP argued that there would be no reason to deny employees engaged in such an activity access to utility personnel involved in transmission or reliability functions. Com Ed suggested that this provision should be modified to prevent contacts between system operators and employees engaged in wholesale marketing functions, regardless of whether those marketing employees are engaged in those activities on behalf of either the utility or its affiliates. Thus, under this argument, contacts between system operators and affiliate employees not engaged in wholesale marketing functions would not be prohibited.

We agree with AEP, Com Ed, and Ohio Edison that our proposed standards of conduct were overly broad because they prohibited contacts between system operators and affiliate employees engaged in functions completely unrelated to a public utility's wholesale power and energy marketing functions. We will revise the proposed standards of conduct accordingly.

AEP also argued that employees of the affiliate may be involved in the wholesale merchant function, but not in the utility's market area. For example, an employee of an affiliate might be involved in a different geographic area, far from the system's transmission grid. AEP argued that there would be no need to isolate such activities from the utility's transmission operations. To cover such situations, AEP suggested that the language be modified to read ''employees of any affiliate of the public utility, to the extent that such employees are engaged in wholesale merchant functions in the utility's market area.''

We reject AEP's suggestion. Although public utilities may still have the ability to exert market dominance in particular markets, they also will now have the ability to participate in transactions across the nation. We fully expect—and our experience with the WSPP demonstrates—that in the move to a competitive wholesale bulk power market, public utilities will have extensive market areas in which to make offers. Thus, there is no reason to limit the scope of the standards of conduct as recommended by AEP.

We also have clarified section 37.4(b)(3)(i) to explain that employees engaged in merchant trading functions must not have preferential access to any information about the Transmission Provider's transmission system that is not available to all users of an OASIS. However, the standards of conduct do not foreclose customers, including merchant employees, from obtaining information about the status of their particular contracted for transaction from Transmission Provider employees engaged in system operation and reliability functions. The information provided in status reports must present the same types of information, in the same level of detail, to any customer presenting a similar request. The standards do, however, preclude merchant employees from obtaining preferential access to information about

[29] A number of comments raised the issue of whether the OASIS regulations would promote ISOs (independent system operators) and whether participation in an ISO would exempt an entity from compliance with OASIS requirements. In this regard, a number of comments suggested that the proposed standards of conduct will result in the widespread transfer of transmission functions to the control of ISOs and predicted that the need for the standards of conduct will diminish as ISOs become more prevalent. In this context, IN Com supported the formation of ISOs, because this would reduce the need for state commissions to monitor functional unbundling and would help in resolving jurisdictional questions.

The concept of ISOs is addressed in the Open Access Final Rule. As to the prediction that the rise in the number of ISOs will make the standards of conduct unnecessary, or should offer a basis for an exemption from the standards of conduct, we would characterize the potential of ISOs somewhat differently. In our view, a properly constituted ISO could be a mechanism, not for an exemption, but as a means to comply with the standards of conduct.

[30] Open Access Final Rule at section IV.K.

[31] *Id.*

the Transmission Provider's system (not directly linked to their particular transaction) from any nonpublic source as well as market information acquired from nonaffiliated customers or potential nonaffiliated customers or developed by the Transmission Provider in its role as a Transmission Provider (except to the limited extent that this information is required to be posted on the OASIS).[32]

3. APPA argued that the rules should prohibit preferential treatment of wholesale purchases or sales by any utility. APPA interpreted the originally proposed language to mean that preferential treatment would be permitted, as long as the preference would not be extended to the public utility itself or an affiliate. APPA and Com Ed argued that preferential treatment of any wholesale customer over the interests of any other wholesale customer must not be allowed. Com Ed adds that absent clarification, relationships of reciprocal favoritism could develop in the industry, to the detriment of all other customers.

We find this contingency is possible. While the standards of conduct set guidelines for Transmission Providers and their affiliates in handling their wholesale merchant functions; public utilities are also governed by section 205(b) of the Federal Power Act. Section 205(b) prohibits public utilities from granting any undue preference or advantage to any person or subjecting any person to any undue prejudice or disadvantage with respect to any transmission or sale subject to the jurisdiction of the Commission. This provision remains in full force and effect and prohibits preferential treatment in transactions regardless of whether those transactions are specifically addressed in the standards of conduct.

4. In section 37.6(i) of the RIN NOPR we proposed that public utilities offer customers discounts comparable to those that the public utility offers to its own power customers or those of an affiliate. AEP suggested that this limitation on allowable discounts be expressly limited to discounts on wholesale transmission services. We agree and are revising this provision accordingly. Discounts for jurisdictional power sales are not governed by this final rule but by section 205(b) of the FPA and related precedent on power sales.

5. Allegheny suggested that the Commission should find that there will no longer be a presumption of discriminatory dealing between utility affiliates in generation and transmission services when network owners comply with the standards of conduct. Allegheny has presented no basis for making such a finding and we decline to do so.

6. Com Ed, Duke, and NEPOOL suggested that the proposed standards should not be interpreted to prevent employees of the utility engaged in wholesale marketing functions from obtaining information about their competitors from non-affiliated third party sources such as the trade press. Com Ed also suggested that the utility should be allowed freedom to give out information about its transmission functions off OASIS (*e.g.*, in briefings at public meetings) as long as the utility's wholesale marketing employees do not obtain *preferential* access to those forums. Ohio Edison suggested that the proposed standards of conduct should be revised to preclude only ''substantive access'' to the system control room. Ohio Edison argued that access for matters unrelated to transmission matters, such as training programs, should be permitted.

We have two points we wish to make regarding these related suggestions. First, we clarify that the rules do not prohibit access to information contemporaneously available without restriction to other members of the general public. (*See* section 37.4(b)(1)(ii) dealing with access to information). Second, these rules are intended to be interpreted consistent with common sense, prudence, and caution.

Our standards of conduct are intended to prevent preferential access to information related to transmission prices and availability by employees of the public utility or any affiliate engaged in wholesale merchant functions. Preferential access means that information is obtained from those with access to information about the public utility's transmission system operations that is not equally available to other customers. It is obvious, at least to us, that this does not bar wholesale merchant employees from reading the trade press or from sitting in the audience of a publicly-announced and available lecture delivered by the public utility's transmission operator or a third party in an open forum. However, the onus is on the public utilities subject to these standards to conduct their affairs in compliance with these rules, and they should exercise care and prudence in so doing.

We decline, therefore, to specify in these regulations whether, for example, a ''public meeting'' must be preceded by advance notice, to whom that notice must be provided, and what that notice would need to spell out. We do not believe that it would be appropriate to burden our rules with this kind of minutiae in a misplaced effort to anticipate every possible contingency. Such regulatory overkill is unwarranted and counterproductive. Moreover, those subject to the regulations may, like other members of the public, call the Enforcement Task Force Hotline to obtain informal advice on implementing the standards of conduct.

7. VEPCO suggested that, rather than prohibiting contacts between system operators and employees of the public utility and any affiliates engaged in wholesale merchant functions, the Commission could reach the same result by allowing system operators to disclose, through informal communications, information about the status of the transmission system, provided that they then post this information on OASIS.

We find this suggestion untenable. First, such disclosures would necessarily be posted after-the-fact, and thus the information would not be conveyed to all potential customers at the same time. Second, such a provision would be very difficult to enforce. Third, the same information could just as easily be divulged on the OASIS to all customers, rather than ''reported'' on the OASIS after-the-fact.

8. Com Ed suggested that the reference in subsections (a) and (d) of the proposed standards to ''reliability functions'' should be clarified to apply only to transmission functions and not to generation functions. We disagree. As discussed below, system operations and reliability functions include both transmission and generation functions.

9. Con Ed suggested that the standards of conduct should include a disclaimer that utilities will not be liable for the reliability or accuracy of data posted on the OASIS as an accommodation to third parties. We agree that the responsibility for assuring the reliability and accuracy of data supplied by third parties rests with those third parties and not with the public utility that posts this information on the OASIS as an accommodation. We do not, however, view this as a standard of conduct issue. Instead, we address this point in our discussion of what information is to be posted under § 37.6(g).

10. Ohio Edison suggested that posting the names of personnel transferring between departments would make these employees targets for recruitment by competitors. Notwithstanding this concern, we believe that this information must be posted on the OASIS to make possible

[32] *See* § 37.4(b)(4)(iii); *see* text accompanying n. 33, *infra*.

''gaming of the system'' through spurious revolving door tactics more visible.

11. Ohio Edison also suggested that the phrase in subsection (b) of the proposed standards ''* * * must rely upon the same information relied upon by the public utility's wholesale transmission customers'' should be modified to read ''* * * must have available only the same information available to the public utility's wholesale transmission customers.'' Ohio Edison argued that the Transmission Provider has no way of knowing what information its customers ''relied upon'' and that it should not be held to an undefinable subjective standard. We agree. Accordingly, we adopt Ohio Edison's suggestion in section 37.4(b)(3)(i) of the final rule and omit the phrase ''rely upon.''

12. Ohio Edison also suggested that if its suggestion (in the previous item) is adopted, then the language in section 37.4(b) beginning with the language in parenthesis becomes redundant and should be deleted. We disagree and will retain that language in section 37.4(b)(3)(ii) of the final rule. We believe the language adds necessary clarification.

13. Montana Power suggested that, if off-OASIS communications between the utility's system operators and wholesale marketing personnel are prohibited, these kinds of communications should also be prohibited between system operators and all transmission users. Montana Power would prefer, however, that these communications be permissible. Likewise, Duke suggested that we change the regulations so that if an employee of an unrelated third party calls the transmission-related employees, for example, to better understand the public utility's transmission system, such communications should be permitted to be conducted off the OASIS. Duke maintains that the free flow of information should not be discouraged so long as functional unbundling is implemented and affiliate abuse is avoided. NEPOOL suggested that the rules dictating the Transmission Provider's release of information should apply to all Transmission Customers, not just to the Transmission Provider's employees, as affiliates, engaged in wholesale merchant functions.

Our proposed standards of conduct were designed, and our final standards are being implemented, to prevent Transmission Providers from giving themselves an undue preference over their customers through the exchange of ''insider'' information between the company's system operators and employees of the public utility, or any affiliate, engaged in wholesale marketing functions. Thus, the rules place restrictions on preferential communications from the system operators to only those merchant employees. The rules were not designed to prevent system operators from having communications with third parties. We do not generally see this as an area that needs regulatory oversight. As discussed above, we have revised the regulations to ensure no discriminatory treatment and we remind public utilities subject to these regulations that section 205(b) of the FPA prohibits undue discrimination. This should suffice.

14. NUSCO suggested that the Commission should distinguish: (1) The functional separation of generation marketing related to operation of the transmission system and administration of transmission tariffs (which are relatively short-term activities); from (2) the coordination of marketing with the system planning function (a long-term activity encompassing both generation and transmission). Similarly, the FL Com is concerned that the standards of conduct might impede system reliability, and argued that marketers and system operators should be able to confer concerning the company's long-term planning activities that require knowledge about the company's generation and transmission systems. NEPOOL expresses similar concerns.

By contrast, Com Ed suggested that the proposed standards of conduct will not impair planning because, like a one-way street, they allow information to be conveyed from employees engaged in merchant functions to system operators, while at the same time prohibiting information to be conveyed in the opposite direction. Com Ed submitted that the inter-relationship between the areas of strategic planning, resource planning and long-range transmission planning require the flow of information to transmission personnel. Future acquisitions of capacity may constitute a resource taken into account in planning and may have an impact on the transmission system that needs to be accounted for by transmission planners. Thus, Com Ed argued that there should be no restriction on the flow of information about future purchases or sales from the merchant function to the transmission function, although restrictions on the flow of information to the merchant function should be adopted as proposed.

We agree with Com Ed that, as we proposed in the RIN NOPR, the flow of information, through the OASIS, from employees engaged in wholesale merchant functions to system operators should remain permissible, to allow proper system planning, while at the same time restricting information being conveyed off the OASIS from system operators to utility and affiliate employees engaged in wholesale merchant functions, to prevent preferential access to transmission information. Consequently, we reject the proposals offered by NUSCO, FL Com, and NEPOOL in this regard.

15. Omaha PPD argued that information regarding the scheduling of power transfers, economic dispatch, and economic conditions have nothing to do with the information that is needed regarding the availability of transmission capability. Omaha PPD suggested, therefore, that any information relating to economic operation or the commercial state of a utility be removed from the standards of conduct. By contrast, NUCOR suggested that, since economic dispatch is premised on real-time marginal production cost data and generating unit economics, the comparability standard mandates that utilities provide the same generation cost data to other market participants. Similarly, NUCOR argued that, because economic dispatch also is dependent on the economics of off-system purchases and sales, data pertaining to such purchases and sales also must be made generally available.

Except for postings for certain ancillary services, the RIN NOPR did not propose the posting on an OASIS of data on generation and we are not persuaded, at this juncture, to do more. Our decision is based on a balancing of the need for the information, the claimed commercial sensitivity of the information, and the desire to avoid, to the extent possible, having public utilities reporting generation data that their competitors may not be required to report.

16. VEPCO suggested that the regulations should prohibit system operators from disclosing information to wholesale marketing employees or other customers about the ancillary services offered by third parties because they are not permitted to disclose the same information about their companies' own products. VEPCO further suggested that the prohibition against discussing the companies' own products should be removed.

We find these suggestions inconsistent with the kinds of safeguards we are trying to provide through these standards of conduct. In any event, as discussed below in our discussion of items to be posted on the OASIS, we are requiring that this kind of information be posted on the OASIS, and thus companies will be able to get

their message out that these services are available.

17. Duke suggested that the proposed subsection dealing with the impartial application of tariff provisions should be revised to make clear it is the customer (and not the employees) who is to be treated on a fair and impartial basis. We agree and the final rule in section 37.4(b)(5)(ii) adopts this suggestion.

18. VEPCO suggested that the rules requiring a separation of functions should be suspended if additional employees trained in system operations (but normally assigned to marketing functions) should be needed to assist in handling system operation functions during emergencies affecting system reliability. VEPCO also suggested that the Commission should allow transmission and generation operators to engage in emergency energy transactions and hourly non-firm energy transactions.

It is not the purpose of these rules to compromise reliability. In emergency circumstances affecting system reliability, system operators may take whatever steps are necessary to keep the system in operation. Consequently, we are adding a provision to the standards of conduct that specifically grants system operators the authority to take whatever steps are necessary to maintain system reliability during an emergency, notwithstanding that this could otherwise constitute a violation of the standards of conduct. Transmission Providers will be required to report to the Commission and on the OASIS each emergency that resulted in any deviation from the standards of conduct, within 24 hours of such deviation. If we see a pattern of activities that suggested that ''emergencies'' are not authentic, we will take strong action against the offending public utilities.

Because we are adding a provision that allows actions to be taken in response to emergencies, we are deleting the phrase ''to the maximum extent practicable'' that had appeared in section 37.6(a) of the standards of conduct proposed in the RIN NOPR.

19. Continental Power Exchange argued that, just as merchant traders should be prohibited from access to the control center, system operators should be prohibited from access to the trading floor. United Illuminating agreed that separation of functions needs to apply to separation of transmission and customer supply functions. Continental Power Exchange also suggested that discounts should be offered unilaterally to all customers without prior notice and without two-way negotiation. Continental Power Exchange further suggested that short-term transactions should be deemed approved upon request, unless the utility specifically notifies the customer that the transaction will be denied. Continental Power Exchange argued that this would streamline the proposed procedures and make OASIS transactions faster and more manageable.

We will not, at this time, adopt Continental Power Exchange's suggestion to create an absolute prohibition against system operators having access to the trading floor because we are concerned about information divulged by system operators and not about information acquired by them. However, any non-public contacts between system operators and merchant traders creates the risk that there will be improper communications between these employees and the burden is on Transmission Providers subject to the standards of conduct to devise procedures that will prevent improper contacts. We expect, therefore, that the Transmission Providers themselves will devise procedures that will either prohibit or, at a minimum, severely restrict access to the trading floor by system operators.

As to Continental Power Exchange's other suggestions, we will not adopt these suggestions at this time, but may come back to them as the process evolves and the feasibility of back and forth negotiations is tested by experience.

20. SoCal Edison and Tucson Power suggested that, while the proposed 60-day deadline for filing procedures to implement the standards is adequate, the Commission needs to be flexible on implementing other changes, such as reconfiguring and relocating control rooms and other facilities, and training and recruiting new employees.

Although we originally proposed to require compliance with the standards of conduct starting 60 days from the publication of this final rule, on further consideration we have decided to put off the requirement that they be implemented until the implementation of OASIS, that is by November 1, 1996. As a practical matter, the standards of conduct cannot be implemented apart from the electronic communication systems of a functioning OASIS; the two work together. In addition, the extra time will permit utilities the opportunity to fully implement the requirements of the standards of conduct. Although the result will be a window of time during which open access transmission tariffs will not be supported by standards of conduct (or OASIS), we must recognize that the changes we are mandating for the industry cannot be implemented overnight; a transition period is required.

21. Finally, after a review of the comments, we have added an additional provision to the standards of conduct (section 37.4(b)(4)(iii) of the final rule) dealing with the posting of any additional market information developed by a Transmission Provider in its role as a Transmission Provider and shared with employees of its, or an affiliate's, merchant function.

We have expressed concern in a number of recent orders about the possibility of the dissemination of market information by a public utility with market-based rate authority.[33] To guard against the possibility of affiliate abuse, we have required such public utilities to commit in their codes of conduct with affiliates to share market information only if they make the same information publicly available to non-affiliates at the same time. We have not dictated the means by which public utilities are to make this information simultaneously available to all.

This same concern for the unequal distribution of market information, in a manner that may benefit select recipients with commercial or competitive information that is not equally available to others, leads us, after a review of the comments, to extend the standards of conduct to cover any market information gathered by Transmission Providers in the course of responding to transmission or ancillary service inquiries.

Our concern, based in part on our experience with implementing and monitoring electronic bulletin boards developed for use by the natural gas pipeline industry, is that there remains the incentive for a Transmission Provider to share with its own merchant employees, or those of an affiliate, any information it has developed (not limited to transmission system information) in responding to requests made over the OASIS. This is particularly a concern with respect to market information developed in the course of denying a request for transmission service.

While we have developed procedures dealing with the obligations of Transmission Providers in responding to requests for service, we believe that these procedures, alone, may not be sufficient to eliminate the possibility of an unfair competitive advantage to employees of the Transmission Provider

[33] *See, e.g.*, Illinova Power Marketing, Inc., 74 FERC ¶ 61,313, *slip op*. at 4–6 (1996); USGen Power Services, L.P., 73 FERC ¶ 61,302 at 61,845 (1995).

(or an affiliate) engaged in merchant functions, by virtue of access to market information not shared with others.

Accordingly, we will add to the standards of conduct a provision that precludes a Transmission Provider from sharing market information acquired from nonaffiliated Transmission Customers or potential nonaffiliated Transmission Customers or developed in the course of responding to requests for transmission or ancillary service. In this manner, we can be better assured that employees of the Transmission Provider or an affiliate engaged in merchant operations do not develop a competitive advantage by virtue of operation of an OASIS. The Transmission Provider may only reveal information about transmission requests as provided in the provisions of this rule (section 37.6 (e)) dealing, generally, with responses to transmission and ancillary service requests and, specifically, with transaction confidentiality (except to the limited extent that this information is required to be posted on the OASIS).

3. Whether To Require the Separation of Generation and Transmission Functions

In the RIN NOPR we proposed standards of conduct that would require Transmission Providers and their affiliates to separate system operation and reliability functions from wholesale merchant functions. Both transmission and generation functions are included within system operation and reliability functions. The RIN NOPR, notwithstanding Questions 42 and 43, did not propose that these functions (transmission and generation) be separated. Nor did we propose that Transmission Providers divest their ownership of generation assets.

We received numerous comments in response to our questions 42 and 43 that asked whether, if the Commission would go beyond unbundling transmission and generation merchant functions to order the unbundling of generation and transmission operations, this would necessitate revision of the proposed standards of conduct and whether this would adversely affect reliability.[34] After reviewing the comments, we conclude that we should require—with these final rules—only the unbundling of the transmission operations and wholesale marketing functions of public utilities and their affiliates, as proposed in the RIN NOPR. We do not extend these rules to require the unbundling of transmission and generation control functions or to mandate the divestiture by Transmission Providers of their generation assets.

We will require the functional unbundling of transmission operations and wholesale marketing functions because we are persuaded that this will prevent abuses based on preferential access to information and other discriminatory behavior, without compromising system reliability. The standards of conduct are designed to accomplish this: (a) By requiring that transmission-related information be made available to all customers (including employees of the public utility, and any affiliate, engaged in merchant functions) through OASIS postings available to all customers at the same time and on an equal basis; and (b) by prohibiting the employees of Transmission Providers and any affiliates from disclosing (or obtaining) non-public transmission-related information, through communications not posted on the OASIS.

*G. Section 37.5—Obligations of Transmission Providers*

This section of the final rule adopts, without substantive change, the provisions proposed as section 37.4 (Standardization of Data Sets and Communication Protocols) and section 37.5 (Obligations of Transmission Providers) in the RIN NOPR. The final rule requires, in paragraph (a), that a Transmission Provider must provide for the operation of an OASIS either individually or jointly with other Transmission Providers and it must do so in accord with the requirements of Part 37. Paragraph (b)(1) requires that the OASIS must give access to relevant standardized information pertaining to the status of the transmission system as well as to the types and prices of services. Finally, in paragraph (b)(2), the rule requires that the OASIS must be operated in compliance with the protocols set out in the publication, *OASIS Standards and Communication Protocols.*

In the RIN NOPR, we explained that each Transmission Provider would be responsible for compliance, regardless of whether it establishes its own OASIS or participates in a joint OASIS.[35] The final rule does not change this. In a related provision, we proposed, in § 37.1, that Part 37 would apply to any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce. However, as noted by many commenters, it is quite probable that individual public utilities may turn the operation of their transmission system and information system over to an ISO or other joint or regional entity. (This has been provided for in the definition of the term ''Responsible Party''). This raises the issue of the Commission's jurisdiction over such entities.

Under section 201(e) of the FPA, a ''public utility'' means,

> Any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part (other than facilities subject to such jurisdiction solely by reason of section 210, 211, or 212).[36]

To the extent that anyone is given control and decision making authority over the transmission operations of a public utility's transmission facilities, it clearly would ''operate'' public facilities, within the meaning of section 201(e), and therefore would be subject to the Commission's jurisdiction.[37] To the extent that a public utility turns over its operations to an ISO or any other joint entity to satisfy the Open Access and OASIS requirements, the ISO or any other entity would fall within the definition of a ''public utility'' under § 201 of the FPA and thus would be subject to the OASIS regulations of Part 37.

*H. Section 37.6—Information To Be Posted on an Oasis*

In the RIN NOPR, we proposed, in sections 37.7 through 37.14, rules governing: (1) The information that must be posted on an OASIS; (2) the procedures for the posting and updating of information on the OASIS; (3) the posting of discounts; (4) procedures for Transmission Providers to respond to customer requests for transmission service; (5) procedures for communicating denials of requests for service and curtailments; and (6) the posting of information about scheduling and affiliate transactions. These

[34] The commenters nearly universally focused their presentations on why the Commission should not order an unbundling of generation and transmission operations, rather than addressing the precise topic we set out. In any event, the issue is now moot, as we have decided not to order Transmission Providers to separate their generation and transmission operations at this time. If, however, with experience we discover that the steps we are ordering here are not adequate to remedy undue discrimination, we can revisit this issue.

[35] NRECA commented that the Commission should ensure that expenses by a joint OASIS are subject to the Commission's jurisdiction and audit authority. We agree. We will treat this as a normal ratemaking expense issue and will allocate such costs on a case-by-case basis when such expenses are presented to us for our review.

[36] 16 U.S.C. § 824.

[37] *See, e.g.,* Bechtel Power Corporation, *order granting declaratory order and disclaiming jurisdiction,* 60 FERC ¶ 61,156 at 61,572 (1992) (on control issue), and FPC v. Florida Power & Light Company, 404 U.S. 453 (1972) (on defining jurisdictional facilities).

provisions have been consolidated and are now covered in § 37.6 of the regulations adopted by this final rule.

As discussed in more detail below, section 37.6 has eight paragraphs. Paragraph (a) lists the objectives of an OASIS. Paragraph (b) lists what must be posted for public transmission capability—that is, available transmission capability (ATC) and total transmission capability (TTC)—as well as how and when this information is to be updated. Paragraph (c) sets out the requirements for posting transmission service products, including resold capacity as well as their prices. Paragraph (d) provides the same for offerings of ancillary services. Paragraph (e) sets out the requirements for posting transmission service requests and responses including service denials and curtailment or interruption of transmission. Paragraph (f) provides requirements for posting transmission service schedules. Paragraph (g) deals with posting other transmission-related communications. Finally, paragraph (h) sets out the requirements for auditing information.

Some of the proposed provisions have not been adopted. These include requirements concerning an application procedure for requesting transmission service (§ 37.9(b)(5) of the proposed regulations); requirements imposed on the reseller to notify the Transmission Provider of certain information (§ 37.9(c)(3) of the proposed regulations); and the steps that must be followed by the Transmission Provider and Requester in their negotiations (§ 37.12 of the proposed regulations). These did not prescribe information that must be posted; rather, they were concerned with how parties should conduct business in an open access environment. These matters are considered in the Open Access Final Rule.

1. OASIS Objectives (§ 37.6(a))

The Commission proposed five objectives for the OASIS in the RIN NOPR.[38] Few comments were received on these objectives; none were substantive. Thus, we adopt these objectives without substantive revision in the final rule.

2. Posting Transmission Capability (§ 37.6(b))

a. ATC for Network Integration Service. The RIN NOPR discussed requiring the posting of available transmission capability for network service. As we acknowledged in the RIN NOPR,[39] before-the-fact measurement of the availability of network transmission service is difficult. Nonetheless, it is important to give potential network customers under the Commission's *pro forma* tariff (as discussed in the Open Access Final Rule)[40] an easy-to-understand indicator of service availability. To this end, the Commission requested comments on how best to post the availability of network transmission service on the OASIS (Question 3).

NERC reiterated the statement in the What Group report that ''it does not seem possible to post the availability of Network Integration Transmission Service'' on an OASIS. No other commenter disagreed.

NERC went on to describe some of the challenges involved with calculating available transmission capability (ATC) for network integration service. Network service is a complex, long-term relationship between a requester and provider that must be investigated in detail because it involves the specification of multiple points of receipt or delivery or both. Because of the long-term nature of network service, the planning process involves a complex interrelationship of future loads and resources, with an impact on the network that is extremely location dependent. A major difficulty in estimating network ATC is the lack of specific locations for which to calculate an impact on the network. Each network service request would be unique, with different sets of integrated loads and generating stations affecting the network, including its constrained paths, differently.

The Commission also asked if there were any alternative service that is more suitable to measurement than the current version of network service. Some commenters said that it might be possible to devise a concept which supports better measurement of network-like service availability, but devising and implementing such a new concept within the proposed initial implementation time line for OASIS is not feasible. The Commission is not, at this time, persuaded to require the posting of ATC for network service.

b. Minimizing the Reporting of ATC (§§ 37.6(b) (1) and (3)). In the RIN NOPR, the Commission requested comments on ways to minimize the burden of ATC calculations, while ensuring that wholesale Transmission Customers have the information they need (Question 5).

Commenters suggested a number of ways to minimize the reporting of ATC, including less frequent updates, developing standardized methods for calculating ATC, and encouraging regional efforts. Most of the comments discussed ways to limit the number of paths for which ATC has to be posted.

The What Group proposed that ATC be posted only for paths as ''business needs'' arise. This proposal was intended to limit the number of paths for which ATC must be posted. A ''business need'' was defined, in part, by a Transmission Customer requesting information about a path. A number of commenters supported the proposal to limit paths based on ''business need.''[41]

The Commission suggested in the RIN NOPR a different approach to the problem. Calculating ATC and updating frequency could be based, instead, on the level of activity and constraints on a given path. This approach was supported by a number of commenters.[42] A number of commenters wanted to leave to the Transmission Provider the decision of which paths to post ATC.[43]

Detroit Edison, Oklahoma G&E and PSNM suggested that customers could also identify paths, along with a process for deleting them. NEPOOL and Detroit Edison stated that they will post ATC for all control area interfaces and any internal constraints. The Western Group had a similar proposal.

NE Public Power District, NERC and NSP commented that ATCs should be posted only for constrained paths. PJM and WP&L proposed that, for unconstrained paths, static numbers or limits could be used and would be updated infrequently. VEPCO suggested that paths be coded by the quality of the ATC calculation used and that high quality effort be used only when ATC is less than 25 percent of the total transmission capability. ConEd suggested that posting could be sorted by frequency of update so that busier paths would be at the top of the list.

Dayton P&L suggested mandatory information on ATC be limited to: (1) Identification of the interface; (2) firm and non-firm ATC (hourly for the current day, daily for the next seven

[38] *See* RIN NOPR text at section III.C (60 FR at 66188) and the proposed regulation at 18 CFR 37.7 (60 FR 66200).

[39] *See* RIN NOPR text at section III.C (60 FR at 66188).

[40] *See* Open Access Final Rule at sections IV.G and IV.H.

[41] *See, e.g.,* Arizona, ConEd, NEPOOL, NE Public Power District, NERC and Western Group comments.

[42] *See* Basin EC, Duke, NE Public Power District, Tallahassee, Union Electric, and VEPCO comments. Only Arizona said it was a bad idea because it would be too subjective and confusing.

[43] *See* Central Illinois Public Service, Detroit Edison, Omaha PPD, PSNM, Texas Utilities, Union Electric, and VEPCO comments.

days, weekly for the next four weeks, monthly for the next 12 months); and (3) price for each service.

MAPP summarized the issue well when it stated ''[t]he burden of ATC calculations will be determined by the number of paths for which ATC is being calculated and posted, the accuracy needed and the frequency of required update.''

The proposed regulations have been modified to implement the alternative approach suggested by the Commission in the RIN NOPR. The regulations in § 37.6(b)(1) define the paths for which ATC and TTC must be posted. These are called ''posted paths.''

A transmission path becomes a ''posted path'' in one of three ways. First, ATC and TTC must be posted for any path between two control areas. Second, posting is required for any path for which transmission service has been denied, curtailed or subject to interruption during any hour or part of an hour for a total of 24 hours in the last 12 months. In counting up to 24, curtailment for any part of an hour counts for a whole hour. Finally, Transmission Customers can request that ATC and TTC be posted for any other transmission path. Customer requested postings may be dropped if no customer has taken service on the path in the last 180 days.

The regulations in § 37.6(b)(3) define two classes of posted paths based on usage: ''unconstrained'' and ''constrained''. A constrained posted path is one for which ATC has been less than or equal to 25 percent of TTC for at least one of the last 168 hours or is calculated to be 25 percent or less of its associated posted TTC during the next 7 days. An unconstrained posted path is any posted path that is not a constrained posted path.

For constrained posted paths, ATC and TTC for firm and non-firm service would have to be posted for the next 168 hours and, thereafter, to the end of a 30-day period. In addition, ATC and TTC for firm and non-firm service must be posted for the current month and the next twelve months. However, this monthly posting for ATC and TTC for non-firm service is required only if requested by a customer. If the Transmission Provider charges separately for on-peak and off-peak periods in its tariff, ATC and TTC will be posted daily for each period. A posting for a constrained posted path must be updated when transmission service on the path is reserved or service ends or when the path's TTC changes by more than 10 percent.

For an unconstrained posted path, ATC and TTC for firm transmission service and non-firm transmission service would be required to be posted for the next seven days and for the current month and the next twelve months.[44] If the Transmission Provider charges separately for on-peak and off-peak periods in its tariff, ATC and TTC will be posted for the current day and the next six days following for each period. Postings for an unconstrained posted path must be updated when the ATC changes by more than 20 percent of the path's TTC.

We will not require ATC and TTC to be posted on the OASIS more than thirteen months in advance, with the following exception. If planning and specific requested transmission studies have been done, seasonal capability shall be posted for the year following the current year and for each year following to the end of the planning horizon, but not to exceed 10 years.

c. Methodology for Calculating ATC and TTC (§ 37.6(b)(2)). In the RIN NOPR, the Commission discussed the requirements for calculating ATC and TTC.[45] Recognizing that formal methods do not currently exist to calculate ATC and TTC, the Commission requested comment on how to develop a consistent, industry-wide method of calculation (Question 4).

Most commenters recommended that the Commission defer to NERC regarding the development of a consistent, industry-wide method of calculation. NERC, in turn, recommended that the Commission give deference to NERC's ongoing, industry-wide effort. NERC's Transmission Transfer Capability Task Force (TTC Task Force), with an expanded roster to include representation from all segments of the electric industry, was formed to develop uniform definitions for determining ATC and related terms. Because the TTC Task Force will not be finished with its assignment until May 1996, NERC recommended that the OASIS final rule not contain specific definitions of terms such as ATC, but instead be limited to a general framework within which the same information can be made available to all transmission users at the same time.

The Commission encourages industry efforts to develop consistent methods for calculating ATC and TTC. Consequently, the final rule follows the proposed regulations in requiring that ATC and TTC be calculated based on a methodology described in the Transmission Provider's tariff and that it be ''based on current industry practices, standards and criteria.'' (Section 37.6(b)(2)(i)).[46]

As provided in the *pro forma* tariff, Transmission Providers may themselves purchase only transmission capability that is posted as available. This requirement should create an adequate incentive for them to calculate ATC and TTC as accurately and as uniformly as possible.

d. Accommodating Flow-Based Pricing. In the RIN NOPR, the Commission asked for comment on what requirements would have to be changed if the electric power industry moves to regional pricing, flow-based pricing, or other pricing models that depart from the ''contract path'' approach (Question 2).[47]

Many commenters expressed the need for OASIS flexibility to support both contract path and actual flow models.[48] Com Ed stated that, so long as the OASIS is flexible, appropriate postings involving ATC, price, and related information will develop for use with tariffs using flow-based pricing.

The Commission concludes that the proposed regulations were general enough to accommodate flow-based pricing methods. Therefore, we have provided no special provision regarding flow-based pricing in the final rule. Any OASIS-related issue that arises when flow-based proposals are made can be dealt with at that time. We cannot accurately foresee what issues may arise concerning flow-based pricing because this is an evolving area.

e. Actual Flow Data. The RIN NOPR proposed the posting of actual path flow data to better inform Transmission Customers about the true network impacts of taking service on a contract path basis.[49] The Commission asked whether there are any difficulties, technical or otherwise, associated with posting actual path flows (Question 20).

In response, commenters stated that such posting is technically difficult, but possible. However, they question the value and usefulness of such postings.[50]

[44] The terms ''firm point-to-point transmission service'' and ''non-firm point-to-point transmission service'' are defined in the definition section of the *pro forma* tariff for point-to-point service.

[45] *See* RIN NOPR text at section III.C (60 FR at 66188) and the proposed regulation at 18 CFR 37.9(b)(2) (60 FR 66200).

[46] The *pro forma* tariff in the Open Access Final Rule provides that Transmission Providers must develop a method for calculating ATC and TTC and must include a description of this methodology in their tariffs.

[47] *See* RIN NOPR text at section III.C (60 FR at 66186).

[48] *See, e.g.,* Consumers Power, Basin EC, ERCOT, NEPOOL, PA Com, How Group, NIEP, NYPP, NERC, Ohio Com, OK Com, Oklahoma G&E, PSNM, Texas Utilities, Western Group, PacifiCorp, and PJM comments.

[49] *See* RIN NOPR text at section III.C (60 FR at 66191).

[50] *See, e.g.,* Allegheny, Arizona, Central Illinois Public Service, Carolina P&L, Florida Power Corp,

Commenters stated that information on actual path flows is voluminous, excessive, and burdensome to post.

Allegheny stated that actual flow information could be commercially sensitive depending on the degree to which a generator's output can be determined from it. Oklahoma G&E stated that actual flows are meaningless unless accompanied by voltage, line thermal limits, and line first contingency incremental transfer capability. NERC commented that actual path flow postings would be irrelevant or even misleading to the Transmission Customer and should not be required. NERC added, however, that the Commission should not preclude such postings either. The How Group pointed out that, from a technical standpoint, posting actual path flows significantly increases the level of detail in information about transmission service. APPA answered that some regions already have the capability to post actual flows, but functional separation diminished the need for the Commission to require the posting of actual flows.

The final rule does not require the posting of actual path flows. As long as ATC and TTC are calculated to reflect network conditions, including parallel path constraints, actual flow data need not be posted. The Commission may reassess this issue after reviewing the proposals of the TTC Task Force on methods for calculating ATC and TTC expected in May 1996.

f. Providing Supporting Information (§ 37.6(b)(2)(ii)). In the RIN NOPR, we proposed that public utilities must post all data used in calculating the ATC and TTC and make such data publicly available.[51] The Commission received a number of comments on this proposal.

A majority of commenters stated that supporting data should not be available on the OASIS.[52] About half of the commenters argued that the data should be available off-line.[53] Others suggested that procedures and software used in calculating ATC and TTC must be posted.[54] NYPP suggested that a bibliography of supporting information should be maintained on the OASIS.

Having this information available is essential for building and maintaining trust in the information posted on the OASIS. Transmission Providers generally seem willing to provide this information after-the-fact and off-line. Since this information would be used only after-the-fact and can be voluminous, the final regulations require that ATC and TTC supporting information be made available by the Responsible Party within one week of posting, on request, in their original electronic format and at the cost of reproducing the materials. A requirement specifying how long the information must be retained also has been added.

g. Long-Term Studies (§ 37.6(b)(2)(iii)). The RIN NOPR proposed that any planning or specifically requested studies of the transmission network performed by the Transmission Provider be posted on a same-time basis.[55] This would include only those parts of customer-specific interconnection studies that relate to network impacts.

The majority of commenters responded that transmission planning studies should not be posted on the OASIS. ConEd and MAPP suggested an index to be maintained on the OASIS. NEPOOL, Tallahassee, and Montana Power suggested that summaries should be maintained on the OASIS.

As with the ATC supporting information, having this information available is essential for building and maintaining trust in the ATC and TTC posted on the OASIS. Since this information would be used only after-the-fact and can be voluminous, the final regulations require that final transmission studies be available from the Responsible Party on request in original electronic format and at the cost of reproducing the materials. A list of available studies is to be posted on the OASIS. A requirement specifying how long the studies must be retained also has been added.

3. Posting Transmission Service Products and Prices (§ 37.6(c))

Paragraph 37.6(c) of the regulations adopts several of the proposed provisions. It requires Transmission Providers to post prices and a summary of the terms and conditions of transmission products. In addition, Transmission Providers must provide a downloadable file of their complete tariffs. Furthermore, customers who use an OASIS to resell transmission capacity must submit relevant information about their resale transactions to the Transmission Provider for posting to the same OASIS as used by the Transmission Provider in originally offering that capacity. As proposed in the RIN NOPR, the Transmission Provider must post this information about resales on the same display page, using the same tables, as similar capacity being sold by it. Similarly, the information must be contained in the same downloadable files as the Transmission Provider's own available capacity. A customer who does not use an OASIS to arrange a resale of transmission capacity must, nevertheless, inform the original Transmission Provider of the transaction within the time limits prescribed by the ''Sale or Assignment of Transmission Service'' section of the *pro forma* tariff.

The proposed standards of conduct required a Transmission Provider that offers any discount on behalf of its power customers or those of an affiliate, to post offers for similar service containing comparable discounts, at the same time, to all Transmission Customers.

As to discounts that the Transmission Provider has agreed to give to any Transmission Customer (affiliated or unaffiliated), the Commission proposed requiring that these discounts be posted within 24 hours after the agreement is entered (measured from when ATC is adjusted in response to the agreement), and that they remain posted for 30 days. The Commission sought comment on whether all transmission discounts should be posted on the OASIS, or only those provided to the Transmission Provider or its affiliates (Question 14).

Most commenters, including representatives with diverse interests such as APPA, EEI, Continental Power Exchange, EGA, EEI, NIEP, and NRECA, argued that discounts must be made available to all customers. NRECA especially, was concerned about the potential for selective discounting. The Ohio Com, clearly concerned about allowing Transmission Providers to negotiate privately, asked that we clarify how discounting would work, and EGA raised some practical concerns about how the Commission's proposal would work. EGA asked whether, when a discount is offered to an affiliate, discounts must be offered to others on the same path, all paths, or only paths needed to get to the buyer to whom the affiliate is selling. This issue is addressed in the Open Access Final Rule, which concludes that such

Montana Power, NERC, Omaha PPD, Texas Utilities, Union Electric, and VEPCO comments.

[51] *See* RIN NOPR text at section III.C (60 FR at 66190) and the proposed regulation at 18 CFR 37.9(b)(6) (60 FR 66200).

[52] *See, e.g.,* Allegheny, Central Illinois Public Service, Continental Power Exchange, EPRI, Florida Power Corp, MAPP, NERC, NE Public Power District, NYPP, Ohio Edison, PSNM, VEPCO, Western Group, and WP&L comments.

[53] *See, e.g.,* Allegheny, ConEd, Detroit Edison, Duke, EPRI, Idaho, MAPP, NEPOOL, NE Public Power District, Ohio Edison, PSNM, VEPCO, and Western Group comments.

[54] *See, e.g.,* Duke, EPRI, Idaho, PSNM, Western Group comments.

[55] *See* RIN NOPR text at section III.C (60 FR at 66191) and the proposed regulation at 18 CFR 37.8(c) (60 FR 66200).

discounts must be offered to all customers on all unconstrained paths.

Several commenters were against discounting, but would accept discounts if they were made available to all customers.[56] Several commenters agreed with the proposal to require posting of discounts offered to affiliates and delaying the reporting of discounts to others.[57] However, CCEM wants to change the 24-hour delay period to 30 days.

SCE&G and Union Electric would allow discounting but not post them on the OASIS. Central Hudson would post only affiliate discounts. SMUD argued that selective discounting is good and stated that, if public utilities must offer discounts to everyone, no discounts would be offered to anyone.

The question of whether discounts may be offered is discussed in the Open Access Final Rule.[58] If a Transmission Provider offers a discount for transmission service to its own power customers or those of an affiliate, it must, at the same time, post on the OASIS an offer to provide the same discount to all eligible customers on the same path and on all unconstrained transmission paths. As to discounts for ancillary services, if a Transmission Provider offers a rate discount to an affiliate, or attributes a discounted ancillary service rate to its own transactions, the Transmission Provider must, at the same time, post on the OASIS an offer to provide the same discount to all eligible customers. If a Transmission Provider offers discounts to non-affiliates, it must offer to do so on a basis that is not unduly discriminatory. Any discounts under § 37.6(c)(3) offered to affiliates or to the Transmission Provider's own power customers must be posted on the OASIS when they are offered pursuant to § 37.4(b)(5)(v). Discounts offered to non-affiliates must be posted within 24 hours of when ATC is adjusted in response to the transaction.

4. Posting Ancillary Service Offerings and Prices (§ 37.6(d))

Transmission Providers are required to post on the OASIS information about all ancillary services required by the Open Access Final Rule to be provided or offered to customers.[59] A Transmission Provider may, at its discretion, post information on the OASIS about other interconnected operation services, offered by itself or third parties, that are not services required by the Open Access Final Rule to be offered to customers. However, if a Transmission Provider elects to post these optional services for any party, including itself, then it must post on its OASIS, for a reasonable cost based fee, the same type of information about comparable optional ancillary services offered by third parties.

In the RIN NOPR, we proposed the posting of price and other information about ancillary services.[60] We requested comment on: (1) The information needed about ancillary services (Question 12); (2) how often the information should be updated (Question 13); and (3) where on the information network offers of ancillary services by entities other than the Transmission Provider should be placed (Question 9).

While there is near consensus among commenters on the need to update ancillary services information as it changes, there is widespread disagreement on what information about ancillary services should be posted and where on the OASIS offers by other entities to provide ancillary services should be placed. Some commenters request that the Commission allow flexibility because the information requirement may depend upon the industry structure that develops in response to the Open Access Final Rule. NERC asserted that it is impractical to expect the initial OASIS to be the vehicle for posting information on the availability and price of all ancillary services.

Ancillary service providers are required to post all pertinent information about their ancillary service offerings (*e.g.*, a description of the service being offered, its availability, and its price) so that Transmission Customers may compare offers and decide which offer best suits their needs. Information about ancillary services should be updated as it changes. Postings by customers and third parties should be on the same page, and in the same format, as postings of the Transmission Provider.

5. Posting Transmission Service Requests and Responses (§ 37.6(e))

Section 37.6(e) requires that all requests by customers for transmission service that the Transmission Provider offers under the *pro forma* tariff must be made on the OASIS. The Responsible Party is required to provide to others on the OASIS the essential information relating to such requests, with the identity of the parties masked, if requested. Additionally, the section sets out the steps that must be followed in processing such requests, including the posting of curtailments, interruptions, or denials of service.[61] The final OASIS regulations require that a record of transactions not resulting in agreements also be kept for audit purposes. We now discuss some special issues arising under this provision and the comments relating to those provisions.

a. Posting Curtailments and Interruptions (§ 37.6(e)(3)). We proposed requiring that, when a transaction is curtailed, a Transmission Provider must post the reason that the transaction was curtailed and the available options, if any, for adjusting the operation of the Transmission Provider's system to increase transfer capability in order to accommodate the transaction.[62] Since scheduling and the curtailment of schedules would not be done through the information network initially, this curtailment data would be for information purposes only.

The Commission requested comments on what information about curtailments should be communicated on an OASIS (Question 7). Only Union Electric, among the commenters who answered this question, argued against posting information about curtailments or recording this information in an audit file. Among those who supported posting or recording, the differences were in how much information should be provided, where the information should be placed, and who should have access to the information.

The comments expressed support for a Transmission Provider setting out in its tariff, or elsewhere, curtailment or interruption rules or constraint relief protocols.[63] This would let a customer know what to expect when there is a constraint and would allow the Transmission Provider to be held to a formal set of procedures. Then, when a curtailment occurs, postings on the OASIS can refer to steps and reasons defined in the curtailment procedures.

Many commenters agreed that at least some basic information about curtailments needs to be posted or documented in the audit file. Several commenters pointed out that there may

[56] *See* ERCOT, MidAmerican, NUCOR, and Public Generating Pool comments.

[57] *See* CCEM, OK Com, and Tallahassee comments.

[58] *See generally* Open Access Final Rule at sections IV.D and IV.G.

[59] *See generally* Open Access Final Rule at section IV.D.

[60] *See* RIN NOPR text at section III.C (60 FR at 66190).

[61] The Open Access Final Rule discusses curtailments at section IV.G and provides that a company's curtailment policy is to be described in its tariff.

[62] ''Curtailments'' are service cutbacks made for system reliability reasons and are distinguishable from ''interruptions'', which are made pursuant to tariff conditions.

[63] *See* APS, NERC, and NIEP comments.

be some lag before these postings are placed on the OASIS because control room personnel may need time to determine and resolve the problem.[64] Some commenters believed that these postings should be made available only to those curtailed.[65]

The proposed regulations addressed curtailments and denials of service together. In this final rule, denials are distinguished from curtailments of service. Transmission Providers are not required to offer options for making capacity available to those curtailed, but if options are offered, they must be offered to curtailed and interrupted customers at the same time.

As discussed in the Open Access Final Rule, transmission tariffs must include rules for curtailment and interruption of service, including clear steps or stages in the process for relieving constraints, and transmission service agreements must clearly identify the service's priority relative to concurrent services. Consistent with these requirements, the final rule here provides that, when curtailments or interruptions take place, they must be posted as soon as possible and must include identification of the service (with the identity of the customer masked), the reason for the curtailment or interruption, and the tariff-defined step in the curtailment and interruption process. In the event that an emergency situation affecting system reliability delays this posting, the posting must be made as soon as practicable thereafter along with an explanation for the delayed posting.

Curtailments and interruptions will be recorded for audit purposes. This audit data should contain enough information about the timing of superseding requests and changes in ATC to document the reason for a curtailment or interruption. The final rule also provides that customers have the right to request an explanation of the reason for a curtailment or interruption.

b. Posting Denials of Requests for Service (§ 37.6(e)(2)). In the RIN NOPR, we proposed requiring that, when requests for service are denied, Transmission Providers must communicate to Transmission Customers through the OASIS: the reason(s) that the transaction(s) could not be accommodated; and the available options, if any, for adjusting the operation of the Transmission Provider's system to increase transfer capability to accommodate the transaction(s). The Commission requested comments on what information about denials of requests for service should be communicated on an OASIS (Question 7).

As with curtailments, only Union Electric out of the commenters who answered this question opposed posting information about denials of service on the OASIS or recording this information in an audit file. Many commenters agreed that at least some basic information about denials should be posted. Some commenters believed that these postings should be available only to those denied service.[66]

Service can be denied for two basic reasons: either (1) the customer requested more than the posted ATC or (2) after the request for service was made, conditions changed due to preexisting requests or unforeseen events reducing capacity. Denials should be handled as part of the request and response process. A requester should receive a standardized reason for denial as part of the response. Denials would not be posted. Instead, denials must be recorded for audit purposes and maintained as provided in section 37.7(b). This data should contain the information about a denial needed to explain the reason for a denial. Under the final rules, customers have the right to request an explanation of the standardized reason for a denial.

c. Transaction Anonymity (§ 37.6(e)(3)(i)). In the RIN NOPR, we proposed that, generally, information concerning negotiations on transmission requests need not be posted unless an agreement to provide the transmission is reached.[67] This information would be available only after-the-fact in the audit file. In addition, if an agreement is reached, the identity of parties to transmission transactions would be masked until 30 days after the date when the Transmission Provider's ATC was adjusted in response to the transaction. (This might be after the date when service begins). After that date, all transaction data would be made available. In addition, we proposed that transmission transaction prices be included in the information in the audit file. Price information concerning cost-based transmission services would not be considered commercially sensitive.

The Commission requested comment on what information should be considered commercially sensitive, the 30-day release period proposal, and on how and when commercially sensitive information should be released to concerned parties before the standard release period and whether affiliated transactions should be treated differently (Question 24).

Several commenters agreed that information about negotiations that do not reach agreement should not be reported.[68] No commenter argued for making this information public.

A number of commenters supported the 30-day delay on providing commercially sensitive information.[69] Several, however, thought the information should be provided as soon as possible.[70] Others thought it should be provided quarterly.[71] WP&L proposed a 60-day delay. Dayton P&L said that the delay should depend on contract length. Union Electric suggested a delay of 30 days after the transaction begins and not after the ATC is adjusted.

Commenters split on the question of whether price data are commercially sensitive.[72] Commenters listed several items as commercially sensitive that were proposed to be posted. These are ATC supporting information,[73] transmission schedule information,[74] generation run status,[75] amount provided,[76] terms and conditions,[77] and duration.[78]

NE Public Power District argued for full disclosure of all but generator information because, as a public entity, it must disclose such information. NIEP stated that comparability should be the ruling principle in information disclosure.

The final rule adopts the NOPR proposal and provides that the identity of parties to an agreement are confidential during ongoing negotiations and for 30 days from the time ATC is adjusted. Although not explicitly required in the new Part 37, the price of services offered on and

[64] *See* Allegheny, Com Ed, CSW, NERC, NRECA, and SCE&G comments.

[65] *See, e.g.,* Allegheny and Central Illinois Public Service comments.

[66] *See* Allegheny and Central Illinois Public Service comments.

[67] *See* RIN NOPR text at section III.C (60 FR at 66191) and the proposed regulation at 18 CFR 37.14(d) (60 FR 66201).

[68] *See, e.g.,* Allegheny, Detroit Edison, El Paso, NorAm, and OK Com comments.

[69] *See* Allegheny, CCEM, El Paso, Oklahoma G&E, PJM, PSNM, and Western Group comments.

[70] *See* APPA, Continental Power Exchange, MidAmerican Energy, and NIEP comments.

[71] *See* Arizona, ConEd, and NorAm comments.

[72] EGA, NUCOR, NRECA, Omaha PPD, and PJM supported the proposition that the data are not commercially sensitive. Arizona, Central Illinois Public Service, Detroit Edison, OK Com, PSNM, Seattle, and Western Group argued that the data are commercially sensitive.

[73] *See* Carolina P&L and El Paso comments.

[74] *See* Central Illinois Public Service and OK Com comments.

[75] *See* Allegheny, Carolina P&L, CSW, Detroit Edison, EGA, NE Public Power District, and PJM comments.

[76] *See, e.g.,* Allegheny and WP&L comments.

[77] *See* Central Illinois Public Service comments.

[78] *See* Allegheny comments.

agreed to through the OASIS are not considered commercially sensitive.[79]

6. Posting Facility Status Information

The RIN NOPR discussed the fact that the ATC of some transmission paths depends on generator run status or megawatt output, or both, as well as on other system elements.[80] We proposed requiring Transmission Providers to post information about those system elements that have a direct and significant impact on ATC. Such elements could include generators, transmission lines, phase shifters, series and shunt capacitors, static VAR compensators, special protection systems or remedial action schemes. We, therefore, requested comment on whether it is sufficient to provide information only about planned outages and (for both planned and forced outages) return dates for system elements deemed to have a direct and significant impact on ATC and whether posting this information would cause any confidentiality concerns (Question 18). We also requested comment on how ''significant and direct impact'' should be defined (Question 19).

Additionally, we requested comment on whether it would be sufficient to post the changes to ATC corresponding to the planned outage or return dates of generators (Question 21); and whether, if operating guides, nomograms, operating studies, and similar information were posted, the run status of those generators with a significant and direct impact on ATC could be deduced (Question 22).

Comments

A number of commenters stated that the posting of facility status information should not be a requirement.[81] These commenters reasoned that the posted ATC and TTC values would reflect facility status impacts and that posting status information therefore would be unnecessary and burdensome, and would render the information network unmanageable. With regard to generator status and outage information, a number of respondents argued that generator status and outage-related information is commercially sensitive and confidential.[82] They stated that posting generator-related information would give an unfair advantage to competitors. Some opposing the posting of generation-related information also added that the Commission's proposed standards of conduct would make it unnecessary to post this information because the Transmission Customer's and the Transmission Provider's wholesale marketing functions would rely on the same information.[83] A number of Transmission Providers believed that facility status data can be archived and made available for after-the-fact audits.[84]

A second group of commenters believed that facility status information should be posted on the OASIS.[85] With regard to generator status and outage data, Seattle responded that planned generator outage data should be updated as it changes and that an explanation of the impact of typical outage configurations should be made available to all transmission users in advance. APPA stated that the run status (on-line or off-line) of any generating unit should not be kept confidential. APPA argued that keeping such information confidential, under the guise of competitive necessity, is an excuse to protect opportunities to game the market. NCEMC stated that, because the transmission user needs to be able to do a reliability and risk assessment of various available power supply sources and transmission paths, it probably is not sufficient to post ATC changes corresponding to generation outages.

A third group of commenters suggested that, while generator status-related information should not be posted, information about transmission facilities with direct and significant impact on ATC and TTC could be posted.[86] There were diverging views among the commenters as to whether posted ATC or TTC values would reveal the run status of generators if operating guides, nomograms, operating studies, and similar information were posted. A number of commenters responded that ATC and TTC are affected by many variables and, even though in some cases it may be possible to deduce the run status of certain generators from the posted ATC or TTC, these deductions would be uncertain.[87]

NERC responded that it may be possible, over time, to recognize patterns and supporting data that would indicate which generator went off-line, but not whether the reason is a planned outage, forced outage, reserve shutdown, or other reasons. NERC explained that a run status so deduced would itself be an estimate and not as commercially sensitive as knowing the reason for that status. Florida Power Corp and Montana Power responded that customers will be able to deduce generation-related information from changes in ATC if guides, nomograms, or studies are posted and, therefore, such information should not be posted.

By contrast, a number of commenters stated that nomograms, derating tables, and operating studies can be used to identify equipment that has a direct and significant impact on ATC and TTC.[88] The Western Group responded that, where study results have been summarized in nomograms, derating tables, and operating guidelines and procedures, these summary forms should be made available as information on the OASIS.

A number of respondents answered that it is not necessary to define ''significant and direct impact'' because ATC and TTC are the only quantities that need to be posted.[89] ConEd stated that the definition of ''significant'' should be consistent with local and regional procedures. Duke and Florida Power Corp commented that the Commission should work through NERC in developing appropriate definitions. NYPP, on the other hand, stated that ''significant and direct impact'' can be determined only on a case-by-case basis. Montana Power defined the term as a reduction of ATC that results in the denial of service. Continental Power Exchange proposed that any system element affecting ATC more than 10 percent should be considered significant. CSW proposed a 50 percent threshold. CSW further proposed to include those elements that can cause a reduction of more than 25 percent of the normal flows across an interface.

[79] We note, in this regard, that § 205(c) of the FPA requires public utilities to have their prices on file with the Commission and available for public inspection.

[80] *See* RIN NOPR text at section III.C (60 FR at 66191).

[81] *See* Allegheny, Central Illinois Public Service, Com Ed, CSW, Dayton P&L, Detroit Edison, Duke, Montana Power, NERC, NYPP, Ohio Edison, PJM, PSNM, Texas Utilities, VEPCO, and WP&L comments.

[82] *See* Allegheny, Arizona, Central Illinois Public Service, ConEd, Carolina P&L, CSW, Dayton P&L, Detroit Edison, Florida Power Corp, NEPOOL, NE Public Power District, NERC, NYPP, Oklahoma G&E, Omaha PPD, PJM, Texas Utilities, Union Electric, VEPCO, and WP&L comments.

[83] *See* Central Illinois Public Service, Carolina P&L, and Ohio Edison comments.

[84] *See* ConEd, CSW, Florida Power Corp, NYPP, Ohio Edison, and PSNM comments.

[85] *See* APPA, CCEM, EGA, NCEMC, NIEP, OK Com, Seattle, Tallahassee, and United Illuminating comments.

[86] *See* Arizona, Dayton P&L, MidAmerican, NEPOOL, PJM, and Western Group comments.

[87] *See* Arizona, CCEM, Central Illinois Public Service, Com Ed, ConEd, CSW, Detroit Edison, NEPOOL, NE Public Power District, VEPCO, and WP&L comments.

[88] *See* APPA, Arizona, CCEM, Idaho, NEPOOL, Oklahoma Com, Seattle, and SoCal Edison comments.

[89] *See* Allegheny, Com Ed, Detroit Edison, NERC, NE Public Power District, Ohio Edison, SCE&G, Texas Utilities, Union Electric, and VEPCO comments.

Discussion

Additional information about the state of the transmission system will enable Transmission Customers to make better decisions about the quality of the transmission service they intend to purchase. However, the development and implementation of Phase I OASIS, in what is a relatively short period of time, requires that we limit the posting requirements of the OASIS to the essentials. We believe that audit data and information required to be provided about the reasons for curtailments and interruptions will make it possible to document unduly discriminatory practices concerning facilities critical to transmission capability. Also, as pointed out by APPA, the standards of conduct that we put in place with this rule lessen the urgency of posting additional information concerning generating unit status and transmission component status. Consequently, the Commission will not require the posting of information about the run status of generation and transmission facilities for a Phase I OASIS. We may reconsider this subject for Phase II OASIS depending on the Phase I experience.

7. Posting Transmission Service Schedules Information (§ 37.6(f))

The final rule consolidates and renumbers §§ 37.14(b) and (c) of the RIN NOPR as § 37.6(f). This provision requires information on scheduled transmission service to be recorded by the entity scheduling the transmission service and requires that the information be made available for download on the OASIS by interested parties. It also provides that postings must be made within one week of the start of the transmission service schedule agreed upon by the parties. The comments in response to the RIN NOPR did not take issue with the proposal. Thus, the provision is adopted without substantial revision.

8. Posting Other Transmission-Related Communications (§ 37.6(g))

Section 37.6(g) basically adopts what we proposed for the posting of ''want ads'' and ''other communications'' in § 37.9(f) of the RIN NOPR. Postings made in this section carry no obligation to respond on the part of any market participant.

This section provides that ''other communications related to transmission services'' (such as using the OASIS as a transmission-related conference space or to provide transmission-related messaging services between OASIS users) and ''want ads'' must be posted by the Responsible Party.

We received comments that urged the Commission to issue a disclaimer to the effect that, although Transmission Providers are responsible for posting other transmission-related communications at the request of third parties, it is the responsibility of the third parties requesting such postings to ensure the accuracy of the information to be posted. We agree that such a disclaimer is appropriate. We provide it in § 37.6(g)(2).

In addition, the final rule requires that transfers of personnel between the transmission and marketing functions are to be posted on the OASIS (§ 37.6(g)(3)). This incorporates the requirements of the standards of conduct at § 37.4(b)(2).

*I. Section 37.7—Auditing Transmission Service Information*

In the RIN NOPR, we proposed procedures that would govern the availability of records about auditing transmission service transactions.[90] The Commission proposed requiring that historical data on postings, updates, and request/response communications be recorded for audit purposes, be downloadable from the OASIS in an appropriate format for 60 days, and be available for download on a rolling basis for three years from entry on the OASIS. These provisions are now contained in § 37.7 of the final rule. However, we have increased the time during which audit data must be available for download from 60 days to 90 days because this provides greater protection to customers.

ConEd suggested that the Commission should provide assurance to Transmission Providers that they will not be liable if they post data under the proposed audit provisions that is considered confidential by their customers. We do not believe that it would be appropriate for the Commission to issue this sort of blanket disclaimer in the absence of any particular facts or controversy. However, to the extent that a Transmission Provider posts data because this is required by the Commission's regulations, the Transmission Provider may, of course, assert this as a defense against any legal action brought against it based on the disclosure.

*J. Standards and Communication Protocols*

In this section, we discuss the major issues raised in response to our proposed standards and protocols. As proposed, these are being issued in the separate *Standards and Protocols* document that we are issuing together with this final rule. As already described, the final rule states explicitly that information is to be posted on the OASIS in conformance with the specifications of the *Standards and Protocols*.

The most recent How Report (filed on April 15, 1996) shows great strides toward reaching consensus on a set of implementable standards. However, it needs to be augmented in two ways.

First, there are some internal inconsistences. For example, there are data elements that appear in the data dictionary that do not appear in the templates and vice versa. The data elements for DUNS numbers that appear in the data dictionary need to be added to the appropriate templates. Data elements for DUNS numbers for resellers need to be added to both the data dictionary and the appropriate templates. The October 16, 1995 How Report contained standards for Transmission Services Information Timing Requirements. The most recent report substantially changed these requirements. We request that the report we are asking the How Group to submit by May 28, 1996 reinstate these requirements or explain why they should be changed.

Second, and not surprisingly, the standards and protocols must now be conformed to the requirements of the final rule. For example, necessary changes include developing file and display templates for curtailments and interruptions, developing file and display templates to place primary and resale capacity on the same displays and in the same downloadable files, and developing file and display templates to place ancillary services provided by the primary provider and others on the same display page and in the same downloadable files.

Under procedures we are instituting today, we expect the recommendations for standards and protocols to be conformed to the requirements of the final rule and for inconsistencies to be corrected in the next few months. We are issuing portions of the standards and protocols now to provide as much information as possible to allow the industry to begin the work of building necessary systems to make their OASIS nodes operational. This information, coupled with the requirements of the Open Access Final Rule and our additional procedures to complete the *Standards and Protocols*, should result in the OASIS nodes being operational

[90] See RIN NOPR text at section III.C (60 FR at 66191) and the proposed regulation at 18 CFR 37.14 (60 FR 66201).

within six months of the publication of this final rule in the Federal Register.

The April 15, 1996 How Report contains references to a yet to be established industry group, the [OASIS] Management Organization, that will maintain a registry of [OASIS] node names and perhaps perform other functions associated with maintaining a functioning [OASIS]. We agree that there is a need for an industry group to maintain a registry of OASIS node names and perform similar functions and expect that such a group will be established by the industry prior to the implementation of the OASIS requirements. The *Standards and Protocols*, therefore, contains a reference to this function. We expect that such a group would be composed of representatives of all segments of the electric industry and we expect to be apprised of the group's activities.

1. Summary of Standards and Communication Protocol Requirements

The *Standards and Protocols*, which we are adopting together with this final rule, require Transmission Providers to make their OASIS nodes accessible through the Internet. Each Responsible Party's OASIS is considered to be a separate node. An OASIS operated jointly by several utilities would be considered one node. By connecting each node through the Internet, transmission service information provided by each utility becomes part of a network.

We are requiring that nodes must support the use of Internet tools. The specific tools are described in the *Standards and Protocols*. OASIS users will access nodes using World Wide Web (WWW) browsers.[91] Each node will display information using the Hypertext Mark-up Language (HTML) protocol required by World Wide Web browsers. Screen displays will consist of a series of pages that may be viewed by customers without requiring the page to be downloaded and viewed by separate software. The information on each page, but not the actual displays, will be standardized. Information must also be made available for downloading, in a standardized ASCII[92] format.

In Phase I, customers will have access to the information required to be posted by this rule and will be able to use the OASIS to reserve transmission capacity. They will be able to request capacity either by completing a standardized form contained in an on-line HTML page or by uploading a filled-out form using HTTP. Customers who want to resell transmission capacity will upload (post) the relevant information to the same OASIS node used by the primary provider from whom they purchased the ATC. Customers will also be able to upload other communications (*e.g.*, Want Ads) containing such information as requests to purchase transmission capacity.

OASIS nodes must provide direct connections to private networks if requested to do so. The cost of the connections will be paid for by the requestor and the networks are required to use Internet tools.

The *Standards and Protocols* contain a model of the information requirements that must be provided at each OASIS node. Customers are limited to obtaining information from HTML text displays and selecting from menus of downloadable files. Customers will receive the information either as HTML pages or as ASCII files in a predetermined form and layout.

For security purposes, and as an aid in auditing performance and transactions, all customers are required to register with the Responsible Party before they are permitted access to the utility's transmission service information on the OASIS. As registered subscribers, they will be allowed to read and download information, make requests for transmission service, place ''Want Ads'' and offer transmission service for resale. Commission staff and staff of state regulatory authorities are to obtain free ''read only'' access to the OASIS and members of the general public will also be provided ''read only'' access to the OASIS for the same usage fee paid by customers, once they have complied with the requisite registration procedures.

Responsible Parties are required to meet a number of performance standards and security precautions. Performance requirements include sizing OASIS nodes to handle the loading of registered subscribers, responding to subscriber requests, backing up the system, and other areas that are necessary for the system to function as desired.

2. Number of OASIS Nodes (Question 35)

The Commission proposed that Transmission Providers be permitted to combine their separate OASIS nodes into a single node. Thus, while there could be as many nodes as there are transmission-owning utilities, if utilities choose to combine together to create joint nodes, we could end up with a small number of nodes.

A small number of nodes would minimize the networking management requirements for the OASIS and would help ensure access to the information systems. On the other hand, the advantages of a small number of separate nodes must be weighed against the greater complexity and size of a joint node that would handle transactions for several large transmission-owning utilities at one node. The Commission requested comments on whether a small or large number of OASIS nodes should be encouraged.

The majority of commenters preferred a small number of nodes, but would not necessarily have the Commission require a small number of nodes.[93] Some commenters advocated regional nodes.[94] PJM speculated that, even if the Commission does not encourage a small number of nodes, economies of scale and market efficiencies will lead to smaller numbers in the normal course of events. The How Group reported that significant consolidation is already occurring:

> it appears there may be 1 node in ERCOT, 13–14 nodes in the Eastern Interconnection, and 6–20 nodes in the Western Interconnection. The resulting 20–35 nodes [nationwide] is a manageable number for Customers maneuvering through the system and at the same time minimizes the impact of possible security breaches or system failures by being sufficiently distributed.[95]

Given these comments, we believe that the question of whether there should be a small number of nodes is one best left to the industry. At this stage, flexibility in such matters is important.

3. Direct Connections to OASIS Nodes (Question 36)

The Commission explained in the RIN NOPR that private networks and third party services can provide valuable contributions to the successful operation of an OASIS.[96] The Commission, therefore, proposed to

[91] The World Wide Web is a system of computer resources that are accessed through the Internet.

A Browser is a computer program for retrieving and reading hypermedia documents from the WWW. A hypermedia document can contain text, graphics, video, sound or data. These documents are often linked to other documents.

[92] ASCII refers to the American Standard Code for Information Interchange, a code for character representation.

[93] *See, e.g.*, Allegheny, Central Hudson, Central Illinois Public Service, Com Ed, Continental Power Exchange, How Group, Florida Power Corp, Montana Power, NERC, NYPP, Ohio Edison, OK Com, PJM, PSNM, Seattle, Texas Utilities, and VEPCO comments.

[94] *See* APPA, CCEM, ConEd, CSW, and MAPP comments.

[95] How Group comments at 19.

[96] For example, a private network could connect to one or more OASIS nodes and offer users off-the-Internet connections at faster speeds. Third parties could gather OASIS information and repackage it into customized displays favored by individual users.

require utilities to provide direct connections to the OASIS without the need to obtain access through the Internet. We also proposed that the cost of these connections be paid for by the customers making the requests and that the networks be required to use the same Internet tools as the Internet connections.

Most commenters preferred that the Commission not require third-party connections to the OASIS in Phase I.[97] Com Ed asserted that direct connections would provide only marginal benefits to the development of an OASIS, and that adding such non-essential goals to OASIS requirements would jeopardize utilities' ability to implement an OASIS on time. Montana Power argued that direct connections would provide affluent large marketers with information ahead of smaller users, and thus would give them market power.

On the other hand, other commenters argued that such connections are important. ConEd argued that direct connections would help minimize the number of different connections customers must have. Continental Power Exchange sees direct connections as allowing third parties to provide services that will add valuable contributions to the successful operation of an OASIS. The How Group reported that discussions among the parties in the group indicated that direct connections would not be a problem as long as the Responsible Party is compensated for the additional service and given a reasonable time to make the connection.

All commenters addressing the subject of who should pay for direct connections agreed that the cost should be paid by the requesting party.[98]

CCEM and OK Com agreed that the direct connections should be required to use the Internet tools required for the Internet connection.

Finally, APPA asserted that, if private networks are created to provide direct connections that are operated by partners or affiliates of utilities, these networks could provide significant performance advantages for the Transmission Provider's merchant affiliates. APPA would require full public disclosure of such partnership or affiliate relationships by the service provider.

We find that the How Group's position is reasonable. Direct connections are feasible if the provider is compensated for the additional service and is given a reasonable time to make the connection. We will, therefore, require direct connections in Phase I, upon request.

Moreover, such connections must be made available on an equal basis to all requesting customers. We note, however, that to the extent that the Transmission Provider is not the Responsible Party, a direct connection is available only from the Responsible Party. This being the case, APPA's concern that the Transmission Provider's merchant services may gain an advantage from an affiliate with a direct connection or private network does not appear to be warranted, as anyone can obtain a direct connection or the services of a private network.

4. Value-Added OASIS Services Provided by Transmission Providers or Responsible Parties

The Commission proposed in the RIN NOPR to permit Transmission Providers or Responsible Parties to provide value-added OASIS services, such as higher speed connections and automatic notification of changed data.

NTEC argued that, unless these services are offered on a non-discriminatory basis, public utilities could gain a competitive advantage by offering these services solely to affiliates. NTEC also requested the Commission to monitor the ''basic'' and ''premium'' service packages to ensure that customers need not pay a ''premium'' price to obtain basic services.

TAPS argued against any offering of value-added services. They argued that smaller customers may not be able to afford such services and that price could be used to discriminate against them. TAPS proposed that instead of permitting value-added services, the Commission should include all OASIS costs in transmission rates.

We agree with NTEC that value-added OASIS services should be offered on a non-discriminatory basis. If a value-added service is offered to anyone, it should be offered to everyone on the same terms and conditions. Regarding NTEC's concern over basic and premium services, we believe that the standards setting process will ensure that the basic package of OASIS services will provide all pertinent information and the means to retrieve it that are necessary for the functioning of the Open Access program.

The Commission will allow these services on a non-discriminatory basis. Such services will remain cost-based until the Commission is satisfied that market-based (value added) rates should be allowed for such services. Requests for market-based rates for such services will be addressed on a case-by-case basis.

5. Transmission Services Information Timing Requirements (Question 37)

In the NOPR, the Commission requested comments on several timing requirements for posting transmission service information. These are:

(1) Transmission Service Information Availability: The most recent Provider transmission service information, including updates reflecting power system changes, shall be available to all Customers within 5 minutes of its scheduled posting time at least 98 percent of the time. The remaining 2 percent of the time the transmission service information shall be available within 10 minutes of its scheduled posting time;

(2) Notification of Posted or Changed Transmission Service Information: Notification of transmission service information posted or changed by a Provider shall be made available within 60 seconds to all subscribed Customers who are currently connected; and

(3) Acknowledgment by the Transmission Service Information Provider: Acknowledgment by the transmission service information provider of the receipt of Customer purchase request/response requests shall occur within 1 minute for Phase I. The actual negotiations and agreements on purchase request/response requests do not have time constraints. For Phase II, acknowledgment shall occur within 30 seconds.

Most commenters supported the Commission's proposals as proposed[99] or with some modification.[100] CCEM asserted that the proposed requirements for updating transmission service information contained in Item (1) would lead to stale information, and would result in customers using the telephone and not the OASIS. CCEM asserted that the Phase I tolerances should be reduced to 30 seconds and one minute respectively.

Continental Power Exchange asserted that items (1) and (2) are good starting points. The Western Group suggested that Item (1) would be adequate if it can be accomplished automatically. Otherwise, it would recommend reducing the 98 percent compliance requirement to 85 percent.

Some commenters agreed with the need for such standards, but opposed

[97] *See, e.g.,* Allegheny, Com Ed, Montana, NERC, Ohio Edison, OK Com, PJM, PSNM, and VEPCO comments.

[98] *See* APPA, CCEM, ConEd, Continental Power Exchange, How Group, and PJM comments.

[99] *See, e.g.,* APPA, Duke, How Group, Florida Power Corp, NYPP, and OK Com comments.

[100] *See* CCEM, Com Ed, Continental Power Exchange, PSNM, and Western Group comments.

incorporating timing performance standards in Phase I standards. VEPCO asserted that these standards are too ambitious for Phase I. Tallahassee argued that these timing requirements may be too restrictive for small utilities whose staff and technology capabilities will be strained by this rule. Central Hudson proposed that response times be determined after OASIS is implemented and users are comfortable with what they would expect as adequate performance.

Most commenters agreed on the need for standards for how quickly providers should post transmission service information. Commenters argued that the requirements should be stricter, that they are too strict, or that they are just right.

The Commission stated that information posting performance requirements are needed to ensure that information is disseminated in a timely manner by Transmission Providers. The comments do not persuade us to change the proposed requirements. We note that the April 15, 1996 How Report drops these requirements. We request the How Group to reinstate these requirements in the report we are inviting them to file on or before May 28, 1996, or to explain why these requirements should be dropped.

Commenters raise several additional points that need to be addressed. First, Com Ed and others argued that these requirements should not be in force during emergencies. The Commission agrees.

Second, several commenters pointed out that the phrase ''available to all Customers'' contained in Item (1) is ambiguous and request that it should be replaced by ''available on the [OASIS].'' We agree.

Third, some commenters suggested that transmission service requests and schedules be approved automatically, on a first come, first served basis. The industry does not generally do business in this manner today, and the Commission will not require it in Phase I. We request the industry to address this issue when developing requirements for Phase II.

6. Common Codes

a. Company Codes

The Commission's experience with implementing standards for file transfers and electronic bulletin boards in the natural gas industry shows that the use of a common system of identifying companies enhances the efficiency of data transfers. The Commission is satisfied with the results of using DUNS numbers [101] as the standard to uniquely identify pipelines and shippers in the natural gas transactions.[102] The Commission proposed to require the use of DUNS numbers to identify transmission-owning utilities and customers on OASIS nodes.

Most commenters believed that DUNS numbers alone or DUNS numbers in combination with names should be used.[103] The How Group asserted that using DUNS numbers will enhance the management of data from a computer perspective and allow flexibility of business applications of OASIS in the future. The How Group also asserted that having commonly used names is more user friendly and proposed that the list of names and DUNs numbers be maintained on a centralized registry.

Others believed that names alone would be sufficient.[104] NERC and Ohio Edison believed that such standardization should be left to the industry.

APPA asserted that DUNS numbers are primarily for private companies and do not include many public power systems. Instead of using DUNS numbers, APPA recommended using a numbering system derived from Energy Information Administration forms: EIA–861 (''Annual Electric Utility Report'') and EIA–867 (''Annual Nonutility Power Producer Report'') as these forms appear to be the most all-encompassing existing numbering system that could be used for OASIS identification. Dun and Bradstreet have informed staff that they will assign DUNS numbers, free of charge, to any entity requesting a number.

The Commission will require the DUNS numbers as the unique numerical identification of OASIS participants. The industry can proceed to develop a naming convention as suggested in the comments.

b. Common Location Codes

The Commission's experience in the natural gas industry demonstrates that a common method of uniquely identifying location points will be needed to facilitate movement of power across the grid. The Commission proposed to use a system to identify locations and paths on the electric transmission grid.

Nearly all commenters who discussed the issue argued that the Commission should not require common location codes.[105] Several commenters argued that providing longitude and latitude information for power plants and substations raises serious national security issues.[106]

Many commenters see the need for a common naming convention for paths and other facilities, such as that currently under development by the How Working Group.[107]

The Commission is persuaded to drop the requirement for a system for location codes and requests the industry to continue development of a common naming convention to be implemented as soon as practicable.

7. Data Definitions and File Formats Not Covered by the Revised How Report

a. Offers to Provide Ancillary Services Provided by an Entity Other Than the Transmission Provider (Question 11)

In the RIN NOPR, the Commission requested the specifications needed to post this information in HTML displays and the formats needed to standardize uploadable and downloadable files containing this information. This final rule requires that information about ancillary services provided by an entity other than the Transmission Provider be posted on the OASIS by Responsible Parties and be displayed on the same page and in the same file format as that of the Transmission Provider.

Although we did receive comments on this issue from various parties, this was not an issue resolved by the revised How Report. We would prefer that the How Group attempt to reach consensus on this issue before we impose our own solution. Therefore, we will include this issue among those that we are requesting further input on before we address this issue in the *Standards and Protocols*.

b. Offering of Primary and Secondary Capacity

The Commission requested comments on how to redesign the download templates in Appendix C of the NOPR so that primary and secondary capacity can be offered through downloadable files that have the same format. The Commission also requested comments on how primary and secondary capacity

[101] DUNS numbers refer to the Data Universal Numbering System, maintained by Dun and Bradstreet.

[102] *See* Standards for Electronic Bulletin Boards Required Under Part 284 of the Commission's Regulations, Docket No. RM93–4–001, Order 563–A, FERC Stats. & Regs., Regulations Preambles, ¶ 30,994 at 31,034 (1994).

[103] *See, e.g.*, Allegheny, CCEM, Com Ed, Continental Power Exchange, How Group, OK Com, and PJM comments.

[104] *See* Seattle, VEPCO, and Western Group comments.

[105] *See* Allegheny, APPA, CCEM, Continental Power Exchange, Duke, How Group, ERCOT, Florida Power Corp, NERC, PJM, VEPCO, and Western Group comments.

[106] *See* How Group, FPC, and NERC comments.

[107] *See* How Group, PSNM, and Western Group comments.

can be displayed in the same tables on an OASIS node. Posting secondary capacity requires more information than for primary capacity and, thus, using the same formats would require many more fields. We need information on the design of those fields before we can set standards for the display of this information.

Although we did receive comments on this issue from various parties, this was not an issue resolved by the revised How Report. We would prefer that the How Group attempt to reach consensus on this issue before we impose our own solution. Therefore, we will include this issue among those that we are requesting further comment on before we address this issue in the *Standards and Protocols.*

8. Formats for Downloadable Files Not Covered in the How Report

a. Standard Format for Data Used in Calculating ATC (Question 16)

The Commission requested comments on how the data used in calculating ATC should be formatted and asked whether the information should be in free form text, predefined tables, or comma delimited ASCII files. We also asked whether, if the information is in free form text, it should be in plain ASCII text or in a word processor format, such as WordPerfect or Word. We deal with both of these issues in section H(2)(f) of this final rule and in the regulations at § 37.6(b)(2)(ii).

b. Standard Formats for Transmission Studies (Question 23)

The Commission requested comments on how transmission studies should be formatted for download from the OASIS. We deal with this issue in section H(2)(g) of this final rule and in the regulations at § 37.6(b)(2)(iii).

c. Standard Format for Electronic Submission to the Commission of Transmission Tariffs (Question 6)

In the RIN NOPR, the Commission proposed requiring that Transmission Providers provide downloadable files of their complete tariffs on the OASIS.[108] The Commission requested that commenters propose a standard format for electronic submission of transmission tariffs to the Commission.

New formats continually are being developed by the computer industry and it would be worthwhile to address this issue again when the Commission addresses Phase II or remaining OASIS issues.

We will require utilities to provide tariff downloads from their OASIS in the same format that they use to file with the Commission.

9. Communication Protocol Issues

a. Internet Browsers

There are a large number of Internet browsers available commercially and in the public domain. The How Report proposed that browsers support ''at least'' HTML version 3 and ''optionally'' support Secure Sockets Layer. The HTML standards used by browsers change from time to time, and, in addition, various browsers can support different extensions to the standards. The Commission does not want to stifle innovation, but at the same time it does want uniformity on the OASIS. The Commission does not want customers to be forced to use different browsers for different OASIS nodes. The Commission wants to ensure that a customer will be able to choose a browser and use it to access all OASIS nodes.

To this end, the Commission requested comments on how to ensure that a customer will be able to choose a browser and use it to access all OASIS nodes.

Most commenters agreed that requiring browsers to support HTML 3 would be sufficient to meet the needs of OASIS nodes and customers at this time.[109]

CSW reported that while the specifications for HTML 3 are still in draft mode, it is the first version of HTML to support the table feature for browsing that the How Working Group wants to use. NYPP would add encryption capabilities to the list of standards. Ohio Edison would require JAVA-enabled browsers.[110]

OK Com recommended that the Commission adopt a primary browser and two alternative browsers for use on OASIS nodes. PJM asserted that, by requiring OASIS nodes to accommodate browsers in common use, OASIS nodes would be able to become more sophisticated as the Internet itself becomes more sophisticated.

Com Ed, ConEd and PSNM would leave the standard to the How Group or an industry-wide OASIS Management Organization.

Most commenters agreed with the How Report that, requiring OASIS nodes to support HTML 3 will allow browsers supporting this standard to view documents on the OASIS. The Commission will adopt the recommendation for HTML 3 contained in the How Report.

b. Bandwidth of Node Connections to the Internet

At issue is the speed at which OASIS users will receive information from OASIS nodes. A major determinant of the speed are the bandwidth connections between the OASIS node and the Internet. The How Report proposed a formula to compute the required minimum bandwidth based on the number of registered users of the node and the number of bits per second to be received by users during HTML displays and downloads of files.[111] These information transfers would include both the receipt of HTML displays and downloads of files. The How Report proposed to use a rate of 8,000 bits per second to determine bandwidth. In the RIN NOPR, the Commission noted that an 8,000 bit per second transfer rate is a much slower rate than the 28,800 bit per second transfer rate for telephone connections that many private individuals and customers use to connect to the Internet. The Commission expressed concern that using 8,000 bit per second as the basis for the bandwidth calculation will lead to connections that are too slow and proposed to use 28,800 bits per second.

Many commenters agreed with the Commission.[112] Com Ed reported that a T1 communications line (1.54 million bits per second) could support 500 simultaneous customers using the Commission's proposal of using 28,800 bits per second in the bandwidth formula. Com Ed concluded that it is unlikely that an OASIS node will experience 500 simultaneous users and that a T1 line is a reasonable upper limit, at this time. The How Group reported that its members are currently paying between $1,500 and $3,000 per month for T1 connections and concludes that it may be cost effective to oversize the bandwidth even though a high bandwidth does not automatically translate into higher access speeds or download rates.

Several commenters preferred the 8,000 bits per second originally proposed by the How Group.[113] Ohio Edison suggested that using a speed of 28,800 will dramatically increase costs and may make joint OASIS nodes less attractive. The How Group asserted that experience has shown that 8,000 bits per second is a reasonable average rate

[108] *See* RIN NOPR text at section III.C (60 FR at 66186) and the proposed regulation at 18 CFR 37.9(c)(1) (60 FR 66200).

[109] *See, e.g.,* Allegheny, APPA, CCEM, and How Group comments.

[110] JAVA is a language that enables a browser to run programs embedded in a WWW page.

[111] How Report at § 3.4.3.

[112] *See, e.g.,* Allegheny, APPA, CSW, OK Com, PJM, and Seattle comments.

[113] *See* ConEd, How Group, and Ohio Edison comments.

for users of the Internet. VEPCO stated that, while many customers will initially use modems rated at 28,800 bits per second, their average data transfer rate will be lower due to a number of factors. Nevertheless, VEPCO asserted that an average of 8,000 bits per second is on the low end of acceptability, especially if large files are to be downloaded or if graphics files are to be viewed. Continental Power Exchange proposed that the 19,200 bits per second be used in the formula. It asserted that this is the fastest modem speed achievable with Microsoft's Windows 3.1.

APPA speculated that there may some areas in remote locations that cannot secure a connection to the Internet with adequate bandwidth to support the 28,800 bit per second standard.

After considering the comments, the Commission continues to believe that 8,000 bits per second is too slow, especially when large files must be transferred and when information is needed promptly for business decisions. The Commission, therefore, will require that a rate of 28,800 bits per second be used in the minimum bandwidth calculation.

c. Data Compression Standards

In the RIN NOPR, the Commission expressed agreement with the How Report that data compression will speed up the transmission of files.[114] We also expressed the belief that communication of OASIS information would be enhanced if every OASIS node used the same compression techniques. The Commission requested comments on what data compression technique or techniques should be made standard for all OASIS nodes.

Most commenters recommended that the ''ZIP'' file compression standard be adopted as the common OASIS standard.[115] The How Group pointed out that the ZIP format is available for most computer platforms. Some commenters, however, suggested that setting a common compression technique is too detailed for a Commission rulemaking.[116]

Most commenters supported using the ''ZIP'' file compression standard on OASIS. This format is widely used for data communication and the necessary software is available for most computer platforms. The Commission will, therefore, require that the ZIP standard be the data compression standard on OASIS nodes. The Commission agrees that requiring compression for files created for each HTTP request may be too complex for Phase I. However, utilities may want to compress large files that would be infrequently updated, such as tariffs. These files will benefit from file compression and will not be subject to the complexities of compressing the dynamically created HTTP files. The Commission will require that static files residing on OASIS nodes be compressed.

d. Other Communication Protocol Issues Raised by Commenters

i. The Requirement to Use FTP for File Transfers

The October 16, 1995 How Report recommended requiring OASIS nodes to use the Internet File Transfer Protocol (FTP) for file uploads and downloads. In its comments, the How Group recommended changing the file transfer method originally proposed in the How Report from the FTP to the HTTP for data access, including files upload and download to and from OASIS nodes. We will accept this recommendation.

ii. Field Size for Path Names

The How Report proposed that path names be a 12-character alphanumeric string. The March 7, 1996 filing by its How Group recommends that the 12 characters be changed to 50 alphanumeric characters. Subsequent to the How Report, the How Group found that 12 characters were insufficient to accommodate path names and the associated regional identifiers.

We will await final recommendations concerning file formats before ruling on this issue.

iii. Files Containing More Than 100,000 Bytes

The How Report recommended that customers not be required to download any single file that is larger than 100,000 bytes in order to access transmission information in electronic form. The implication is that all files larger than 100,000 bytes must be broken into sub-files.

Detroit Edison argued that there is no easy way to download only a section of a file and that customers may prefer to download one large file rather than 20 small ones.

We agree and will not require files to be broken into 100,000 byte segments at this time. In the event that a restriction on file size becomes needed, it can be addressed in Phase II.

*K. Cost Recovery Issues*

1. Costs of Developing and Running an OASIS (Question 34)

Transmission-owning public utilities are entitled to recover the costs of developing and running an OASIS. Generally, these costs will be fixed costs not attributable to individual users. In the NOPR, the Commission proposed to include these costs in wholesale transmission rates. The Commission also proposed to allow costs that can be identified as varying with usage to be charged as usage fees to individual customers.

The commenters were nearly evenly split between those favoring and opposing the Commission's proposals. NIEP argued that rolling-in OASIS costs would distribute costs among all transmission users equally and would be the only fair method of allocating the cost of an OASIS. NIEP concludes that, if costs were directly assigned to individual transmission users, these users would be penalized by forcing them to pay the cost of providing information which is available to, and used by, all transmission users.

Many commenters objected to including OASIS costs in wholesale transmission rates. They argued that it is inappropriate to require network service customers (who may not participate in wholesale sales transactions) to absorb the cost of the OASIS. Indianapolis P&L claimed that it has no significant, unique transmission paths and uses its transmission assets to serve its native load customers. Consequently, most of its OASIS costs would be borne by its native load customers.

Many commenters suggested alternatives to rolling in OASIS costs. ConEd argued that, if all OASIS costs were included in wholesale transmission rates, OASIS costs might not be fully recovered since transmission use varies. To remedy this, ConEd proposed rolling in part of the costs with the remainder to be recovered through a monthly access fee. MAPP suggested usage fees based on cost causation, such as time access charges, fixed fees for transmission requests and fees based on energy scheduled over transmission secured on the OASIS. NSP suggested a fee structure like other on-line information services, such as America On Line, CompuServe, and Prodigy.

Several commenters saw other problems associated with utility recovery of OASIS costs. Some called attention to potential problems in recovering the costs of a joint OASIS. MAPP pointed out that a jointly

[114] How Report § 3.3.8(c).

[115] *See* APPA, CCEM, ConEd, and PSNM comments.

[116] *See* NERC and Ohio Edison comments.

operated OASIS will not have composite transmission tariffs from which to recover costs and that a method was needed for utilities to recover joint expenses.

Detroit Edison speculated that a large number of the general public could be connected to an OASIS at one time and thus limit OASIS access to transmission users. To prevent this problem, Detroit Edison proposed that fees be established to prevent misuse or overuse of an OASIS.

It is appropriate that all wholesale transmission customers and all unbundled retail transmission customers should pay a share of OASIS development costs in their rates. Therefore, the Commission concludes that the cost of developing an OASIS should be included in unbundled transmission rates with variable costs of operating an OASIS to be recovered, to the extent possible, in usage fees. Individual rate proceedings will determine which OASIS costs can be identified as varying with usage and how to set the fees.

2. Costs of Posting Resales of Capacity on the OASIS (Question 40)

The Commission proposed that resales of capacity be posted on the same page, and using the same display and downloadable tables, as capacity being sold by the Transmission Provider. This posting incurs an expense on the part of the Responsible Party. The Commission proposed that each reseller must, therefore, pay the costs of posting its own offering.

Most commenters believed that those posting secondary services should pay the cost of posting. APPA proposed that the incremental cost of posting should be recovered as a special fee in the primary contract of transmission service. Ohio Edison proposed a fee for each posting with a ''true up'' mechanism to ensure that over time actual costs are recovered. Com Ed and WP&L suggested a fee that is a percentage of revenue received from the secondary postings.

NEPOOL suggested that this expense is unlikely to be significant and, therefore, could be included in rates. NRECA and NCEMC warned that posting fees not be set so high as to discourage resale of capacity. OK Com argued that it would be inappropriate to charge resellers of transmission capacity for posting if the Transmission Provider is not also required to pay a fee for posting.

After considering the comments, we have decided that there should be no added fee for posting capacity resales. All OASIS users, including the Transmission Provider, who post capacity pay all the fixed costs of OASIS in wholesale rates and pay usage-related variable costs in access fees. Thus, the costs of posting resale capacity are already recovered. To require resellers to pay additional fees for posting their products would provide OASIS operators with a cost advantage.

3. Costs of Posting Ancillary Services on the OASIS

The Commission proposed that entities posting offers to provide ancillary services on the OASIS should pay the costs associated with posting this information and requested comments on how to determine these costs.

Commenters proposed various fee schemes to recover these costs. Some were based on the cost of developing and maintaining posting services, others were based solely on the incremental cost of posting a notice. Some proposed to roll the costs into wholesale transmission rates. Others proposed that utilities be allowed make a profit from this service.

Arizona proposed an incentive scheme to keep costs down, while Continental Power Exchange suggested that the method of calculating these costs be left to the industry. PJM proposed a fee based on the amount of person-hours and computer usage required by such posting. ConEd argued that utilities should be allowed to earn a profit on this service.

CSW submitted that posting costs cannot be broken out individually and proposed that the costs for an OASIS should be borne by all market participants on a fair basis. Florida Power Corp argued that an OASIS is not a newspaper, and that Transmission Providers are not in the publishing business; therefore, OASIS services, including the posting of ancillary services, should not be sold like classified ads. It proposed that the cost of operating an OASIS should be rolled into wholesale transmission rates. VEPCO also suggested that the cost of posting ancillary services should be included in the cost of the OASIS, with costs of specific evaluations of ancillary service offers to be determined and posted on the OASIS.

After assessing the comments, we find that the cost of developing the facilities needed to post ancillary services required to be provided by the Open Access Final Rule should be recovered through unbundled transmission rates. Any variable costs of posting these services will be included in the general OASIS usage fees. As for those ancillary services not required to be provided,[117] OASIS operators may charge a cost based fee to those offering these services for the cost of posting.

*L. Section 37.8—Implementation in Phases*

1. Phase I Implementation

Implementation of this rule and the initial standards and protocols will ensure that sufficient information is available to transmission customers to achieve comparable access to transmission information. They do not, however, provide all the desired performance requirements.

Because of the complexity of developing an OASIS, and the need to begin the transmission open access program promptly, the Commission proposed a phased approach to OASIS implementation. We proposed to require implementation of a Phase I OASIS as of the effective date of the final rule on non-discriminatory open access transmission and stranded costs (*i.e.*, 60 days from publication of this order in the Federal Register).

Comments

Many commenters argued that the proposed 60-day implementation period is unrealistic in light of the amount of work that must be done. ERCOT suggested that only portions of the Phase I implementation could be accomplished within the 60-day period. A vast majority of commenters suggested that an implementation period of six months would be required.

Arizona and ConEd pointed out that, while plans for implementation can begin in advance of the final rule, final specifications and designs depend on the resolution of several major Open Access Final Rule issues. ConEd also argued that all new systems require a ''Beta'' test stage in which the system can be tested before it is used in a production environment, and that a 60-day implementation period will not permit such testing. Similarly, NERC argued that more time is needed to make sure workable administrative procedures are in place for consistency in calculating, posting, and coordinating ATC. NEPOOL echoed these comments, reporting that an implementation period of less than six months would result in the development of OASIS nodes across the nation that lack uniformity as each region complies within a short deadline without time to coordinate with other areas.

Duke argued that a full six months will be needed because, in addition to

[117] *See* Open Access Final Rule generally at section IV.D.

the difficult task of implementing OASIS, the Open Access Final Rule will change the way the industry does business. Duke argued that the coordination of resources necessary to accommodate all of the discussions and decisions in developing joint OASIS nodes is a more lengthy process than development of an OASIS by each individual company. Duke asserted that a six-month implementation period is needed to permit joint OASIS projects to develop. [118]

SoCal Edison requested that the Commission delay implementation until the requirements of the CA Com's California Restructuring Order have been fully identified. Public Generating Pool argued that the Northwest governors have organized a review of the Northwest Power Act, the Bonneville Power Act, and the northwest electric system in general, to be completed by November 1996. Public Generating Pool argued that the Commission should consider possible contributions to be made by this forthcoming report and urged that the Commission not ignore this work based on a need to meet self-imposed unreasonable and unrealistic OASIS implementation dates.

The How Group, the Western Group and VEPCO suggested that, if the Commission cannot extend the implementation period to six months, then Phase I should itself be implemented in stages. The How Group suggested a three-stage process that would begin with a requirement for primary providers, within 120 days after issuance of the final rule, to post estimates of ATC and secondary capacity for resale that might not be accurate. This would be followed, within 180 days after issuance of the final rule, by the posting of fully accurate secondary capacity information and ATC information, and with Transmission Providers certifying, within 210 days of the final rule, that all functionality and performance requirements for OASIS have been met.

ConEd and Carolina P&L noted that OASIS implementation will cause changes to utility operations, and requested that the Commission schedule implementation during off-peak seasons, such as the spring or fall, when they claim transmission systems are under less stress.

Public Generating Pool and Tallahassee speculated that, if publicly-owned utilities are considered to be under the Commission's jurisdiction for OASIS purposes, they will need more than a six-month implementation period because they may be required to obtain funding approval from state or local oversight commissions.

Discussion

Commenters make persuasive arguments for permitting a six-month implementation period. They raise concerns that a shorter period will not permit adequate time to design, build and thoroughly test an OASIS. They also raise concerns that a shorter period will inhibit the development of joint OASIS and OASIS with a common look and feel. The Commission shares these concerns. We also want to take into account commenters' requests that implementation not be required during the peak winter or summer months. For this reason, we are requiring compliance by November 1, 1996, a specific date about six months from when we expect this final rule to become effective, chosen to avoid the winter and summer peak months. This date is provided in § 37.8 of the final rule, which modifies the provision originally set out in § 37.15 of the RIN NOPR.

In addition, we will provide additional procedures to allow the development of the remaining initial standards and protocols. As described above, we invite the How Group to report to us on or before May 28, 1996 on these issues (and to attach any comments it has received from any interested person with opposing views).

For these reasons, the Commission will require implementation of Phase I of OASIS to be operational by November 1, 1996.

2. Phase II Implementation

Once Phase I becomes operational, and the industry and public gain experience with it, the full information and functional requirements needed to support open access transmission service will become clearer. In the RIN NOPR, the Commission stated that it envisioned that Phase II would build on Phase I and requested that the industry continue the process of developing standards, and provide a consensus report to the Commission on Phase II recommendations by January 1, 1997.

Most commenters argued that the proposed January 1997 date is too ambitious. Southern argued that this date does not provide enough time for the industry to gain experience with Phase I. Tallahassee and others suggested that Phase II should not be implemented until at least one year after Phase I is implemented. Continental Power Exchange asserted that Phase II will be a continuum of development from the first day of Phase I implementation. NRECA suggested that, if Phase I turns out to be inadequate, then Phase II should be accelerated.

We are sensitive to commenters' concerns about the time between the implementation of Phase I and Phase II. At the same time, the need for the additional functions and performance requirements proposed for Phase II will, we believe, need to be implemented quickly. Accordingly, the industry should continue the process of developing standards, and attempt to develop a consensus report on Phase II recommendations by no later than seven months after implementation of Phase I June 4, 1997. We anticipate that this report would be the basis for supplemental OASIS proceedings to Phase II OASIS requirements. The additional time should permit the industry to obtain sufficient experience with Phase I before it recommends specifications for Phase II.

We believe that it may be appropriate to require the scheduling of energy transfers on the OASIS in Phase II. Electronic scheduling of energy transfers over the OASIS would increase efficiency. We, therefore, request that the industry incorporate standards for the scheduling of energy transfers on OASIS into the Phase II report.

IV. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) [119] requires the Commission to describe the impact that any proposed or final rule would have on small entities or to certify that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. The entities that would have to comply with the final rule are public utilities and transmitting utilities that do not fall within the RFA's definition of small entities.[120] Therefore, under section 605(b) of the RFA, the Commission hereby certifies that this final rule will not have a significant economic impact on small entities within the meaning of the RFA. Accordingly, no regulatory

[118] NERC made this same point in its comments.

[119] 5 U.S.C. §§ 601–612.

[120] *See* 5 U.S.C. §§ 601(3) and 601(6) and 15 U.S.C. § 632(a). The RFA defines a small entity as one that is independently owned and not dominant in its field of operation. *See* 15 U.S.C. § 632(a). In addition, the Small Business Administration defines a small electric utility as one that disposes of 4 million MWh or less of electric energy in a given year. *See* 13 CFR 121.601 (Major Group 49–Electric, Gas and Sanitary Services) (1995).

In the Open Access Final Rule, issued contemporaneously with this final rule, we conclude that, under these definitions, the Open Access Final Rule would not have a significant economic impact on a significant number of small entities. As this final rule only implements the OASIS requirements of the Open Access Final Rule, the same conclusion is warranted here, for the same reasons.

flexibility analysis is required pursuant to section 603 of the RFA.

In its comments, NRECA questioned the Commission's conclusion that the RIN NOPR did not need to be accompanied by an RFA analysis. NRECA's argument was based on its concern that the Commission might extend OASIS requirements to non-public, not-for-profit cooperative utilities. NRECA argued that, if this were to happen, the Commission would then have to analyze the effect of the OASIS requirements on these utilities and show that the requirements would not have a substantial economic impact upon them. However, as proposed in the RIN NOPR, the Commission's OASIS regulations will apply only to public utilities that own, operate, or control transmission facilities subject to the Commission's jurisdiction. As noted immediately above, public utilities do not fall within the RFA's definition of a ''small entity.'' In addition, as discussed earlier, and as discussed in the Open Access Final Rule, there will be a provision for a waiver for small entities. This responds to NRECA's concerns.

V. Environmental Statement

Commission regulations require that an environmental assessment or an environmental impact statement be prepared for a Commission action that may have a significant effect on the human environment.[121] Although this final rule does not directly affect any physical transmission facilities, but merely requires the electronic posting by computers of certain information about transmission availability and prices, it nevertheless is covered by the Final Environmental Impact Statement issued in the Open Access NOPR proceeding in Docket Nos. RM95–8–000 and RM94–7–001 on April 12, 1996. Thus, no separate environmental assessment or environmental impact statement has been prepared in this proceeding.

VI. Information Collection Statement

There are now approximately 328 public utilities, including marketers and wholesale generation entities. The Commission estimates that approximately 166 of these utilities own, operate, or control facilities used for the transmission of electric energy in interstate commerce and thus are subject to this rule. However, since the operation of an OASIS will be closely associated with control areas, we assume that an OASIS will be developed at the control area level and not by each public utility that owns, operates, or controls interstate transmission facilities. We also expect that some additional OASIS nodes will be created voluntarily by non-public utilities subject to these regulations under the reciprocity condition of the *pro forma* tariffs. We estimate, therefore, that 140 respondents will be required to collect information. We believe that this estimate is conservative (on the high side) because some regions are likely to develop a region-wide OASIS that will cover more than one control area.[122]

This estimate is higher than the one we included in the RIN NOPR, where we estimated that there would be 84 respondents. We have adjusted our estimate in response to the arguments advanced by NRECA and NE Public Power District, in separate letters to OMB, that the Commission's Information Collection Statement contained in the RIN NOPR failed to account for the proposal in the Open Access NOPR that, because of the reciprocity requirement, non-public utilities and cooperatives entering contracts for open access transmission services would be required to establish their own OASIS nodes or participate in a regional OASIS node.

NRECA also argued that the Commission's analysis must include not only those entities that are developing their own OASIS node, but also those entities who, while they are not developing and operating their own OASIS node, nevertheless will contribute data to their control area operators or regional OASIS operators. NRECA argued, therefore, that the Commission's estimate of the number of respondents should have taken this into account. It did.

Although not explicitly stated in the RIN NOPR, the Commission's Information Collection Statement, both in this final rule and in the RIN NOPR, has been based not only on the efforts by the respondents who will directly operate OASIS nodes but also reflects the collection of information from all significant participants in the transmission market.

*Information Collection Statement*

*Title:* FERC–717, Real-Time Information Network Standards.

*Action:* Final Rule

*OMB Control No:* 1902–0173.

*Respondents:* Public Utilities that own and/or control facilities used for the transmission of electric energy in interstate commerce.

*Frequency of Responses:* On Occasion

*Necessity of the information:* The final rule requires affected public utilities to comply with requirements for an Open Access Same-time Information System (OASIS) established by the Commission to give potential customers access to information, by electronic means, that would ensure the availability of open access wholesale transmission service on a non-discriminatory basis. These requirements would support arrangements made for wholesale sales and purchases for third parties. Public utilities or their agents will be required to give competitors and other users of the transmission system access to the same information available to public utility personnel who initiate the acquisition or disposition of power in the wholesale market and at the same time. The Commission will use the information to monitor the networks to ensure that potential purchasers of transmission services obtain the services on a non-discriminatory basis. This final rule was developed after a review of comments filed in response to issuance of a notice of public rulemaking.

The Office of Management and Budget's (OMB) regulations,[123] require OMB to approve certain information collection requirements imposed by agency rule. The information collection requirements in the final rule will be reported directly to transmission users and will be subject to subsequent audit by the Commission. The distribution of these data will help the Commission carry out its responsibilities under Part II of the FPA.

The Commission is submitting notification of this final rule to OMB. Interested persons may obtain information on the reporting requirements by contacting the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426 [Attention Michael Miller, Information Services Division, (202) 208–1415], and to the Office of Management and Budget [Attention: Desk Officer for the Federal Energy Regulatory Commission (202) 395–3087].

VII. Effective Date

The regulations of new part 37 will become effective on July 9, 1996. The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of OMB, that the Open Access Final Rule and the OASIS final rule together constitute a ''major rule'' as

[121] Regulations Implementing National Environmental Policy Act, Order No. 486, 52 FR 47897 (Dec. 17, 1987); 1986–90 Regulations Preambles, FERC Stats. & Regs. ¶30,783 (Dec. 10, 1987) (*codified* at 18 CFR Part 380).

[122] *See supra* (discussion quoted from How Report at 80).

[123] 5 CFR 1320.11.

defined in section 351 of the Small Business Regulatory Enforcement Act of 1996.[124] The rule will be submitted to both Houses of Congress and the Comptroller General prior to its publication in the Federal Register. All of the requirements prescribed in the standards of conduct must be complied with and Phase I OASIS sites that meet the requirements prescribed in this final rule must be in operation by November 1, 1996.

List of Subjects in 18 CFR Part 37

Electric power plants, Electric utilities.

By the Commission.

Lois D. Cashell,

*Secretary.*

In consideration of the foregoing, the Commission amends chapter I of title 18, *Code of Federal Regulations,* to add a new part 37, as set forth below:

## PART 37—OPEN ACCESS SAME-TIME INFORMATION SYSTEMS AND STANDARDS OF CONDUCT FOR PUBLIC UTILITIES

Sec.
37.1 Applicability.
37.2 Purpose.
37.3 Definitions.
37.4 Standards of conduct.
37.5 Obligations of Transmission Providers and Responsible Parties.
37.6 Information to be posted on an OASIS.
37.7 Auditing Transmission Service Information.
37.8 Implementation schedule for OASIS requirements; phases.

Authority: 16 U.S.C. 791–825r, 2601–2645; 31 U.S.C. 9701; 42 U.S.C. 7101–7352.

### § 37.1 Applicability.

This part applies to any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce and to transactions performed under the *pro forma* tariff required in part 35 of this chapter.

### § 37.2 Purpose.

(a) The purpose of this part is to ensure that potential customers of open access transmission service receive access to information that will enable them to obtain transmission service on a non-discriminatory basis from any Transmission Provider. These rules provide standards of conduct and require the Transmission Provider (or its agent) to create and operate an Open Access Same-time Information System (OASIS) that gives all users of the open access transmission system access to the same information.

(b) The OASIS will provide information by electronic means about available transmission capability for point-to-point service and will provide a process for requesting transmission service. OASIS will enable Transmission Providers and Transmission Customers to communicate promptly requests and responses to buy and sell available transmission capacity offered under the Transmission Provider's tariff.

### § 37.3 Definitions.

(a) *Transmission Provider* means any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce.

(b) *Transmission Customer* means any eligible customer (or its designated agent) that can or does execute a transmission service agreement or can or does receive transmission service.

(c) *Responsible party* means the Transmission Provider or an agent to whom the Transmission Provider has delegated the responsibility of meeting any of the requirements of this part.

(d) *Reseller* means any Transmission Customer who offers to sell transmission capacity it has purchased.

(e) *Wholesale merchant function* means the sale for resale, or purchase for resale, of electric energy in interstate commerce.

(f) *Affiliate* means:

(1) For any exempt wholesale generator, as defined under section 32(a) of the Public Utility Holding Company Act of 1935, as amended, the same as provided in section 214 of the Federal Power Act; and

(2) For any other entity, the term *affiliate* has the same meaning as given in § 161.2(a) of this chapter.

### § 37.4 Standards of conduct.

A Transmission Provider must conduct its business to conform with the following standards:

(a) *General rules.* (1) Except as provided in paragraph (a)(2) of this section, the employees of the Transmission Provider engaged in transmission system operations must function independently of its employees, or the employees of any of its affiliates, who engage in Wholesale Merchant Functions.

(2) Notwithstanding any other provisions in this section, in emergency circumstances affecting system reliability, Transmission Providers may take whatever steps are necessary to keep the system in operation. Transmission Providers must report to the Commission and on the OASIS each emergency that resulted in any deviation from the standards of conduct, within 24 hours of such deviation.

(b) *Rules governing employee conduct.* (1) *Prohibitions.* Any employee of the Transmission Provider, or any employee of an affiliate, engaged in wholesale merchant functions is prohibited from:

(i) Conducting transmission system operations or reliability functions; and

(ii) Having access to the system control center or similar facilities used for transmission operations or reliability functions that differs in any way from the access available to other open access Transmission Customers.

(2) *Transfers.* Employees engaged in either wholesale merchant functions or transmission system operations or reliability functions are not precluded from transferring between such functions as long as such transfer is not used as a means to circumvent the standards of conduct of this section. Notices of any employee transfer to or from transmission system operations or reliability functions must be posted on the OASIS as provided in § 37.6(g)(3). The information to be posted must include: the name of the transferring employee, the respective titles held while performing each function (*i.e.*, on behalf of the Transmission Provider and wholesale merchant or affiliate), and the effective date of the transfer. The information posted under this section must remain on the OASIS for 90 days.

(3) *Information access.* Any employee of the Transmission Provider, or of any of its affiliates, engaged in wholesale merchant functions:

(i) Shall have access to only that information available to the Transmission Provider's open access transmission customers (*i.e.*, the information posted on an OASIS), and must not have preferential access to any information about the Transmission Provider's transmission system that is not available to all users of an OASIS; and

(ii) Is prohibited from obtaining information about the Transmission Provider's transmission system (including information about available transmission capability, price, curtailments, ancillary services, and the like) through access to information not posted on the OASIS that is not otherwise also available to the general public without restriction, or through information through the OASIS that is not also publicly available to all OASIS users.

(4) *Disclosure.* A Transmission Provider is responsible for ensuring compliance with the following provisions:

[124] 5 U.S.C. § 804(2).

(i) Any employee of the Transmission Provider, or any employee of an affiliate, engaged in transmission system operations or reliability functions may not disclose to employees of the Transmission Provider, or any of its affiliates, engaged in wholesale merchant functions any information concerning the transmission system of the Transmission Provider or the transmission system of another (including information received from non-affiliates or information about available transmission capability, price, curtailments, ancillary services, etc.) through non-public communications conducted off the OASIS, through access to information not posted on the OASIS that is not at the same time available to the general public without restriction, or through information on the OASIS that is not at the same time publicly available to all OASIS users (such as E-mail).

(ii) If an employee of the Transmission Provider engaged in transmission system operations or reliability functions discloses information not posted on the OASIS in a manner contrary to the requirements of the standards of conduct, the Transmission Provider must immediately post such information on the OASIS.

(iii) A Transmission Provider may not share any market information, acquired from nonaffiliated Transmission Customers or potential nonaffiliated Transmission Customers, or developed in the course of responding to requests for transmission or ancillary service on the OASIS, with its own employees (or those of an affiliate) engaged in merchant functions, except to the limited extent information is required to be posted on the OASIS in response to a request for transmission service or ancillary services.

(5) *Implementing tariffs.* (i) Employees of the Transmission Provider engaged in transmission system operations or reliability functions must strictly enforce all tariff provisions relating to the sale or purchase of open access transmission service, if these provisions do not provide for the use of discretion.

(ii) Employees of the Transmission Provider engaged in transmission system operations must apply all tariff provisions relating to the sale or purchase of open access transmission service in a fair and impartial manner that treats all customers (including the public utility and any affiliate) in a non-discriminatory manner, if these provisions involve discretion.

(iii) The Transmission Provider must keep a log, available for Commission audit, detailing the circumstances and manner in which it exercised its discretion under any terms of the tariff.

(iv) The Transmission Provider may not, through its tariffs or otherwise, give preference to wholesale purchases or sales made on behalf of its own power customers, or those of an affiliate, over the interests of any other wholesale customer in matters relating to the sale or purchase of transmission service (including issues of price, curtailments, scheduling, priority, ancillary services, etc.).

(v) If the Transmission Provider offers a discount on purchases of transmission service made on behalf of its own power customers or those of any affiliate, then, at the same time, it must post on the OASIS an offer to provide the same discount to all Transmission Customers on the same path and on all unconstrained transmission paths.

(vi) If the Transmission Provider offers a rate discount on ancillary services to an affiliate, or attributes a discounted ancillary service rate to its own transactions, the Transmission Provider must, at the same time, post on the OASIS an offer to provide the same discount to all eligible customers.

(6) *Books and records.* A Transmission Provider must maintain its books of account and records (as prescribed under parts 101 and 125 of this chapter) separately from those of its affiliates and these must be available for Commission inspection.

(c) *Maintenance of written procedures.* The Transmission Provider must maintain in a public place, and file with the Commission, current written procedures implementing the standards of conduct in such detail as will enable customers and the Commission to determine that the Transmission Provider is in compliance with the requirements of this section.

**§ 37.5 Obligations of Transmission Providers and Responsible Parties.**

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

(b) A Responsible Party must:

(1) Provide access to an OASIS providing standardized information relevant to the availability of transmission capacity, prices, and other information (as described in this part) pertaining to the transmission system for which it is responsible; and

(2) Shall operate the OASIS in compliance with the standardized procedures and protocols found in OASIS Standards and Communication Protocols, which can be obtained from the Public Reference and Files Maintenance Branch, Room 2A, Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426.

(c) Transmission Providers must provide ''read only'' access to the OASIS to Commission staff and the staffs of State regulatory authorities, at no cost, after such staff members have complied with the requisite registration procedures.

**§ 37.6 Information to be posted on an OASIS.**

(a) The information posted on the OASIS must be in such detail as to allow Transmission Customers to:

(1) Make requests for transmission services offered by Transmission Providers, Resellers and other providers of ancillary services;

(2) View and download in standard formats, using standard protocols, information regarding the transmission system necessary to enable prudent business decision making;

(3) Post, view, upload and download information regarding available products and desired services;

(4) Clearly identify the degree to which their transmission service requests or schedules were denied or interrupted; and

(5) Obtain access, in electronic format, to information to support available transmission capability calculations and historical transmission service requests and schedules for various audit purposes.

(b) *Posting transmission capability.* The transmission capability that is expected to be available on the Transmission Provider's system (ATC) and the total transmission capability (TTC) of that system shall be calculated and posted for each Posted Path as set out in this section.

(1) *Definitions.* For purposes of this section the terms listed below have the following meanings:

(i) *Posted path* means any control area to control area interconnection; any path for which service is denied, curtailed or interrupted for more than 24 hours in the past 12 months; and any path for which a customer requests to have ATC or TTC posted. For this last category, the posting must continue for 180 days and thereafter until 180 days have elapsed from the most recent request for service over the requested path. For purposes of this definition, an

hour includes any part of an hour during which service was denied, curtailed or interrupted.

(ii) *Constrained posted path* means any posted path having an ATC less than or equal to 25 percent of TTC at any time during the preceding 168 hours or for which ATC has been calculated to be less than or equal to 25 percent of TTC for any period during the current hour or the next 168 hours.

(iii) *Unconstrained posted path* means any posted path not determined to be a constrained posted path.

(2) *Calculation methods, availability of information, and requests.* (i) Information used to calculate any posting of ATC and TTC must be dated and time-stamped and all calculations shall be performed according to consistently applied methodologies referenced in the Transmission Provider's transmission tariff and shall be based on current industry practices, standards and criteria.

(ii) On request, the Responsible Party must make all data used to calculate ATC and TTC for any constrained posted paths publicly available (including the limiting element(s) and the cause of the limit (*e.g.*, thermal, voltage, stability)) in electronic form within one week of the posting. The information is required to be provided only in the electronic format in which it was created, along with any necessary decoding instructions, at a cost limited to the cost of reproducing the material. This information is to be retained for six months after the applicable posting period.

(iii) System planning studies or specific network impact studies performed for customers to determine network impacts are to be made publicly available in electronic form on request and a list of such studies shall be posted on the OASIS. A study is required to be provided only in the electronic format in which it was created, along with any necessary decoding instructions, at a cost limited to the cost of reproducing the material. These studies are to be retained for two years.

(3) *Posting.* The ATC and TTC for all Posted Paths must be posted in megawatts by specific direction and in the manner prescribed in this subsection.

(i) *Constrained posted paths*—(A) *For Firm ATC and TTC.* (*1*) The posting shall show ATC and TTC for a 30-day period. For this period postings shall be: by the hour, for the current hour and the 168 hours next following; and thereafter, by the day. If the Transmission Provider charges separately for on-peak and off-peak periods in its tariff, ATC and TTC will be posted daily for each period.

(*2*) Postings shall also be made by the month, showing for the current month and the 12 months next following.

(*3*) If planning and specific requested transmission studies have been done, seasonal capability shall be posted for the year following the current year and for each year following to the end of the planning horizon but not to exceed 10 years.

(B) *For Non-Firm ATC and TTC.* The posting shall show ATC and TTC for a 30-day period by the hour and days prescribed under paragraph (b)(3)(i)(A)(*1*) of this section and, if so requested, by the month and year as prescribed under paragraph (b)(3)(i)(A) (*2*) and (*3*) of this section.

(C) *Updating Posted Information for Constrained Paths.*

(*1*) The capability posted under paragraphs (b)(3)(i) (A) and (B) of this section must be updated when transactions are reserved or service ends or whenever the TTC estimate for the Path changes by more than 10 percent.

(*2*) All updating of hourly information shall be made on the hour.

(ii) *Unconstrained Posted Paths.* (A) Postings of ATC and TTC shall be by the day, showing for the current day and the next six days following and thereafter, by the month for the 12 months next following. If the Transmission Provider charges separately for on-peak and off-peak periods in its tariff, ATC and TTC will be posted for the current day and the next six days following for each period. These postings are to be updated whenever the ATC changes by more than 20 percent of the Path's TTC.

(B) If planning and specific requested transmission studies have been done, seasonal capability shall be posted for the year following the current year and for each year following until the end of the planning horizon but not to exceed 10 years.

(c) *Posting Transmission Service Products and Prices.* (1) Transmission Providers must post prices and a summary of the terms and conditions associated with all transmission products offered to Transmission Customers.

(2) Transmission Providers must provide a downloadable file of their complete tariffs in the same electronic format as the tariff that is filed with the Commission.

(3) A Transmission Provider, within 24 hours of agreeing to sell transmission service to a non-affiliate at a discount (as measured from when ATC must be adjusted in response to the transaction), must post on the OASIS (and make available for download) information describing the transaction (including price, quantity, and any other relevant terms and conditions) and shall keep such information posted on the OASIS for at least 30 days. A record of the transaction must be retained and kept available as part of the audit log required in § 37.7. With respect to any discount offered to its own power customers or its affiliates, the Transmission Provider must, at the same time, post on the OASIS an offer to provide the same discount to all Transmission Customers on the same path and on all unconstrained transmission paths.

(4) Customers choosing to use the OASIS to offer for resale transmission capacity they have purchased must post relevant information to the same OASIS as used by the one from whom the Reseller purchased the transmission capacity. This information must be posted on the same display page, using the same tables, as similar capability being sold by the Transmission Provider, and the information must be contained in the same downloadable files as the Transmission Provider's own available capability. A customer reselling transmission capacity without the use of an OASIS must, nevertheless, inform the original Transmission Provider of the transaction within the time limits prescribed by the ''Sale or Assignment of Transmission Service'' section of the *pro forma* tariff.

(d) *Posting Ancillary Service Offerings and Prices.* (1) Any ancillary service required to be provided or offered under the *pro forma* tariff prescribed by part 35 of this chapter must be posted with the price of that service.

(2) A Transmission Provider, within 24 hours of agreeing to sell an ancillary service to a non-affiliate at a discount, must post on the OASIS (and make available for download) information describing the transaction (including price, quantity, and any other relevant terms and conditions) and shall keep such information posted on the OASIS for at least 30 days. A record of the transaction must be retained and kept available as part of the audit log required in § 37.7. As to discounts for ancillary services, if a Transmission Provider offers a rate discount to an affiliate, or attributes a discounted ancillary service rate to its own transactions, the Transmission Provider must, at the same time, post on the OASIS an offer to provide the same discount to all eligible customers.

(3) Any other interconnected operations service offered by the Transmission Provider may be posted, with the price for that service.

(4) Any entity offering an ancillary service shall have the right to post the offering of that service on the OASIS if the service is one required to be offered by the Transmission Provider under the *pro forma* tariff prescribed by part 35 of this chapter. Any entity may also post any other interconnected operations service voluntarily offered by the Transmission Provider. Postings by customers and third parties must be on the same page, and in the same format, as postings of the Transmission Provider.

(e) *Posting Specific Transmission Service Requests and Responses.*

(1) *General rules.* (i) All requests for transmission service offered by Transmission Providers under the *pro forma* tariff must be made on the OASIS. Requests for transmission service, and the responses to such requests, must be conducted in accordance with the Transmission Provider's tariff, the Federal Power Act, and Commission regulations.

(ii) In processing a request for transmission or ancillary service, the Responsible Party shall post the following information: the date and time when the request is made, its place in any queue, the status of that request, and the result (accepted, denied, withdrawn).

(iii) The identity 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.

(2) *Posting when a request for transmission service is denied.* (i) When a request for service is denied, the Responsible Party must provide the reason for that denial as part of any response to the request.

(ii) Information to support the reason for the denial, including the operating status of relevant facilities, must be maintained for 60 days and provided, upon request, to the potential Transmission Customer.

(iii) Any offer to adjust operation of the Transmission Provider's System to accommodate the denied request must be posted and made available to all Transmission Customers at the same time.

(3) *Posting when a transaction is curtailed or interrupted.*

(i) When any transaction is curtailed or interrupted, the 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.

(ii) Information to support any such curtailment or interruption, including the operating status of the facilities involved in the constraint or interruption, must be maintained for 60 days and provided, upon request, to the curtailed or interrupted customer.

(iii) Any offer to adjust the operation of the Transmission Provider's system to restore a curtailed or interrupted transaction must be posted and made available to all curtailed and interrupted Transmission Customers at the same time.

(f) *Posting Transmission Service Schedules Information.* Information on transmission service schedules must be recorded by the entity scheduling the transmission service and must be available on the OASIS for download. Transmission service schedules must be posted no later than seven calendar days from the start of the transmission service.

(g) *Posting Other Transmission-Related Communications.* (1) The posting of other communications related to transmission services must be provided for by the Responsible Party. These communications may include ''want ads'' and ''other communications'' (such as using the OASIS as a Transmission-related conference space or to provide transmission-related messaging services between OASIS users). Such postings carry no obligation to respond on the part of any market participant.

(2) The Responsible Party is responsible for posting other transmission-related communications in conformance with the instructions provided by the third party on whose behalf the communication is posted. It is the responsibility of the third party requesting such a posting to ensure the accuracy of the information to be posted.

(3) Notices of transfers of personnel shall be posted as described in § 37.4(b)(2).

**§ 37.7 Auditing Transmission Service Information.**

(a) All OASIS database transactions, except other transmission-related communications provided for under § 37.6(g)(2), must be stored, dated, and time stamped.

(b) Audit data must remain available for download on the OASIS for 90 days. The audit data are to be retained and made available upon request for three years from the date when they are first posted.

**§ 37.8 Implementation schedule for OASIS requirements; phases.**

Each Transmission Provider must develop or participate in an OASIS that meets the requirements of this part and that is in operation by November 1, 1996. Each Transmission Provider must be in compliance with the standards of conduct prescribed in § 37.4 by November 1, 1996.

[NOTE: This attachment will not appear in the Code of Federal Regulations.]

ATTACHMENT 1.—LIST OF COMMENTERS TO RIN NOPR

| Number | Commenter name | Abbreviation |
|---|---|---|
| 1 | ABB Systems Control | (ABB) |
| 2 | Allegheny Power Service Corporation | (Allegheny) |
| 3 | American Electric Power | (AEP) |
| 4 | American Public Power Association | (APPA) |
| 5 | City of Anaheim, CA | (Anaheim) |
| 6 | Arizona Public Service Company | (Arizona) |
| 7 | Bangor Hydro-Electric Company | (Bangor) |
| 8 | Basin Electric Power Cooperative | (Basin EC) |
| 9 | Bonneville Power Administration | (BPA) |
| 10 | California PUC | (CA Com) |
| 11 | Carolina Power & Light Company | (Carolina P&L) |
| 12 | Central Hudson Gas & Electric Corp | (Central Hudson) |
| 13 | Central Illinois Public Service Company | (Central Illinois Public Service) |
| 14 | CINergy Corporation | (CINergy) |
| 15 | Coalition for a Competitive Electric Market | (CCEM) |
| 16 | Colorado Springs Utilities | (CSU) |
| 17 | Commonwealth Edison Company | (Com Ed) |
| 18 | Consolidated Edison Company | (ConEd) |

[NOTE: This attachment will not appear in the Code of Federal Regulations.]

ATTACHMENT 1.—LIST OF COMMENTERS TO RIN NOPR

| Number | Commenter name | Abbreviation |
|---|---|---|
| 19 | Consumers Power Company | (Consumers Power) |
| 20 | Continental Power Exchange | (Continental Power Exchange) |
| 21 | CSW Companies | (CSW) |
| 22 | Dayton Power and Light Company | (Dayton P&L) |
| 23 | Detroit Edison Company | (Detroit Edison) |
| 24 | Duke Power Company | (Duke) |
| 25 | Edison Electric Institute | (EEI) |
| 26 | El Paso Electric Company | (El Paso) |
| 27 | Electric Generation Association | (EGA) |
| 28 | Electric Reliability Council of Texas | (ERCOT) |
| 29 | Entergy Services, Inc | (Entergy) |
| 30 | Florida Electric Power Coordinating Group | (Florida CG) |
| 31 | Florida Power Corporation | (Florida Power Corp) |
| 32 | Florida PSC | (FL Com) |
| 33 | Fuel Managers Association | (Fuel Managers) |
| 34 | ''How'' Industry Working Group (EPRI) | (How Group) |
| 35 | Idaho Power Company | (Idaho) |
| 36 | Indiana Utility Regulatory Commission | (IN Com) |
| 37 | Indianapolis Power & Light Company | (Indianapolis P&L) |
| 38 | Klein, Stanley A | (Klein) |
| 39 | Long Island Lighting Company | (LILCO) |
| 40 | Madison Gas and Electric Company | (Madison G&E) |
| 41 | Maine Public Service Company | (Maine Public Service) |
| 42 | MidAmerican Energy Company | (MidAmerican) |
| 43 | Mid-Continent Area Power Pool | (MAPP) |
| 44 | Minnesota Power & Light Company | (Minnesota P&L) |
| 45 | Missouri Public Service Commission | (MO & AK Com's) |
| 46 | Montana Power Company | (Montana Power) |
| 47 | National Association of Regulatory Utility Commissioners | (NARUC) |
| 48 | National Independent Energy Producers | (NIEP) |
| 49 | National Rural Electric Cooperative Association | (NRECA) |
| 50 | Nebraska Public Power District | (NE Public Power District) |
| 51 | New England Power Pool | (NEPOOL) |
| 52 | New York Mercantile Exchange | (NYMEX) |
| 53 | New York Power Pool | (NYPP) |
| 54 | New York State Electric & Gas Corp | (NYSEG) |
| 55 | New York State PSC | (NY Com) |
| 56 | NorAm Energy Services, Inc | (NorAm) |
| 57 | North American Electric Reliability Council | (NERC) |
| 58 | North Carolina Electric Membership Corp | (NCEMC) |
| 59 | Northeast Texas Electric Cooperative, Inc | (NTEC) |
| 60 | Northeast Utilities | (NU) |
| 61 | Northern States Power Companies | (NSP) |
| 62 | Nucor Corporation | (Nucor) |
| 63 | Oak Ridge National Lab, Energy Division | (Oak Ridge) |
| 64 | Ohio Edison Company | (Ohio Edison) |
| 65 | Ohio PUC | (Ohio Com) |
| 66 | Oklahoma Corporation Commission | (OK Com) |
| 67 | Oklahoma Gas & Electric | (Oklahoma G&E) |
| 68 | Omaha Public Power District | (Omaha PPD) |
| 69 | Ontario Hydro | (Ontario Hydro) |
| 70 | Orange and Rockland Utilities, Inc | (Orange & Rockland) |
| 71 | Oregon Trail Electric Consumers Cooperative | (Oregon EC) |
| 72 | Otter Tail Power Company | (Otter Tail) |
| 73 | Pacific Gas and Electric Company | (PG&E) |
| 74 | PacifiCorp | (PacifiCorp) |
| 75 | Pennsylvania—New Jersey—Maryland Power Pool | (PJM) |
| 76 | Pennsylvania Public Utility Commission | (PA Com) |
| 77 | Public Generating Pool | (Public Generating Pool) |
| 78 | Public Service Company of New Mexico | (PSNM) |
| 79 | Sacramento Municipal Utility District | (SMUD) |
| 80 | Salt River Project | (Salt River) |
| 81 | San Diego Gas & Electric Company | (San Diego G&E) |
| 82 | Seattle City Light | (Seattle) |
| 83 | Services-Oriented Open Network Technologies, Inc. | (SONETECH) |
| 84 | Sierra Pacific Power Company | (Sierra) |
| 85 | South Carolina Electric & Gas Company | (SCE&G) |
| 86 | South Carolina Public Service Authority | (SC Public Service Authority) |
| 87 | Southern California Edison Company | (SoCal Edison) |
| 88 | Southern Company Services, Inc | (Southern) |
| 89 | Southwest Transmission Dependent Utility Group | (Southwest TDU Group) |

[NOTE: This attachment will not appear in the Code of Federal Regulations.]

ATTACHMENT 1.—LIST OF COMMENTERS TO RIN NOPR

| Number | Commenter name | Abbreviation |
|---|---|---|
| 90 | Southwestern Public Service Company | (Southwestern) |
| 91 | Sunflower Electric Power Cooperative | (Sunflower) |
| 92 | City of Tallahassee, FL | (Tallahassee) |
| 93 | Tampa Electric Company | (Tampa) |
| 94 | Tennessee Valley Authority | (TVA) |
| 95 | Texas Utilities Electric Company | (Texas Utilities) |
| 96 | Transmission Access Policy Study Group | (TAPS) |
| 97 | Tucson Power Electric Power Company | (Tucson Power) |
| 98 | Union Electric Company | (Union Electric) |
| 99 | United Illuminating Company | (United Illuminating) |
| 100 | U.S. Department of Energy, Office of Energy Research | (DOE) |
| 101 | UTC, The Telecommunications Association | (UTC) |
| 102 | Virginia Electric and Power Company | (VEPCO) |
| 103 | Western Group | (Western Group) |
| 104 | Wisconsin Power & Light | (WP&L) |

BILLING CODE 6717–01–P

[NOTE: This attachment will not appear in the Code of Federal Regulations.]

## ATTACHMENT 2

**Docket No. RM95-9**

Form Approved
OMB No. 1902-0173
Expires February 28, 1999

# FEDERAL ENERGY REGULATORY COMMISSION

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# STANDARDS

# AND

# COMMUNICATION PROTOCOLS

# FOR

# OPEN ACCESS SAME-TIME INFORMATION SYSTEM

# (OASIS)

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**Version 1.0**

**(April 24, 1996)**

The public burden for the development and initial operation of this information requirement is estimated to average 1,879 reporting hours and 418 record keeping hours per public utility. The estimate includes the time required to review and implement the standards, develop the necessary software, search existing data sources, gather and maintain the data, complete and review the information. Send comments regarding this burden estimate or any other aspect of this information requirement, including suggestions for reducing the burden, to each of the following:

Federal Energy Regulatory Commission
Attention: Michael Miller, Information Services Division
888 First Street, N.E.
Washington, DC 20426

Office of Management and Budget
Office of Information and Regulatory Affairs
Attention: Desk Officer for the Federal Energy Regulatory Commission
Washington, DC 20503

You shall not be penalized for failure to respond to this collection of information unless the collection of information displays a valid OMB control number.

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# GENERAL INFORMATION

## I. Purpose

In Order No. 888 the Commission requires public utilities to provide comparable access to transmission services and transmission system information. Order No. 889 amends the Commission's regulations, by adding 18 CFR Section 37, to require utilities to provide information about the availability of transmission service on an Open Access Same-Time Information System (OASIS). This information will be provided both through displays and through standardized files that users can download to their own computers. Certain information will also be uploaded through standardized forms and files transmitted from customers' computers to the OASIS. The regulations require public utilities to comply with standardized procedures and communication protocols governing the means by which the information is made available. This document contains the standardized data sets that show the information that must be provided, standard operating procedures and the protocols for communication of that information.

## II. Who Must Comply

All jurisdictional public utilities that are required to maintain an OASIS under Part 37 of the Commission's regulations must comply with these standards and communication protocols.

## III. Implementation Date

Utilities must implement these standards and protocols by November 1, 1996.

## IV. Development Of The Standards And Communication Protocols

The standards and communication protocols were developed by the electric utility industry through a working group facilitated by EPRI. This working group included representatives from all major segments of the electric utility industry, such as utilities and marketers, as well as other interested parties such as computer and software firms. The standards and communication protocols represent a broad agreement of the working group.

As the industry obtains experience with OASIS and the new operating environment created by Order No. 888, the standards and communication protocols will need to be revised. The Commission has requested the industry to continue to develop standards and identify necessary changes. The Commission will provide all

interested parties with notice and an opportunity for comment on proposed changes to this document.

# V. OASIS STANDARDS AND COMMUNICATION PROTOCOLS

## 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 which 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 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 a 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 chose 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:** A OASIS Node may support a single individual Primary Provider (plus any Secondary Providers) or may support many 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 for Users using private leased line internet network connections.

d. **Hyper Text Transport Protocol (HTTP)** shall be supported on the OASIS Node so that Users 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 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, and optionally Secure Sockets Layer (SSL), shall be used by TSIPs as a standard tool for presenting information to Users.

b. **HTML Forms** shall be provided by the TSIPs for Customers to use to request purchases from a Provider. The activation of a form (sending a filled-out form to the Provider) shall be time-stamped and logged as part of the audit trail.

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)** shall be supported to provide tools for operating and managing the network, if private interconnections between OASIS

Nodes are established.

e. **E-mail** shall be supported by the OASIS Node for exchanges between Providers and Customers, including the sending of attachments. The protocols supported shall include, as a minimum, the Simple Messaging Transfer Protocol (SMTP), POP, and 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 Providers, publicly available documentation or menus shall list the OASIS Node addresses of all Primary, Secondary, and Value-Added Providers.

b. **Initial User Registration:** TSIPs shall require Users to register with a Provider before they are permitted to access the Provider's TS information. This registration shall require at least the following information:

- Company name
- Name of company OASIS Account Administrator
- Name of the individual user(s) within a company (each individual user is considered as a separate User with possibly different levels of authority)
- User password
- Supplemental information such as address, telephone number, fax number, and e-mail

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

a. **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. **Text Display:** TSIPs shall format all TS information as plain or HTML 3.0 text such that it may be viewed and read directly by Users without requiring them to download it. This text shall be in clear English as much as possible, with the definitions of any mnemonics or abbreviations available on-line. The templates for displaying the text are described 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 on transaction request forms.

c. **Downloading Capability:** Users shall be able to download from a OASIS Node the TS information in electronic format as a file. The rules for formatting of this data are described in section 4.4.

d. **On-Line Data Entry on Forms:** Customers shall be permitted to fill out on-line the Service Request forms supplied by the TSIPs on the OASIS Nodes, 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 "file" input type available in HTML 3.0. This capability shall permit a Customer to upload a file (or

files) using standard Web browsers by providing an input space to specify a file 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

TO BE COMPLETED BY INDUSTRY

## 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. The User may use the manual or automatic refresh 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 Customers.

## 3.6 SERVICE REQUEST TRANSACTION SUPPORT

The requirements for supporting Service Request transactions are as follows:

a. **Basic Service Request Transaction Support:** Providers shall support basic Service Request transaction requests from the Customer. All forms shall be formatted according to the Service Request templates described in Section 4. Specifically, the following four types of transactions shall be supported as a minimum:

- A Customer issues a Service Request to a Provider, either by data entry on an on-line form or by uploading a filled-out form.
- The TSIP posts the receipt of the Service Request to the Customer.
- The Provider responds by posting the Service Request Status of the Customer's Service Request each time it changes. The changed status includes: received by the Provider, accepted by seller, accepted by customer, confirmed for scheduling, withdrawn, or refused / rejected.
- The Provider issues an acknowledgment of his acceptance or denies the Service Request.
- The Customer issues an acknowledgment of his acceptance or withdraws the

Service Request.

- A Customer who wishes to resell transmission rights shall issue a request to the TSIP for a product posting and then becomes a seller of transmission rights.

## 4. INTERFACE REQUIREMENTS

### 4.1 INFORMATION MODEL CONCEPTS

#### 4.1.1 ASCII-Based Information Model

a. **ASCII-Based OASIS Templates:** For displaying information to Users, TSIPs shall use the specified OASIS Templates. These Templates define the information which, as a minimum, must be presented to Users, both in the form of graphical displays and as downloaded files, whenever they access the Template. Users shall be able to request Template information using the request-response data flows (Query Variables for use with HTTP) that are defined in Appendix B. Responses shall contain the same Query Variables containing the results of the query. 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.

   Additional information may be presented in a display or a file at the discretion of the TSIP. However, no User shall be obligated or expected to recognize or use this additional information. As stated above, although the minimal ***contents*** of the displays are precisely defined, the actual graphical display ***formats*** of the TS information are beyond the scope of the OASIS requirements.

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 4.4). 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.

### 4.2 OASIS NODE CONVENTIONS AND STRUCTURES

#### 4.2.1 OASIS Node Naming Requirements

The following are the OASIS Node naming requirements:

a. **Node Naming Convention:** In order to provide a consistent method for locating a OASIS Node, the standard Internet naming convention shall be used. All OASIS Node names shall be unique, and shall be registered to the OASIS Management Organization at the web site http://www.tsin.com. OASIS Node names shall be stored in a DNS name directory, which shall be accessible by Customers as an HTML page.

b. **URL Structure:** The OASIS Node naming conventions shall use standard URL structures.

c. **OASIS Node Home Directory:** The home directory name on a OASIS Node shall be "OASIS" to identify that the directory is related to the OASIS. The name of each Primary Provider and Secondary Provider with shall be listed under "OASIS" with a "hot-link", so that Users can navigate directly to Provider Home Pages. Common Gateway Interface (CGI) scripts shall be located in the directory "cgi" as follows:

**//(OASIS Node name)/OASIS/(Transmission Provider)/cgi/(cgi script name)**

Where:

**(OASIS Node name)** is the World Wide Web URL address of the OASIS Information Provider.
**Transmission Provider** is the 4 character acronym of the transmission provider
**(cgi script name)** is (register ¦ (template name)) (?search)
Where:
**register** is the name of the cgi script program to register a user
**(template name)** is name of the template cgi script for the template of data being requested, see Appendix B, Query Variables.
**(?search)** a list of query variable with their settings

Example:

To request the hourly schedule template at WXYZ Co.

http://www.wxyz.com/oasis/wxyz/cgi/scheduledatc
?TEMPLATE=scheduledatc&VER=1&FMT=html
&DATETIMETZ=19960412040000PD&PROVIDER=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 elements shall be defined in the Data Element Dictionary which will be stored in the OASIS Node directory:

http://(OASIS Node Name)/OASIS/(Transmission Provider)/(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 global Data Dictionary is defined in Appendix A.

The local data element names, such as Path Codes, may be unique within the Primary Provider's territory, while universally accessible data element names shall be globally unique. In posting OASIS information, TSIPs shall use only the names listed in the

Data Element Dictionary.

Each entry in the Data Element Dictionary shall contain as a minimum:

- Unique name of the data element
- Description of the data element
- Formats for all primitive data elements shall include:
  - Character string (ASCII), Floating point, integer, Boolean, universal time format, registered object definition, etc.
  - Length of field
- Units
- Lists of valid values that the data element could assume, limits on numerical values, or other validation criteria.
- Definition of the data element

### 4.2.3 General Rules for OASIS Templates

Section 4.3 lists the set of OASIS Templates. These OASIS Templates are intended to be used precisely as shown for download and upload of data. For on-line display, all relevant information must be provided but flexibility is permitted as to how the data are displayed. 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. **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.

c. **Time Stamp:** Each OASIS Template shall include a timestamp indicating when it was created or last updated.

d. **Column Headings:** OASIS Template column headings shall define the elementary Data Element Dictionary entries for the data values. The order of the column headings shall define the order that the values are presented. Within a table, the ordering of some column headings may be selected by Users from pull-down menus. For tables with selectable columns, the number of columns displayed or selected for download shall be determined by entry into a specified field.

e. **Rows:** The table rows below the column headings shall represent the data being presented.

f. **Row Wrap:** If the width of tables is larger than can be displayed in readable size on

a single screen, the rows shall either wrap on the screen or shall be accessible through horizontal scrolling.

g. **Documentation:** OASIS Information shall be in non-cryptic English, with all mnemonics defined in 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.

- HTML "Hot-Links" or other pointer mechanisms may be provided for column headings in OASIS Templates which permit the User to access documentation describing the meaning, type, and format of the data in the column.
- HTML "Hot-Links" or other pointer mechanisms may be provided for data in the OASIS Templates to explanations, comments, constraints, and other notes.
- 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.

### 4.2.4 Display Request and Response Procedures

#### 4.2.4.1 Display Request

A request for the display of the information in a OASIS Template shall consist of the following minimal input (either through direct data entry or through selection procedures):

TEMPLATE=(template name)

Additional Query Variables may be included to specify non-default data, either through direct data entry or through selection procedures. These additional Query Variables shall be prefixed with an ampersand (&), suffixed with an equal sign (=), and followed by the appropriate parameters.

If repeated values are given for a Query Variable, the variable name will be suffixed with a digit starting with "1" and increasing by one for each repeated variable, for example:

*&PATH1=ABC-XYZ &PATH2=ABC-RST*

#### 4.2.4.2 Display Response

The information in the OASIS Template requested shall be presented as a display, using the display formats defined by the TSIP.

### 4.2.5 File Request, File Download Response, and Form Upload Rules and Procedures

#### 4.2.5.1 File Request Rules and Procedure

A request to download a file of the information in a OASIS Template to a User site shall consist of the following minimal input (either through direct data entry, through selection procedures on a display, or through an uploaded computer file):

TEMPLATE=(*template name*)
&VER=(*nn.n*)
&FMT=(aaaa)
$DTZ= (nnnnnnnnnnnnnnaa)
$PROVIDER=(aaaa)

Additional Query Variables may follow to specify specific data; otherwise default data will be assumed. These additional Query Variables shall be prefixed with an ampersand (&), suffixed with an equal sign (=), and followed by the appropriate parameters.

If repeated values are given for a Query Variable, the variable name will be suffixed with a digit starting with "1" and increasing by one for each repeated variable, for example:

*&PATH1=ABC-XYZ &PATH2=ABC-RST*

#### 4.2.5.2 File Download Response Rules and Procedures

The response to a request for the download of Template information into file at the User site shall conform to the following rules:

a. **Download ASCII Delimited Files:** Users shall always be able to download all OASIS Template information in ASCII with no special embedded codes.

   Query Variables shall be used to define what data is being downloaded. Each Query Variable (containing the response to the query) shall be followed by an equals sign (=) and the parameters associated with the variable.

   Each record shall be separated by a carriage return plus line feed (↵). The fields within a record shall be delimited by a comma (,). Text fields shall be enclosed with double quotes (").

b. **Data Compression:** Data compression of downloadable files shall be supported, using ZIP compression methods.

c. **Non-ASCII Formats:** Formats in addition to ASCII may be used (at the TSIP's option). If formats other than ASCII are available for downloading or uploading

specific data elements, these formats shall be indicated in the Data Element Dictionary for those data elements.

d. **Partial OASIS Template Download**: TSIPs shall either divide large OASIS Templates into separate files for downloading or shall permit the User to select which rows of a OASIS Template they wish to download.

Every download file for a OASIS Template shall contain the following records in the indicated order.

The following 6 records shall always precede the Template information:

REQUEST_STATUS=*nnn*↵
VERSION=*nn.n*↵
DATETIMETZ=*nnnnnnnnnnnnnnaa*↵
PRIMARY_PROVIDER=*aaaaaaaaaaaaaaaaaaaaaaaaaa*↵
DATA_ROWS=*nnn*↵
COLUMN_HEADERS=*aaaa.....aaaaaa*↵

The DATA_ROWS record contains the number of data records following the COLUMN_HEADERS. The COLUMN_HEADERS record contains a column for each field that is required in the Template, in the order shown in the Template.

The Template information then follows as records which correspond one-to-one with the column headings. The order of the records shall be that a column only changes its value after all columns to the right of it have changed their values. In other words, the rightmost column varies first, then the second rightmost, on back to the leftmost column which varies only after all columns to the right have varied.

### 4.2.5.3 Form Upload Rules and Procedures

a. **Upload using HTTP Protocol:** Customers and Providers shall be able to upload OASIS Templates using the file request format of section 4.2.5.1.

b. **Upload ASCII Delimited Files:** Customers and Providers shall be able to upload OASIS Templates in ASCII with no special embedded codes.
Query Variables shall be used to define what data is being uploaded. Each Query Variable shall be followed by an equals sign (=) and the parameters associated with the variable.

Each record shall be separated by a carriage return plus line feed (↵). The fields within a record shall be delimited by a comma (,). Text fields shall be enclosed with double quotes (").

Every ASCII delimited upload file reflecting an input OASIS Template (as opposed to a file requesting Template information) shall contain the following records in the indicated order.

TEMPLATE=(template name)↵ (If template CGI procedure is called then this record is optional)
VERSION=*nn.n*↵
OUTPUT_FORMAT=*aaaa*↵
DATETIMETZ=*nnnnnnnnnnnnnnaa*↵
PRIMARY_PROVIDER=*aaaaaaaaaaaaaaaaaaaaaaaaaa*↵
DATA_ROWS=*nnn*↵
COLUMN_HEADERS=*aaaa.....aaaaaa*↵

The DATA_ROWS record contains the number of data records following the COLUMN_HEADERS.

The COLUMN_HEADERS record contains a column for each field that is required in the Template, in the order shown in the Template. The Template information then follows as records which correspond one-to-one with the column headings.

c. **Data Compression:** Data compression of large uploaded files shall be supported, using ZIP compression methods.

d. **Default User Directory:** The default customer directory for upload of files shall be /OASIS/(Provider)/upload
Where: Provider is the 4 character acronym of the Primary Provider.

## 4.3 TEMPLATE DESCRIPTIONS

The following OASIS Templates are required as a minimum. The definitions of the data elements are listed in the Data Dictionary in Appendix A. The definitions of the Query Variables are listed in the Query Variable Dictionary in Appendix B.

TSIPs must provide a more detailed supplemental definition of the terms Point of Receipt (POR) and Point of Delivery (POD), clarifying how the terms are being used. If POR and POD are not used, then Path Name must include directionality.

Most of the Templates represent response information, sent from the OASIS Node to the Customer. Some, as noted in their descriptions, are input information, sent from the Customer to the OASIS Node.

### 4.3.1 Summary System Information Templates

The Summary System Information Templates provide information on a specific path with ATC being offered by one or more Providers (Primary and Secondary Providers).

a. **Summary Path Hourly ATC Template (sumpathhouratc)**
- PROVIDERS (all PROVIDERS supplying CAPACITY for Path)
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- INTERFACE_TYPE
- COMMENTS
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE

b. **Summary Path Daily ATC Template (sumpathdayatc)**
- PROVIDERS (all PROVIDERS supplying CAPACITY for Path)
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- INTERFACE_TYPE
- COMMENTS
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE

c. **Summary Monthly ATC Template (sumpathmonthatc)**
- PROVIDERS (all PROVIDERS supplying CAPACITY for Path)
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- INTERFACE_TYPE
- COMMENTS
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE

d. **Summary Yearly ATC Template (sumpathyearatc)**
- PROVIDERS (all PROVIDERS supplying CAPACITY for Path)
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- INTERFACE_TYPE

- COMMENTS
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE

### 4.3.2 Provider System Information Templates

The OASIS Templates which display Provider TS Information shall provide the following information. Depending upon the Query Variables, the information will be provided with Providers per Path or Paths per Provider or other combinations:

a. **Hourly Capacity Available for Purchase** (houratc)is used to display the hourly ATC that is available for sale by a Primary Provider or Reseller for one or more paths.
   - PRIMARY_PROVIDER
   - PATH_NAME
   - POINT_OF_RECEIPT
   - POINT_OF_DELIVERY
   - BEGDATETZ
   - ENDDATETZ
   - SELLER_NAME
   - INTERFACE_TYPE
   - ANCILLARY_SERVICES_REQUIREMENTS
   - COMMENTS
   - TIME_OF_LAST_UPDATE
   - DTMMTZ (Date and Time Available)
   - CAPACITY
   - CAPACITY_TYPE
   - PRICE
   - PRICE_UNITS

b. **Daily Capacity Available for Purchase** (dayatc) is used to display the daily ATC that is available for sale by a Primary or Secondary Provider.
   - PRIMARY_PROVIDER
   - PATH_NAME
   - POINT_OF_RECEIPT
   - POINT_OF_DELIVERY
   - BEGDATETZ
   - ENDDATETZ
   - SELLER_NAME
   - INTERFACE_TYPE
   - ANCILLARY_SERVICES_REQUIREMENTS
   - COMMENTS
   - TIME_OF_LAST_UPDATE
   - DTMMTZ (Date and Time Available)

- CAPACITY
- CAPACITY_TYPE
- PRICE
- PRICE_UNITS

c. **Monthly Capacity Available for Purchase** (monthatc) is used to display the monthly ATC that is available for sale.
- PRIMARY_PROVIDER
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- BEGDATETZ
- ENDDATETZ
- SELLER_NAME
- INTERFACE_TYPE
- ANCILLARY_SERVICES_REQUIREMENTS
- COMMENTS
- TIME_OF_LAST_UPDATE
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE
- PRICE
- PRICE_UNITS

d. **Yearly Capacity Available for Purchase** (yearatc) is used to display the yearly ATC that is available for sale. (Optional)
- PRIMARY_PROVIDER
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- BEGDATETZ and ENDDATETZ
- SELLER_NAME
- INTERFACE_TYPE
- ANCILLARY_SERVICES_REQUIREMENTS
- COMMENTS
- TIME_OF_LAST_UPDATE
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE
- PRICE
- PRICE_UNITS

e. **Hourly Schedule** (scheduledatc) is used to display a Provider's scheduled transmission capacity usage.

- PRIMARY_PROVIDER
- PATH_NAME(S)
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- CURTAILMENT_PRIORITY
- SOURCE
- SINK
- ASSIGNMENT_REF
- INTERFACE_TYPE
- CUSTOMER_REQUEST_IDENTITY
- DEAL_REFERENCE
- COMMENTS
- TIME_OF_LAST_UPDATE
- DTMMTZ (Date and Time Available)
- CAPACITY
- CAPACITY_TYPE
- PRICE
- PRICE_UNITS

### 4.3.3 Secondary Provider (Reseller) Posting Templates

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

a. **Secondary Provider Capacity Posting (Input)** (secondatcpost) shall be used by the Secondary Provider to post on to the OASIS Node the transmission capacity for resale.
   - PRIMARY_PROVIDER
   - SELLER_NAME
   - PATH_NAME
   - POINT_OF_RECEIPT
   - POINT_OF_DELIVERY
   - INTERFACE_TYPE
   - ANCILLARY_SERVICES_REQUIREMENTS
   - REQUEST_REF
   - BEGDATETZ
   - ENDDATETZ
   - CAPACITY
   - CAPACITY_TYPE
   - TERMS_AND_CONDITIONS
   - SELLER_NAME
   - SELLER_COMPANY
   - SELLER_PHONE

- SELLER_FAX
- SELLER_EMAIL
- PREV_ASSIGN_REF
- REASSIGNED_CAPACITY (Capacity from each previous assignment being offered for sale)
- REASSIGNED_BEGDATETZ
- REASSIGNED_ENDDATETZ
- COMMENTS
- HOUR
- PRICE
- PRICE_UNITS

b. **Secondary Provider (Reseller) Capacity Remove (Input)** (secondatcremove) shall be used by the Secondary Provider to remove a posting of transmission capacity.
- PRIMARY_PROVIDER
- SELLER_NAME
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- INTERFACE_TYPE
- ANCILLARY_SERVICES_REQUIREMENTS
- REQUEST_REF
- BEGDATETZ
- ENDDATETZ
- CAPACITY(Total capacity being removed)
- CAPACITY_TYPE
- TERMS_AND_CONDITIONS
- SELLER_NAME
- SELLER_COMPANY
- SELLER_PHONE
- SELLER_FAX
- SELLER_EMAIL
- PREV_ASSIGN_REF
- REASSIGNED_CAPACITY (Capacity being removed from each previous reassignment)
- REASSIGNED_BEGDATETZ
- REASSIGNED_ENDDATETZ
- COMMENTS

**4.3.4 <u>Services Information Templates</u>**

a. **Ancillary Services Available for Purchase** (servavail) is used to provide information regarding the different services that are available for sale by a Service Provider.
- ANCILLARY_SERVICE_ PROVIDER

- ANCILLARY_SERVICE_CATEGORY
- ANCILLARY_SERVICE_TYPE
- SELLER_NAME
- SELLER_COMPANY
- SELLER_PHONE
- SELLER_FAX
- SELLER_EMAIL
- PRICE
- PRICE_UNITS
- DTTZTS_POSTED
- DTTZTS_EXPIRES
- COMMENTS
- SERVICE_DESCRIPTION

b. **Services Transmission** (servtrans) is used to provide detailed information regarding the transmission services that are available for sale by a Primary Provider in the Templates in Section 4.3.2. This Template is used to summarize tariff information for the convenience of the Customer. Fields which are not used may have "Not Applicable" assigned to them. (Optional)

- TARIFF_REFERENCE
- PRIMARY_ PROVIDER
- SERVICE_CATEGORY
- SERVICE_TYPE
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- RATE_INFORMATION
- UNITS
- COMMENTS
- RECALLABLE_REASONS
- RECALLABLE_MINIMUM_NOTICE
- RECALLABLE_QUEUE_ORDER
- RECALLABLE_RESUMPTION
- CURTAILMENT_REASONS
- CURTAILMENT_MINIMUM_NOTICE
- CURTAILMENT_QUEUE_ORDER
- CURTAILMENT_RESUMPTION
- SERVICE_TIMING_MINIMUM_DURATION
- SERVICE_TIMING_MAXIMUM_DURATION
- CUSTOMER_PAYMENT
- ASSIGNABILITY
- INCREASE_OBLIGATION
- LOSS_OBLIGATION
- CUSTOMER_REQUIREMENTS

- PROVIDER_OPTIONS

### 4.3.5 "Service Request" Transaction Templates

The Primary Provider shall assign a unique assigned reference identifier for each customer request to purchase capacity or services. This identifier will be used to track the request through various stages.

a. **Customer Capacity Purchase Request (Input)** (atcrequest) is used by the Customer to request the purchase of transmission services.
   - CUSTOMER
   - PATH_NAME
   - POINT_OF_RECEIPT
   - POINT_OF_DELIVERY
   - SELLER_NAME (Secondary Provider)
   - SOURCE
   - SINK
   - CAPACITY
   - CAPACITY_TYPE
   - BEGDATETZ
   - ENDDATETZ
   - REQUEST_REF
   - PRICE
   - PRICE_UNITS
   - DISCOUNT
   - DEAL_REFERENCE
   - ANCILLARY_SERVICES_REQUIREMENTS
   - INTERFACE_TYPE
   - COMMENTS

b. **TSIP Posting of "Acknowledge Receipt" of Request** (atcacknowledge)is used to acknowledge that the Customer's request was received by the OASIS Node. It does not imply that the Provider has received the request.
   - CUSTOMER
   - PATH_NAME
   - POINT_OF_RECEIPT
   - POINT_OF_DELIVERY
   - SELLER_NAME
   - SOURCE
   - SINK
   - CAPACITY
   - CAPACITY_TYPE
   - BEGDATETZ
   - ENDDATETZ

- ASSIGNMENT_REF
- REQUEST_REF
- PRICE
- PRICE_UNITS
- DISCOUNT
- DEAL_REFERENCE
- ANCILLARY_SERVICES_REQUIREMENTS
- INTERFACE_TYPE
- COMMENTS

c. **Provider Capacity Purchase Status Response to Customer Request** (atcstatus) is posted upon the request of a Customer, to indicate the status and queue of the request. It is almost identical to the Customer Purchase Request, but includes a Status field, a Queue field, and an Assignment Reference identifier assigned by the Primary Provider, which will be used to track all transactions for specific Capacity.

When a Customer calls up the Template, all posted requests for that Customer are retrieved. Only the authorized Customer is permitted to view this information.

When a Secondary Provider calls up the Template, all posted requests for that Secondary Provider are retrieved. Only the authorized Secondary Provider is permitted to view this information.

The following information is included:

- PRIMARY_PROVIDER
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- SELLER_NAME
- SOURCE
- SINK
- CAPACITY (of total transaction)
- CAPACITY_TYPE
- BEGDATETZ
- ENDDATETZ
- REQUEST_REF
- CUSTOMER
- PRICE
- PRICE_UNITS
- DISCOUNT
- DEAL_REFERENCE
- SERVICE_DESCRIPTION
- ASSIGNMENT_REF

- STATUS = **None, Pending, Received, Accepted by Customer, Accepted by Seller, Confirmed for Scheduling, Withdrawn, or Rejected**
- INTERFACE_TYPE
- DTTZTS_QUEUED
- COMMENTS
- PREV_ASSIGN_REF
- REASSIGNED_CAPACITY (Capacity from each previous transaction)
- REASSIGNED_STATUS= **Posted, Received, Accepted by Seller, Accepted by Customer, Withdrawn, or Rejected**
- REASSIGNED_BEGDATETZ
- REASSIGNED_ENDDATETZ
- COMMENTS

d. **Customer's Purchase Acknowledge Acceptance (Input)** (atcaccept) is used by the Customer to acknowledge his agreement or rejection of a purchase after the Provider has indicated that the purchase request is accepted. It is identical to the Provider Response.

- CUSTOMER
- PRIMARY_ PROVIDER
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- SELLER_NAME
- SOURCE
- SINK
- CAPACITY
- CAPACITY_TYPE
- BEGDATETZ
- ENDDATETZ
- REQUEST_REF
- PRICE
- PRICE_UNITS
- DISCOUNT
- DEAL_REFERENCE
- SERVICE_DESCRIPTION
- ASSIGNMENT_REF
- STATUS =**Accepted or Rejected**
- INTERFACE_TYPE
- DTTZTS_QUEUED
- COMMENTS

e. **Seller Form to Acknowledge Capacity Purchase Status (Input)** (sellerack) is used by a Secondary Provider to indicate the status and queue of a request by a Customer. It is almost identical to the Customer Purchase Request, but includes a Status field, a

Queue field, and a Schedule Reference number assigned originally by the Primary Provider, which will be used to track all transactions for the specific Capacity.

The following information is included in the Form:

- CUSTOMER
- PRIMARY_PROVIDER
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- SELLER_NAME
- SOURCE
- SINK
- CAPACITY (Total capacity acknowledged)
- CAPACITY_TYPE
- BEGDATETZ
- ENDDATETZ
- REQUEST_REF
- PRICE
- PRICE_UNITS
- DISCOUNT
- DEAL_REFERENCE
- SERVICE_DESCRIPTION
- ASSIGNMENT_REF
- INTERFACE_TYPE
- DTTZTS_QUEUED
- PREV_ASSIGN_REF
- REASSIGNED_CAPACITY(Previous capacity to be reassigned)
- REASSIGNED_STATUS= **Received, Accepted by Seller, Withdrawn, or Rejected**
- REASSIGNED_BEGDATETZ
- REASSIGNED_ENDDATETZ
- COMMENTS

f. **Seller Form to Reassign Service Rights to Another Customer (Input)** (sellerrassign) is used by the Secondary Provider to ask the Transmission Services Information Provider to reassign some or all of the Seller's rights to Services to another Customer, following a confirmation of a sale of these services from that Customer.

- CUSTOMER
- PRIMARY_PROVIDER
- PATH_NAME
- POINT_OF_RECEIPT
- POINT_OF_DELIVERY
- SELLER_NAME

- SOURCE
- SINK
- CAPACITY (Total capacity being sold)
- CAPACITY_TYPE
- BEGDATETZ
- ENDDATETZ
- REQUEST_REF
- PRICE
- PRICE_UNITS
- DISCOUNT
- DEAL_REFERENCE
- SERVICE_DESCRIPTION
- ASSIGNMENT_REF
- INTERFACE_TYPE
- DTTZTS_QUEUED
- PREV_ASSIGN_REF
- REASSIGNED_CAPACITY (Capacity being sold from each previous assignment)
- REASSIGNED_BEGDATETZ
- REASSIGNED_ENDDATETZ
- REASSIGNED_STATUS = **Accepted or Rejected**
- COMMENTS

**4.3.6 Informal Information Templates**

a. **Provider/Customer Want-Ad Posting Request (Input)** (wantadpost) is used by Providers and Customers who wish to advertise.
   - PROVIDER or CUSTOMER
   - COMPANY
   - PHONE
   - FAX
   - EMAIL
   - DTTZTS_POSTED
   - DTTZTS_EXPIRES
   - KEYWORD
   - SUBJECT
   - WANT-AD

b. **TSIP Posting of Want-Ad Response** (wantadlisting) is the response of the TSIP to a Want-Ad posting request. The contents are identical to the request.
   - PROVIDER or CUSTOMER
   - CONTACT
   - PHONE
   - FAX
   - E-MAIL

- DTTZTS_POSTED
- DTTZTS_EXPIRES
- KEYWORD
- SUBJECT
- WANT-AD

## 4.4 FILE REQUEST AND FILE DOWNLOAD EXAMPLES

### 4.4.1 File Example for Summary Path Hourly ATC

Example of the request and response for path "W/AAAA/PATH-ABC//" for today.

- **Request**

http://(OASIS Node name)/OASIS/wxyz/cgi/sumpathouratc?&ver=1.0&fmt=data&
dtz=19960412043010ED& pprovider=wxyz& path=W/AAA/PATHABC//& relday=0& shr=0&
her=14& capacity_type1=firm& capacity_type2=non-firm

- **Response Data**

```
REQUEST-STATUS=200          ↵        (Successful)
VERSION=1.0↵
DATETIMETZ="19960410113526PD" ↵
PRIMARY_PROVIDER=wxyz↵
DATA_ROWS=30↵
COLUMN_HEADERS="PROVIDER","PATH_NAME","POR","POD","IT","CT","CAP","DTMM
TZ","COMMENTS" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100100PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100100PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100200PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100200PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100300PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100300PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100400PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100400PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100500PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100500PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100600PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100600PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100700PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100700PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100800PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100800PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604100900PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604100900PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604101000PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604101000PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604101100PD","N/A" ↵
```

"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604101100PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604101200PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604101200PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604101300PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604101300PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604101400PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604101400PD","N/A"↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","FIRM",300,"199604101500PD","N/A" ↵
"AAA","W/AAA/PATHABC//","N/A","N/A","E","NON-FIRM",500,"199604101500PD","N/A"↵

### 4.4.2 File Example for Hourly Schedule Data

This example shows a request for the hourly schedule data. This demonstrates how to specify query variables from a file.

- **Request**

URL Request (HTTP method=GET)

http://(OASIS Node name)/OASIS/wxyz/cgi/scheduledatc& ver=1.0& fmt=data& dtz=19960412043010ED& pprovider=wxyz &por=BBB &pod=CCC &relday=1 &hour-start=08 &hour-end=17

URL Request (HTTP method=POST)

$ fetch_http http://(OASIS Node name)/OASIS/wxyz/cgi/OASISdata -f *c:/OASIS/wxyz/upload/inputfile.txt*

Where *inputfile.txt* contains the following:

Template=scheduledatc& ver=1.0 & fmt=data& dtz=19960412044010CD& pprovider=wxyz& por=BBB& pod=CCC &relday=1 &hour-start=08 &hour-end=17

- **Response Data**

REQUEST-STATUS=200↵
VERSION=1.0↵
DATETIMETZ=19960410114702PD↵
PROVIDER=*wxyz*↵
DATA_ROWS=50↵
COLUMN_HEADERS="PATH_NAME","POR","POD","SOURCE","SINK","REF","IT","CUSTOMER","DEAL","CT","CAP","DTMMTZ",...↵
"AAA","AAABBB","BBB","CCC","source","sink","794245","E","BPA","deal","NON-FIRM",50,"199604100800PD","","" ↵
...↵
...↵

"AAA","AAABBB","BBB","CCC","source","sink","795000","E","BPA","deal","FIRM",39,"199604101700PD","","" ↵

### 4.4.3 Customer Capacity Purchase Request

This example shows how a customer might make a request to purchase capacity from a provider. The information to be sent to the provider is specified using Query Variables in a file. The example uses the FETCH_HTTP program to send a file to the OASIS node.

- **Request File purchase.txt**

template= atcrequest& fmt=data& ver=1.0& dtz=19960412043010MD& pprovider=abcd &por=aaa&pod=bbb&path=aaa1bbb1&source=src1& sink=sink1& capacity=100& capacity_type=non-firm& year=1996& month=04&day-start=15& day-end=20& tz=pd& price=1.00& customer=cust1& deal_ref=1234567800& comments="Example purchase request"

FETCH_HTTP Command to send purchase request

$ fetch_http http://(OASIS Node name)/OASIS/abcd/cgi/atcrequest -f c:/OASIS/abcd/upload/*purchase.txt*

- **Response Data**

REQUEST-STATUS=200↵
VERSION=1.0↵
DATATIMEZ=19960412073500PD↵
PRIMARY_PROVIDER=abcd↵
DATA_ROWS=1↵
COLUMN_HEADERS= "BEGDATETZ", "ENDDATETZ", "ASSIGNMENT_REF", "PROVIDER", "PATH", "POR", "POD", "SELLER_NAME", "SOURCE", "SINK", "CAPACITY", "CAPACITY_TYPE", "REQUEST_REF", "DEAL_REFERENCE", "COMMENTS"↵
"19960415000100PD", "19960420002400PD", "ABC998553", "ABC", "AAA1BBB1", "AAA", "AAA", "ABC", "src1", "sink1", "100", "NON-FIRM", "", "1234567800", "Example Purchase Request" ↵

### 4.4.4 Capacity Purchase Status

- **Request URL**

http://(OASIS Node name)/OASIS/abc/cgi/atcstatus? ver=1.0& fmt=data& dtz=19960412043010ED& pprovider=wxyz& customer=cust1& year=1996&month=04

- **Response Data**

REQUEST-STATUS=200 ↵
VERSION=1.0↵
DATATIMEZ=19960412090215PD↵
PRIMARY_PROVIDER=*wxyz*↵
DATA_ROWS=1↵
COLUMN_HEADERS=BEGDATETZ, ENDDATETZ, ASSIGNMENT_REF, PROVIDER, PATH, POR, POD, SELLER_NAME, SOURCE, SINK, CAPACITY, CAPACITY_TYPE, REQUEST_REF,

DEAL_REFERENCE, COMMENTS, STATUS, ASSIGNMENT_REF, DTTZTS_QUEUED, NO_PREF_ASSIGN_REF↵
"19960415000100PD", "19960420002400PD", "ABC998553", "ABC", "AAA1BBB1", "AAA", "AAA", "ABC", "src1", "sink1", "100", "NON-FIRM", "", "1234567800", "Example Purchase Request", "Accepted by Seller", "ABC998532", "19960412080000PD", "0" ↵

### 4.4.5 Customer's Purchase Acknowledge Acceptance (Input)

- ***Customer Input File: accept.txt***

TEMPLATE=atcaccept &VERSION=1.0& FORMAT=data& &dtz=19960412043010ED& provider=wxyz &STATUS="Accepted" & BEGDATETZ=19960415000100PD &ENDDATETZ=19960420002400PD &ASSIGNMENT_REF=ABC998553 &PROVIDER=wxyz &PATH=AAA1BBB1 &POR=AAA &POD=AAA &SELLER_NAME=ABC &SOURCE=src1 &SINK=sink1 &CAPACITY=100 &CAPACITY_TYPE=NON-FIRM &REQUEST_REF= &DEAL_REFERENCE=1234567800 &COMMENTS="Example Purchase Request" &ASSIGNMENT_REF="ABC998532" &DTTZTS_QUEUED=19960412080000PD &NO_PREF_ASSIGN_REF=0

FETCH_HTTP command

$ fetch_http http://(OASIS node name)/OASIS/(provider)/cgi/atcaccept -f c:\OASIS\wxyz\upload*accept.txt*

## 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. **User 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 access to TS Information beyond the lowest Access Privilege.

f. **Service Request Transactions:** Whenever Service Request transactions are implemented entirely over the OASIS, Customer Service Request requests shall require both an individual Customer password for the request, and an individual Provider password for the notification of acceptance.

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:** TSIPs shall be responsible for protecting the OASIS Nodes from 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 Service Request requests.

c. **Access Privilege Read/Write:** A Secondary Provider shall have write access to his own Provider Account on a 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 Customers
- 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:

$$A = N * R \text{ bits/sec}$$

where:

$$N = 5\% \text{ of registered Customers.}$$

and

$$R = 28{,}800 \text{ bits/sec per Customer.}$$

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

$$B = 2 * A \text{ bits/sec}$$

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 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

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 can not 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 can not 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 a 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**.

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 a 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 $\pm 0.5$ second of official time. This synchronization may be handled over the network using NTP, or may be synchronized locally using time standard signals (e.g. WWVB, GPS equipment).

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

## 5.7 TS INFORMATION TIMING REQUIREMENTS

**TO BE COMPLETED BY THE INDUSTRY**

## 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. **Time-Stamped OASIS Performance Log:** All posting of TS information, all updating of TS information, all User logins and disconnects, all User download requests, all Service Request requests, and all other transactions shall be time stamped and stored in a OASIS Performance Log. This OASIS Performance Log shall be the official log for auditing performance, as well as acting as the official record of interactions.

c. **Monitoring Performance Parameters:**TSIPs shall use their best efforts to monitor performance parameters. Any Customer shall be able to read or download these performance statistics.

## 5.10 MIGRATION REQUIREMENTS

The following are the migration requirements:

a. **Support for Legacy Capabilities:** Any time mandated upgrades or modifications to OASIS capabilities and tools are made to the OASIS, TSIPs shall continue to support the existing capabilities and tools for at least 3 months. This overlap will permit Customers the time to upgrade their own systems to reflect these changes.

[NOTE: This appendix will not appear in the Code of Federal Regulations.]

# Appendix A

## Data Element Dictionary

**April 24, 1996**

**Version 1.0**

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| ANCILLARY_SERVICES_ CATEGORY (alias ANC_SERV_CAT) | Category of ancillary services (to be defined) | 1{ALPHANUMERIC}20 | Text | Free-form text | A reference to ancillary service categoried defined by the Provider |
| ANCILLARY_SERVICES_ PROVIDER (alias ANC_SERV_PROVIDER) | Provider of ancillary services | 1{ALPHANUMERIC}25 | Name | Unique value | Name of a provider of ancillary services |
| ANCILLARY_SERVICES_ REQUIREMENTS (alias ANC_SERV_REQ) | Requirements for Ancillary Services | 1{ALPHANUMERIC} 50 | Text | Free-form text | Requirements for Ancillary Services |
| ANCILLARY_SERVICES_ TYPE (alias (ANC_SERV_TYPE) | Type of ancillary services (to be defined) | 1{ALPHANUMERIC}14 | Text | Free-form text | A reference to the ancillary service types defined by the Provider. This provides a sub-category for ANCILLARY_SERVICE_CATEGORY |
| ASSIGNABILITY | Assignability | 2{ALPHA}3 | Boolean | YES or NO | Identifies whether service is assignable or not. |
| ASSIGNMENT_REF (ALIAS ASSIGN_REF) | Reference for Assignment of ATC Rights | 1{ALPHANUMERIC}12 | Text | Unique value | A unique reference number assigned by a Transmission Information Provider to provide a unique record for each transmission service request. |
| BEGDATETZ (alias BEGDTZ) | Beginning Date and Time | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+ tz | Time | Valid date and time | Beginning Date, time, and time zone. Military time is used. Example: 19960212145530PS |
| CAPACITY (alias CAP,ATC) | Available Transmission Capacity or Available Transfer Capability | 1{NUMERIC}12 | MW | Positive number | Transfer capability is the measure of the ability of the interconnected electric systems to reliably 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, power pool, control area, subregion, or NERC region, or portion thereof. |
| CAPACITY_TYPE (alias CAP_TYPE,ATC_TYPE) | Type of Capacity | 1{ALPHANUMERIC}14 | Text | The value is selected from the _TYPE element described by the Provider in his Services_ Transmission | The type of capacity being referenced. *Examples include Firm, Non-Firm; Firm-On-Peak, Firm-Off-Peak, Non-Firm-On-Peak, Non-Firm-Off-Peak;* |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| COLUMN_HEADERS (alias HEADERS | Column headers for data | 1{ALHANUMERIC}Unlimited | Text | Headers surrounded with " and seperated by commas | Example: "PATH_NAME","POR","POD","SOURCE","SINK" |
| COMMENTS | Comments | 1{ALPHANUMERIC} 50 | Text | Free-form text | Informative text. |
| COMPANY | Company of a Primary Provider, Secondary Provider, or Customer | 1{ALPHANUMERIC}25 | Name | Valid name of a Company | The name of a Company who has services for resell. |
| CONTACT | Contact name | 1{ALPHANUMERIC}25 | Name | Valid name of a person | The name of an individual contact. |
| CURTAILMENT_ RESUMPTION (alias CURT_RESUMP) | Curtailment Resumption | 1{NUMERIC}12 | Priority number | Positive number | Priority in which service is resumed. |
| CURTAILMENT_MINIMUM_ NOTICE (alias CURT_MIN_NOTICE) | Curtailment Minimum Notice | 1{ALPHANUMERIC}16 | Time in Hours | Positive number | Minimum time to provide notice of curtailment of service. |
| CURTAILMENT_PRIORITY (alias CP) | Curtailment Priority | 1{NUMERIC}3 | Priority number | Positive number | The order in which the schedules will be curtailed. |
| CURTAILMENT_QUEUE_ORDER (alias CURT_QUE_ORDER) | Curtailment Queue Order | 1{NUMERIC}3 | Queue number | Positive number | Priority in which curtailment of service occurs. |
| CURTAILMENT_REASON (alias CURT_REASON) | Curtailment Reasons | 1{ALPHANUMERIC}25 | Text | Free-form text | Reason for curtailment of service. |
| CUSTOMER | Name of Requester and Customer Identifier (authorization password or identifier code, which at least is non-displayable and should be encrypted) | 1{ALPHANUMERIC}25 | Name | Unique value | Any eligible company (or its designated agent) that is authorized to view OASIS information, to execute a service agreement, and/or to receive transmission service. |
| CUSTOMER_CODE (alias CUST_CODE) | Transmission Customer Code | 1{NUMERIC}12 | DUNS number | Unique number | Unique DUNS number for each Customer (if available) |
| CUSTOMER_PAYMENT (alias CUST_PAYMENT) | Customer Payment | 1{ALPHANUMERIC}20 | Text | Free-form text | Customer payment. |
| CUSTOMER_REQUIREMENT (alias CUST_REQUIREMENTS) | Customer Requirements | 1{ALPHANUMERIC}20 | Text | Free-form text | Customer requirements. |
| DATA_RECORDS | Data included in a file | 1{APLPHANUMERIC} unlimited | Text or numbers | Free-form text or numbers | Data included in a file |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| DATETIMETZ (alias DTZ) | Date and Time Stamp | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+tz | Time | Valid date and time | Date and Time Stamp of the information being presented to the Customer |
| DAY | Day | Query Variable | Numeric | The day is represented as an integer from 1 to 31. For some months, the maximum value may be less. | This specifies the day of the month from which the data is requested. DAY refers to a single day, while DAY-START and DAY-END refer to a range of days. |
| DAY-END, (alias EDAY) | Last day to show data | Query Variable | Numeric | The day is represented as an integer from 1 to 31. For some months, the maximum value may be less. | This specifies the day of the month from which the data is requested. DAY refers to a single day, while DAY-START and DAY-END refer to a range of days. |
| DAY-START, (alias SDAY) | First day to show data | Query Variable | Numeric | The day is represented as an integer from 1 to 31. For some months, the maximum value may be less. | This specifies the day of the month from which the data is requested. DAY refers to a single day, while DAY-START and DAY-END refer to a range of days. |
| dd | Days in date and time fields | 2{NUMERIC}2 | Time | Range of 0 to 31, validated against month | A numeric value represent the day in the month |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| DEAL_REFERENCE (alias DEALREF) | Deal Reference | 1{ALPHANUMERIC}12 | Text | Unique value | 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 Customer uses the DEAL_REFERENCE to uniquely identify a combination of requests relating to a particular deal. |
| DISCOUNT | Discount | 0{ALPHANUMERIC}20 | Text | Free-form text | A description of any discount that applies. |
| DISCOUNT_PERCENT | Discount Percentage | 0{NUMERIC}6 | Percentage | Between 0 and 100 | The percentage of any discount that applies. |
| DTMMTZ | Date and Time to minutes with time zone | 14 alphanumeric characters: yyyy+mo+dd+hh+mm+tz | Time | Valid date and time | Date and time to the minute resolution and time zone. This specifies the time when the Capacity is available. |
| DTTZTS_EXPIRES | Date and time of expiration | 14 alphanumeric characters: yyyy+mo+dd+hh+mm+tz | Time | Valid date and time | Represents when a Want Ad message expires (i.e., is removed from data storage).Date, time, and time zone. Military time is used. Example: 19960212145530PS |
| DTTZTS_POSTED | Date and time posted, oriented to computers | 14 alphanumeric characters: yyyy+mo+dd+hh+mm+tz | Time | Valid date and time | Represents when a Want Ad message was posted. Date, time, and time zone oriented to computer interpretation. Military time is used. Example: 19960212145530PS |
| DTTZTS_QUEUED | Date and time entered into queue | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+tz | Time | Valid date and time | Represents when a Customer Request or a Want Ad message was queued for processing. Date, time, and time zone oriented to computer interpretation. Military time is used. Example: 19960212145530PS |
| E-MAIL (aliad EMAIL) | E-mail address | 5{ALPHANUMERIC}60 | E-mail address | Valid network reference | E-MAIL address |
| ENDDATETZ (alias ENDDTZ) | Ending Date and Time | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+tz | Time | Valid date and time | Ending Date, time, and time zone. Military time is used. Example: 19960212145530PS |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| FAX | Fax number | 10{NUMERIC}10 | Telephone number | Area code and telephone number | A telephone number for a fax machine. |
| hh | Hour in date and time fields | 2{NUMERIC}2 | Time | Range of 0 to 25 | A numeric value represent the hour of the day with a range of 0 to 25. The value of 25 is necessary for observance of daylight savings time. |
| HOUR | Hour | Query Variable | Numeric | An integer value between 1 and 25 representing "hour-ending" time. Hour 1 refers to the time between 00:01 to 01:00. Hour 25 refers to the extra hour added when daylight savings time changes in the fall. Default is all hours of the day. | This specifies the hour of the day or range of hours in the day for each hour data is requested. HOUR refers to a single hour, while HOUR-START and HOUR-END refer to a range of hours |
| HOUR-END, (alias EHR) | Hour | Query Variable | Numeric | An integer value between 1 and 25 representing "hour-ending" time. | This specifies the hour of the day or range of hours in the day for each hour data is requested. HOUR refers to a single hour, while HOUR-START and HOUR-END refer to a range of hours |
| HOUR-START, (alias SHR) | Hour | Query Variable | Numeric | An integer value between 1 and 25 representing "hour-ending" time. | This specifies the hour of the day or range of hours in the day for each hour data is requested. HOUR refers to a single hour, while HOUR-START and HOUR-END refer to a range of hours |
| INCREASE_OBLIGATION (alias INC_OBLIG) | Increase Obligation | 1{ALPHANUMERIC}12 | Text | Free-form text | Increase obligation. |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| INTERFACE_TYPE (alias IT) | Internal or External interface to an area | 1{ALPHA}1 | Text | E = external<br>I = internal<br>O = other | The value is either the character 'I' for Internal (Intra-control area-to-control area) or the character 'E' for External (Inter-control area-to-control area) or the character 'O' for Other. |
| KEYWORD | Keyword | 0{ALPANUMERIC}16 | Text | Free-form text | A descriptive word for identification. Typically such that it would be specified for search for information. |
| mm | Minutes in date and time fields | 2{NUMERIC}2 | Time | Range of 0 to 59 | A numeric value represent the minutes of the hour |
| mo | Month in date and time fields | 2{NUMERIC}2 | Time | Range of 1 to 12 | A numeric value represent the month of the year |
| MONTH, (alias MON) | Month | Query Variable | Numeric | Month is specified as a numeric value between 1 and 12. | This specifies which month of data is requested. Normally, the date is further qualified by day (except when monthly data is requested. MONTH refers to a single month. MONTH-START and MONTH-END specify a range |
| MONTH-END, (alias EMON) | Last month to show data | Query Variable | Numeric | Month is specified as a numeric value between 1 and 12. | This specifies which month of data is requested. Normally, the date is further qualified by day (except when monthly data is requested. MONTH refers to a single month. MONTH-START and MONTH-END specify a range |
| MONTH-START, (alias SMON) | First month to show data | Query Variable | Numeric | Month is specified as a numeric value between 1 and 12. | This specifies which month of data is requested. Normally, the date is further qualified by day (except when monthly data is requested. MONTH refers to a single month. MONTH-START and MONTH-END specify a range |
| NO_OF_ROWS | Number of rows of data in a file | 1{NUMERIC}4 | Number | Range of 1 to 9999 | Number of rows of data in a file |
| NO_PREV_ASSIGN_REF (alias NO_PAREF) | Number of previous assignment references | 1{NUMERIC}4 | Number | Range of 1 to 9999 | The number of previous sales of transmission services that have been aggregated to form a new sale of a portion of those services. |
| OUTPUT_FORMAT (alias FMT) | Output Format | 4{ALPHANUMERIC}4 | Text | Values of: HTML, DATA, | Defines the format of the response. The information returned is used for either a Graphical User Interface (GUI) or as a File processed by a computer. |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| PATH_NAME (alias PATH) | Path name | 5{ALPHANUMERIC}50 | Name | 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 fields, with each code separated by a "/": REGION_CODE - 2 chars, unique to OASIS System OWNER_CODE - 4 chars, unique within Region PATH_CODE - 12 chars, unique for Owner 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 |
| PHONE | Phone number | 10{NUMERIC}10 | Telephone number | Area code and telephone number | A telephone number. |
| POINT_OF_DELIVERY (alias POD) | Point of Delivery | 1{ALPHANUMERIC}12 | Name | Unique value | Point of Delivery is the point 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 in the area. For an external path, this may be an area-to-area interface. |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| POINT_OF_RECEIPT (alias POR) | Point of Receipt | 1{ALPHANUMERIC}12 | Name | Unique value | Point of Receipt is the point 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 in the area. For an external path, this may be an area-to-area interface. |
| PREV_ASSIGN_REF | Reference for Previous Assignment of ATC Rights | 1{ALPHANUMERIC}12 | Text | Unique value | A reference to a previous reassignment of rights, uniquely assigned by a Provider. |
| PRICE | Price | 1{NUMERIC}5 + '.' + 2{NUMERIC}2 | Dollars and cents | Positive number with 2 decimals | The offering price of the Transmission Service in dollars |
| PRICE_UNITS | Units for PRICE | 5(ALPHA)6 | Name | MW-HR, MW-DAY, KW-WK, KW-MO, KW-YR | The units used for PRICE. MW-Megawatts, KW-Kilowatts, HR-Hour, WK-Week, YR-Year |
| PRIMARY_ PROVIDER (alias PPROVIDER) | Primary Provider | 1{ALPHANUMERIC}25 | Name | Unique value | Name of an Owner of transmission services |
| PROVIDER | Primary or Secondary Provider | 1{ALPHANUMERIC}25 | Name | Unique value | Name of PRIMARY_PROVIDER or SECONDARY_PROVIDER |
| PROVIDER_CODE | Provider DUNS number | 1{NUMERIC}12 | DUNS number | Valid DUNS number | Unique code for each Primary and Secondary Provider. |
| PROVIDER_OPTIONS | Provider Options | 1{ALPHANUMERIC}50 | Text | Free-form text | Represents options offered by the Provider. |
| RATE_INFORMATION | Rate information related to transmission services | 1{ALPHANUMERIC}50 | Text | Free-form text | Rate information related to transmission services |
| REASSIGNED_BEGDATETZ | Beginning Date and Time | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+ tz | Time | Valid date and time | Date and time of the beginning of the transmission service that is reassigned to another customer. |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| REASSIGNED_CAPACITY (alias REASIGN_CAP) | Transmission Capacity or Transfer Capability that is being reassigned to another customer | 1{NUMERIC}12 | MW | Positive number, cannot exceed previous purchase | Transfer capability is the measure of the ability of the interconnected electric systems to reliably 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, power pool, control area, subregion, or NERC region, or portion thereof. |
| REASSIGNED_ENDDATEZ | End Date and Time | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+tz | Time | Valid date and time | Date and time of the end of the transmission service that is reassigned to another customer. |
| REASSIGNED_STATUS | Status | 4{ALPHABETIC}25 | Text | Valid field | Valid entries include: Posted, Received, Accepted by Seller, Accepted by Customer, Withdrawn, Rejected |
| RECALLABLE_MINIMUM_NOTICE (alias REC_MIN_NOTICE) | Recallable Minimum Notice | 1{ALPHANUMERIC}16 | Text | Free-form text | Description by the Provider regarding time to notify that a service will be recalled. |
| RECALLABLE_QUEUE_ORDER (alias REC_QUE_ORDER) | Recallable Queue Order | 1{ALPHANUMERIC}16 | Text | Free-form text | Description by the Provider of the relative position of a services request to others of a similar type. |
| RECALLABLE_REASON (alias REC_REASON) | Recallable Reasons | 1{ALPHANUMERIC}16 | Text | Free-form text | Description by the Provider regarding conditions for services being recalled. |
| RECALLABLE_RESUMPTION (alias REC_RESUMP) | Recallable Resumption | 1{ALPHANUMERIC}16 | Text | Free-form text | Description by the Provider regarding resumption of services. |
| REGION | Name of Region | 1{ALPHANUMERIC}12 | Text | Unique within OASIS System | Unique name for each area within the OASIS |
| REGION_CODE | Code for Region | 1{ALPHANUMERIC}2 | Code | Unique within OASIS System | Unique<br>Defined for NERC regions, with the following defined:<br>E - ECAR<br>I - MAIN<br>S - SERC<br>T - ERCOT<br>A - MAPP<br>P - SPP<br>M - MAAC<br>N - NPCC<br>W - WSCC |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| RELATIVE_DAY, (alias RDAY) | Day relative to today | Query Variable | Numeric | Number greater than or equal to zero | This represents a value for DAY which is relative to TODAY. TODAY is represented as relative day 0. Days in the future are represented as positive values and days is the past are represented as negative values. TOMORROW is always relative day 1, while YESTERDAY is always relative day -1. This variable is used when only a single day needs to be specified. For a range of days, use the REATIVE_DAY_START and RELATIVE_DAY_END. If RELATIVE_DAY is specified, then DAY, DAY_START, and DAY_END, ELATIVE_DAY_START and RELATIVE_DAY_END must not be specified. |
| RELATIVE_DAY_END, (alias ERDAY) | Day relative to today for end | Query Variable | Numeric | Number greater than or equal to zero | See above |
| RELATIVE_DAY_START, (alias SRDAY) | Day relative to today for start | Query Variable | Numeric | Number greater than or equal to zero | See above |
| REQUEST_REF | Customer Request Identifier | 1{ALPHANUMERIC}12 | Text | Unique value | A reference uniquely assigned by a Customer to a request for service from a Provider. |
| REQUEST_STATUS | Status of a response to a request | 1{NUMERIC}3+ALPHA | Status | Error number+!Successful/Unsuccessful | Example: 200 !Successful |
| SELLER_COMPANY (alias SECONDARY_PROVIDER_COMPANY, S_COMPANY) | Company of a Secondary Provider | 1{ALPHANUMERIC}25 | Name | Valid name of a Customer | The name of a Customer who has services for resell. |
| SELLER_EMAIL (alias (S_EMAIL) | Secondary Provider E-mail address | 5{ALPHANUMERIC}60 | E-mail address | Valid network reference | E-Mail address |
| SELLER_FAX (alias SECONDARY_PROVIDER_FAX), S_FAX | Secondary Provider Fax | 10{NUMERIC}10 | Telephone number | Area code and telephone number | The telephone number for SECONDARY_PROVIDER fax machine. |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| SELLER_NAME (alias SECONDARY_PROVIDER_NAME, S_NAME) | Secondary Provider Name | 1{ALPHANUMERIC}12 | Name | Valid name | The name of an individual working for a Secondary Provider Company. |
| SELLER_PHONE (alias SECONDARY_PROVIDER_PHONE, S_PHONE) | Secondary Provider Phone | Numeric 10{NUMERIC}10 | Telephone | Area code and telephone number | The telephone number for SECONDARY_PROVIDER_NAME |
| SERVICE_CATEGORY (alias SERVICE_CAT) | Service Category | 1{ALPHANUMERIC}20 | Text | Free-form text | A reference to the various service categories defined by the Provider. |
| SERVICE_DESCRIPTION | Description of Services | 1{ALPHANUMERIC} Unlimited | Text | Free-form text | Information text. |
| SERVICE_TIMING_MAXIMUM_DURATION (alias SVC_MAX_DUR) | Service Timing Maximum Duration | 1{NUMERIC}10 | Hours | Positive number | Maximum amount of time for service. |
| SERVICE_TIMING_MINIMUM_DURATION (alias SVC_MIN_DUR) | Service Timing Minimum Duration | 1{NUMERIC}10 | Hours | Positive number | Minimum amount of time for service. |
| SERVICE_TYPE | Service Type | 1{ALPHANUMERIC}14 | Text | Free-form text | A reference to the various service types defined by the Provider. This provides for a sub-category for SERVICE_CATEGORY. |
| SINK | Sink | 0{ALPHANUMERIC}14 | Name | Valid area name | The area in which the SINK is located. |
| SOURCE | Source | 0{ALPHANUMERIC}14 | Name | Valid area name | The area in which the SOURCE is located. |
| ss | Seconds in date and time fields | 2{NUMERIC}2 | Time | Range of 0 to 59 | A numeric value represent the seconds in the minute |
| STATUS | Status = Pending, Posted, Received, Accepted by Customer, Accepted by Seller, Confirmed for Scheduling, None, Withdrawn, or Rejected | 4{ALPHABETIC}25 | Text | Valid field | Valid entries include:<br>POSTED<br>PENDING<br>RECEIVED<br>ACCEPTED BY CUSTOMER<br>ACCEPTED BY SELLER<br>CONFIRMED<br>WITHDRAWN<br>REJECTED<br>NONE |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| SUBJECT | Subject | 1{ALPANUMERIC}64 | Text | Free-form text | A short descriptive phrase for summarizing information text. |
| TARIFF_REFERENCE | Reference to tariff | 1{ALPANUMERIC}20 | Text | Valid text | Valid reference to a tariff |
| TEMPLATE | Name of the Template: | Query Variable | Variable | Name of Template | This specifies which Template from which the data is returned. The following list are the names and valid values of the Templates. |
| TEMPLATE01 | | Query Parameter | Name | sumpathhouratc | Summary Path Hourly ATC |
| TEMPLATE02 | | Query Parameter | Name | sumpatdayatc | Summary Path Daily ATC |
| TEMPLATE03 | | Query Parameter | Name | sumpathmonthatc | Summary Path Monthly ATC |
| TEMPLATE04 | | Query Parameter | Name | sumpathyearatc | Summary Path Yearly ATC (optional) |
| TEMPLATE05 | | Query Parameter | Name | houratc | Hourly Capacity Available for Purchase |
| TEMPLATE06 | | Query Parameter | Name | dayatc | Daily Capacity Available for Purchase |
| TEMPLATE07 | | Query Parameter | Name | monthatc | Monthly Capacity Available for Purchase |
| TEMPLATE08 | | Query Parameter | Name | yearatc | Yearly Capacity Available for Purchase (optional) |
| TEMPLATE09 | | Query Parameter | Name | scheduledatc | Hourly Schedule |
| TEMPLATE10 | | Query Parameter | Name | secondatcpost | Secondary Provider Capacity Posting (Input) |
| TEMPLATE11 | | Query Parameter | Name | secondatcremove | Secondary Provider (Reseller ) Capacity Remove (Input) |
| TEMPLATE12 | | Query Parameter | Name | servavail | Ancillary Services Available for Purchase |
| TEMPLATE13 | | Query Parameter | Name | servtrans | Services Transmission |
| TEMPLATE14 | | Query Parameter | Name | atcrequest | Customer Capacity Purchase Request (Input) |
| TEMPLATE15 | | Query Parameter | Name | atcacknowledge | TSIP Posting of "Acknowledge Receipt" of Request |
| TEMPLATE16 | | Query Parameter | Name | atcstatus | Provider Capacity Purchase Status Response to Customer Request |
| TEMPLATE17 | | Query Parameter | Name | atcaccept | Customer's Purchase Acknowledge Acceptance (Input) |
| TEMPLATE18 | | Query Parameter | Name | sellerack | Seller Form to Acknowledge Capacity Purchase Status (Input) |
| TEMPLATE19 | | Query Parameter | Name | sellerreassign | Seller Form to Reassign Service Rights to Another Customer (Input) |
| TEMPLATE20 | | Query Parameter | Name | wantadpost | Provider/Customer Want-Ad Posting Request (Input) |
| TEMPLATE21 | | Query Parameter | Name | wantadlisting | TSIP Posting of Want-Ad Response |
| TERMS_AND_CONDITIONS (alias TERM_COND) | Terms and Conditions | 0{ALPHANUMERIC} Unlimited | Text | Free-form text | Short descriptions of terms and conditions. |

| Data Dictionary Element Name | Description | Field Format : minimum characters {type of ASCII} maximum characters | Units or Type | Restricted Values | Definition of Data Element |
|---|---|---|---|---|---|
| TIME_OF_LAST_UPDATE | Date and Time | 16 alphanumeric characters: yyyy+mo+dd+hh+mm+ss+ tz | Time | Valid date and time | Date and time data was last updated on OASIS Node Example: 19960212145530PS |
| TOTAL_TRANSMISSION_ CAPACITY (alias TTC) | Total Transmission Capacity | 1{NUMERIC}12 | Megawatt hours | Positive number | Total capacity of a Path |
| tz | Time zone in date and time fields | 2{ALPHA}2 | Time | Valid text | An alphanumeric value represent the time zone, which can take the following values: ES, ED, CS, CD, MS, MD, PS, or PD |
| UNITS | Units | 1{ALPANUMERIC}12 | Units | Valid units | Description of type of entity being referenced |
| VERSION (alias VER) | Version | 1{REAL NUMBER}6 | Number | Range of 1.0 to 9999.9 | Specifies which version of the OASIS Requirements specification to use when interpreting the request |
| WANT_AD | Want-Ad message | 1{ALPHANUMERIC} Unlimited | Text | Free-form text | Information text. |
| YEAR | Year | 4{NUMERIC}4 | Time | Range of 1 to 12 | A numeric value represent the year |
| YEAR-END, (alias EYR) | Last year to show data for | Query Variable | Numeric | Valid year | YEAR-START and YEAR-END specify a range of years. |
| YEAR-START, ( alias SYR) | First year to show data for | Query Variable | Numeric | Valid year | YEAR-START and YEAR-END specify a range of years. |
| yyyy | Year in date and time fields | 4{NUMERIC}4 | Time | Range of 1 to 12 | A numeric value represent the year |

[NOTE: This appendix will not appear in the Code of Federal Regulations.]

# Appendix B
# Request (Query) Variables

## April 24, 1996
## Version 1.0

# Use of Query Variables

## PHASE 1 OASIS Requirements, Template-specific Query Variables

Each query of the OASIS node requests data from a specific OASIS Template in the Information Model. The user specifies which OASIS Template from which to obtain data based on a "template" query variable. The query variables allowed in a request depends upon which "template" is being requested.

For each template a description of the data request is documented.
Each query variable allowed for the template is listed afterwards. At the end of each template, there may be "Discussion Issues" related to the template.

# Use of Query Variables

## Summary Path Hourly ATC Template

This request returns the ATC and for transmission products (e.g. firm and non-firm transmission) by each provider of a given path for each hour on a given day.

***Variables***

TEMPLATE=sumpathhouratc

OUTPUT_FORMAT
VERSION

PATH-NAME
POR
POD

| | |
|---|---|
| YEAR | (or YEAR-START and YEAR-END) |
| MONTH | (or MONTH-START and MONTH-END) |
| DAY | (or DAY-START and DAY-END) |
| RELDAY | (or RELDAY-START and RELDAY-END) |
| HOUR | (or HOUR-START and HOUR-END) |
| TZ | |

# Use of Query Variables

## Summary Path Daily ATC Template

Response contains on and off-peak firm and non-firm ATC and price by each provider of a given path for a given range of days.

***Variables***

TEMPLATE=sumpathdayatc

OUTPUT_FORMAT
VERSION

PATH-NAME
POR
POD

YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)
DAY (or DAY-START and DAY-END)
RELDAY (or RELDAY-START and RELDAY-END)

# Use of Query Variables

## Summary Path Monthly ATC

Response contains on and off-peak firm and non-firm ATC and price by each provider for a given path for a given range of months.

***Variables***

TEMPLATE=sumpathmonthatc

OUTPUT_FORMAT
VERSION

PATH-NAME
POR
POD

YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)

# Use of Query Variables

## Summary Path Yearly ATC Template

Response contains on and off-peak firm and non-firm ATC and price by each provider for a given path for a given range of years.

***Variables***

TEMPLATE=sumpathyearatc

OUTPUT_FORMAT
VERSION

PATH-1
POR-1
POD-1

YEAR (or YEAR-START and YEAR-END)

# Use of Query Variables

## Hourly Capacity Available for Purchase Template

Response contains firm and non-firm ATC and price for a given provider for one or more paths for each hour on a given day.

**Variables**

TEMPLATE=houratc

OUTPUT_FORMAT
VERSION

| | |
|---|---|
| PROVIDER | must be specified |
| PATH-NAME | (PATH or PATH1 or PATH2, etc ) |
| POR | (or POR1 or POR2, etc ) |
| POD | (or POD1 or POD2, etc ) |
| YEAR | (or YEAR-START and YEAR-END) |
| MONTH | (or MONTH-START and MONTH-END) |
| DAY | (or DAY-START and DAY-END) |
| RELDAY | (or RELDAY-START and RELDAY-END) |
| HOUR | (or HOUR-START and HOUR-END) |
| TZ | |

# Use of Query Variables

## Daily Capacity Available for Purchase Template

Response contains on and off-peak firm and non-firm ATC and price for a given provider for one or more paths for a given range of days.

***Variables***

TEMPLATE=dayatc

OUTPUT_FORMAT
VERSION

| | |
|---|---|
| PROVIDER | must be specified |
| PATH-NAME | (PATH or PATH1 or PATH2, etc ) |
| POR | (or POR1 or POR2, etc ) |
| POD | (or POD1 or POD2, etc ) |
| YEAR | (or YEAR-START and YEAR-END) |
| MONTH | (or MONTH-START and MONTH-END) |
| DAY | (or DAY-START and DAY-END) |
| RELDAY | (or RELDAY-START and RELDAY-END) |

# Use of Query Variables

## Monthly Capacity Available for Purchase Template

Response contains on and off-peak firm and non-firm ATC and price for a given provider for one or more paths for a given range of months.

***Variables***

TEMPLATE=monthatc

OUTPUT_FORMAT
VERSION

| | |
|---|---|
| PROVIDER | must be specified |
| PATH-NAME | (PATH or PATH1 or PATH2, etc ) |
| POR | (or POR1 or POR2, etc ) |
| POD | (or POD1 or POD2, etc ) |
| YEAR | (or YEAR-START and YEAR-END) |
| MONTH | (or MONTH-START and MONTH-END) |

# Use of Query Variables

## Yearly Capacity Available for Purchase Template

Response contains on and off-peak firm and non-firm ATC and price for a given provider for one or more paths for a given range of months.

***Variables***

TEMPLATE=yearatc

OUTPUT_FORMAT
VERSION

| | |
|---|---|
| PROVIDER | must be specified |
| PATH-NAME | (PATH or PATH1 or PATH2, etc ) |
| POR | (or POR1 or POR2, etc ) |
| POD | (or POD1 or POD2, etc ) |
| YEAR | (or YEAR-START and YEAR-END) |

# Use of Query Variables

## Hourly Schedule Template

Response contains firm and non-firm ATC schedule by each customer for one or more paths for each hour in a given day. No price information is given. Customer names "might" not be visible.

***Variables***

TEMPLATE=scheduledatc

OUTPUT_FORMAT
VERSION

| | |
|---|---|
| PROVIDER | must be specified |
| PATH-NAME | (PATH or PATH1 or PATH2, etc ) |
| POR | (or POR1 or POR2, etc ) |
| POD | (or POD1 or POD2, etc ) |
| YEAR | (or YEAR-START and YEAR-END) |
| MONTH | (or MONTH-START and MONTH-END) |
| DAY | (or DAY-START and DAY-END) |
| RELDAY | (or RELDAY-START and RELDAY-END) |
| HOUR | (or HOUR-START and HOUR-END) |
| TZ | |

# Use of Query Variables

## Secondary Provider Capacity Posting (Input)

Input contains information to post ATC for sale by a secondary provider.

***Variables***

TEMPLATE=secondatcpost

VERSION

YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)
DAY (or DAY-START and DAY-END)
RELDAY (or RELDAY-START and RELDAY-END)
HOUR (or HOUR-START and HOUR-END)
TZ

POR
POD
PATH
PROVIDER
CAPACITY
CAPACITY_TYPE
INTERFACE_TYPE
REQUEST_REF
PRICE
UNITS
TERMS_AND_CONDITIONS
COMMENTS
SELLER_NAME
SELLER_COMPANY
SELLER_PHONE
SELLER_FAX
SELLER_EMAIL
PREV_ASSIGN_REF
REASSIGNED_CAPACITY
BEGDATETZ
ENDDATETZ
COMMENTS

# Use of Query Variables

## Secondary Provider (Reseller) Capacity Remove (Input)

Input contains information about a previously posted ATC for sale by a secondary provider.

***Variables***

TEMPLATE=secondatcremove

VERSION

YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)
DAY (or DAY-START and DAY-END)
RELDAY (or RELDAY-START and RELDAY-END)
HOUR (or HOUR-START and HOUR-END)
TZ

PROVIDER
POR
POD
PATH
CAPACITY
CAPACITY_TYPE
INTERFACE_TYPE
REQUEST_REF
PRICE
UNITS
TERMS_AND_CONDITIONS
COMMENTS
SELLER_NAME
SELLER_COMPANY
SELLER_PHONE
SELLER_FAX
SELLER_EMAIL

# Use of Query Variables

## Ancillary Services Available for Purchase

Response contains a list of ancillary services provided by a given Service Provider.

***Variables***

TEMPLATE=servavail

OUTPUT_FORMAT
VERSION

PROVIDER

# Use of Query Variables

## Services Transmission

Response contains Transmission services tariff information about each service by the given provider.

***Variables***

TEMPLATE=servtrans

OUTPUT_FORMAT
VERSION

PROVIDER

# Use of Query Variables

## Customer Capacity Purchase Request (Input)

Input contains information necessary to purchase transmission capacity of a specific type (firm or non-firm) at a specific time.

***Variables***

TEMPLATE=atcrequest

OUTPUT_FORMAT
VERSION

POR
POD
PATH
CAPACITY
CAPACITY_TYPE
YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)
DAY (or DAY-START and DAY-END)
RELDAY (or RELDAY-START and RELDAY-END)
HOUR (or HOUR-START and HOUR-END)
TZ
PRICE
CUSTOMER
DISCOUNT
DEAL_REF
ANCILLARY_SERVICES_REQUIREMENTS
INTERFACE_TYPE
COMMENTS

# Use of Query Variables

## TSIP Posting of "Acknowledge Receipt" of Request

Response contains the customer capacity purchase information.

***Variables***

TEMPLATE=atcacknowledge

OUTPUT_FORMAT
VERSION

# Use of Query Variables

## Provider Capacity Purchase Status Response to Customer Request

Response contains the STATUS and QUEUE INFORMATION for a given customer capacity Purchase Request.

***Variables***

TEMPLATE=atcstatus

OUTPUT_FORMAT
VERSION

POR
POD
PATH
CAPACITY
CAPACITY_TYPE
YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)
DAY (or DAY-START and DAY-END)
RELDAY (or RELDAY-START and RELDAY-END)
HOUR (or HOUR-START and HOUR-END)
TZ
PRICE
CUSTOMER
DISCOUNT
DEAL_REF
ANCILLARY_SERVICES_REQUIREMENTS
INTERFACE_TYPE
COMMENTS

# Use of Query Variables

## Customer's Purchase Acknowledge Acceptance (Input)

Input contains the Provider Capacity Purchase Status for a given customer Capacity Purchase Request and an indication of acceptance or rejection of the purchase.

***Variables***

TEMPLATE=atcaccept

OUTPUT_FORMAT
VERSION

STATUS (must be either "Accepted" or "Rejected")

POR
POD
PATH
CAPACITY
CAPACITY_TYPE
YEAR (or YEAR-START and YEAR-END)
MONTH (or MONTH-START and MONTH-END)
DAY (or DAY-START and DAY-END)
RELDAY (or RELDAY-START and RELDAY-END)
HOUR (or HOUR-START and HOUR-END)
TZ
PRICE
CUSTOMER
DISCOUNT
DEAL_REF
ANCILLARY_SERVICES_REQUIREMENTS
INTERFACE_TYPE
COMMENTS

# Use of Query Variables

## Seller Form to Acknowledge Capacity Purchase Status (Input)

Input contains the Seller's status, queue, and reference number of a Customer Purchase Request.

***Variables***

TEMPLATE=sellerack

VERSION
STATUS
DTTZTS_QUEUED
REQUEST_REF
POR
POD
PATH
PROVIDER
SELLER_NAME
CAPACITY
CAPACITY_TYPE
CUSTOMER
DISCOUNT
DEAL_REFERENCE
SERVICE_DESCRIPTION
ASSIGNMENT_REF
INTERFACE_TYPE
COMMENTS
PREV_ASSIGN_REF The following may contain multiple values
PREV_CAPACITY
PREV_STATUS
PREV_BEGDATETZ
PREV_ENDDATETZ
PREV_COMMENTS

# Use of Query Variables

## Seller Form to Reassign Service Rights to Another Customer (Input)

Input contains the Seller's status, queue, and reference number of a Customer Purchase Request.

***Variables***

TEMPLATE=sellerreassign

VERSION
POR
POD
PATH
PROVIDER
SELLER_NAME
CAPACITY
CAPACITY_TYPE
BEGDATETZ
ENDDATETZ
REQUEST_REF
CUSTOMER
DISCOUNT
DEAL_REFERENCE
SERVICE_DESCRIPTION
ASSIGNMENT_REF
INTERFACE_TYPE
DTZZTS_QUEUED
COMMENTS

PREV_ASSIGN_REF The following may contain multiple values
PREV_CAPACITY
PREV_STATUS
PREV_BEGDATETZ
PREV_ENDDATETZ
PREV_COMMENTS

# Use of Query Variables

## Provider/Customer Want-Ad Posting Request (Input)

Input contains the want-ad information to post on the OASIS.

***Variables***

TEMPLATE=wantadpost

VERSION

| | |
|---|---|
| YEAR | Date when message expires |
| MONTH | |
| DAY | |
| HOUR | |

| | |
|---|---|
| CUSTOMER | (or PROVIDER) |
| CONTACT | must be specified |
| PHONE | must be specified (if FAX or E-MAIL is blank) |
| FAX | must be specified (if PHONE or E-MAIL is blank) |
| E-MAIL | must be specified (if PHONE or FAX is blank) |
| KEYWORD | |
| SUBJECT | must be specified |
| WANT-AD | must be specified |

# Use of Query Variables

## TSIP Posting of Want-Ad Response

Response contains the want-ad information on the OASIS.

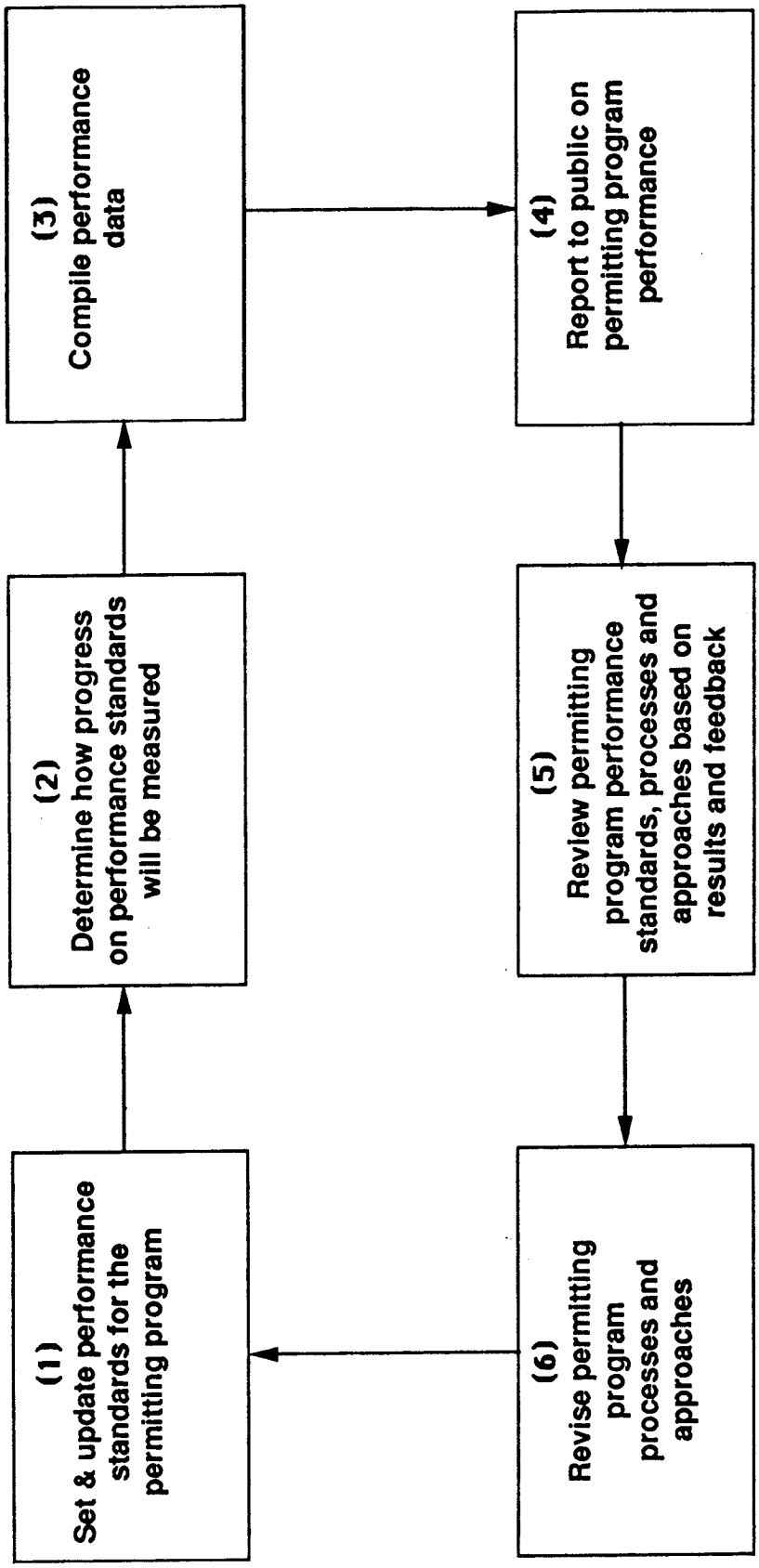
***Variables***

TEMPLATE=wantadlisting

OUTPUT_FORMAT
VERSION

SUBJECT [optional]
WANT-AD [optional]

**Figure II:**
**Continuous Performance Improvement System for Permitting Programs**

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