EXECUTIVE SUMMARY

This document establishes the framework for the electronic dissemination and communication of information between parties in the North American Wholesale Gas marketplace. Specifically, Tthe Wholesale Gas Quadrant of the North American Energy Standards Board has standardized four methods of communications that can be implemented by market participants. The four methods are:

1. 1, EDI File Transfer (EDI/EDM) -– The transfer of EDI files, as defined by the ANSI-based NAESB WGQ file formats standards, transferred via the Internet viausing the NAESB Internet Electronic Transfer (Internet ET) mechanism.

2. 2. Flat File Transfer -– The transfer of "flat files", as defined by the NAESB WGQ file formats standards, transferred via the Internet viausing the NAESB Internet ET mechanism (Batch FF/EDM) or interactive Internet browser (Interactive FF/EDM).

3. 3. Informational Postings Web Sites - Internet web sites that provide open access to various documents and information posted by Transportation Service Providers.

4. 4. Customer Activities Web Sites - Internet web sites that provide secure access to various documents, information and transactions between Transportation Service Providers and Service Requesters.

Whole Gas Quadrant (NAESB WGQ) has developed standards for accomplishing electronic commerce over the Internet using ANSI ASC X12 (EDI/EDM), flat files (FF/EDM), and Customer Activities Web site presentations (EBB/EDM). Technologies necessary for all Internet Electronic Delivery Mechanisms (EDM) to rapidly, reliably and safely move data across the Internet have been determined. For EDI and flat files, once received from a trading partner via the Internet, the data is decrypted and moved through a translator or other appropriate processor for NAESB WGQ standard file formats and forwarded to a back-end processing application. However, file format translation and back-end processing are outside the Internet EDM scope. For NAESB WGQ Customer Activities and Informational Posting Web sites, requirements for data presentation, navigation and session security have been determined.

For each of these four areas, tThis document provides is a high-level guide to development, implementation, and testing.ing various technologies necessary to communicate transactions using the standard protocols. As such, tThis guide is not, however, intended to be a comprehensive, in-depth manual. Wherever possible, this guide points to more in-depth material, including related NAESB standards or external references, to provide additional details.. The Reference section provides locations on the Internet to obtain more information as well as books and periodicals that have been recommended.

The NAESB Internet ET is an electronic transport mechanism that utilizes “open” technologies to enable the rapid, reliable, and secure transport of transactions between trading partners across the Internet.

The open standard technologies selected by NAESB WGQ and the Internet ET are designed to provide flexibility and scalability. The business benefits gained from adherence to NAESB standards include the ability to transact electronically with industries affiliated with the gas industry (e.g., electric utilities, banks, suppliers, retail customers), and encouraging third party development

of applications for use in the wholesale gas industry.

Open Standards

There are several major topic areas related to NAESB Internet Electronic Transport (Internet ET) Internet Electronic Delivery Mechanism covered in this manual. When looking to implement Internet EDM, one should become familiar with the following components of an Internet ETthe implementation:

- Communications Protocols
- Sending of Transactions
- Receipt of Transactions
- Security
- HTTP Transport for Secure EDI (a.k.a. IETF EDIINT AS2)

The "open" standard technologies selected by NAESB WGQ to address these areas are designed to provide flexibility and scalability. There are business benefits gained from adherence to "HTTP Transport for Secure EDI" such as:

- Allows potential to more readily, electronically trade with others (e.g., electric utilities, banks, suppliers, retail customers)
- Makes it more likely that packages can be purchased to replace custom written apps currently in place to support NAESB WGQ EDM
- Strengthens the surety of receipt and error notification

HTTP Transport for Secure EDI (AS2) is an emerging standard, largely based on the original NAESB WGQ EDM, that is being developed by the Internet Engineering Task Force, the Internet standards body. Adherence with a formal, international Internet standard, such as AS2 ensures that the specification will not change without due process and any changes that do occur will be the result of a broad consensus. Individual companies and entire industries are free to use as much or as little of AS2 as they see fit, providing the maximum flexibility to meet business needs. The specific implementation of the standards is dependent upon what fits the trading partner's needs and available resources. A brief delineation of these components is covered at a high level in the Business Process and Practices (Major functions of Internet EDM covered by the Standards) section and in more detail in later sections.

Same Application Implementation For All Trading Partners

The basic assumption in designing and implementing the Internet EDM application is that it is not platform-specific. What is meant by this is that an organization's Internet EDM application serves the role of communicating with all trading partners in the gas industry no matter what hardware, operating system and programming languages they use at their site. For this reason, testing with other trading partners with a variety of platforms is very important in ensuring that your EDM application is compatible with a range of platforms used by various trading partners.

Testing With Gas Industry Internet EDM Participants

To provide a way for parties interested in Internet EDM testing to initiate testing relationships, the NAESB home page will have a list of organizations willing to act as testing partners and their respective test coordinator. The FTTF meets on an intermittent basis be scheduled teleconference or in-person meetings to discuss issues, problems, further refinement of the standards. These discussions will provide a means to benchmark results and provide feedback to each other on possible enhancements to the participants' implementations. The FTTF realized that the technology being implemented is relatively new and all organizations can benefit from the sharing of research and technical information and the resolution of gas business issues integrated with the new technologies.

Importance of the Trading Partner Agreement When Using Internet ET and WGQ QEDM

The Trading Partner Agreement specifies expectations of what functions are to be performed and by whom. will perform what function and how it will be accomplished in Internet EDM should, at some level, be laid out in the trading partner agreement. In addition, the Internet ET specifies an optional Technical Exchange Worksheet that outlines basic communication informationThis clarification in the agreement would help to expedite a smoother communication between the trading partners when first setting up an their Internet ETDM relationship. The newness of the Internet EDM standards and the various implementations of the applications between trading partners bring to the forefront a quandary of issues related to establishing the business rules associated with these standards. The specifications in the trading partner agreement should be tested before production implementation to formulate a solution to any problems revealed during testing well before reliance on the implementation.

Concerns About Future Reliability of the Public Internet

The infrastructure of the internet has proven to be dependable, however,Ccontinued monitoring of the Internet's viability as an infrastructure should will take place. Increased traffic and potential lack of sufficient transmission capacity on the Internet is difficult to predict and quantify at this time. Concerns may be resolved by new Internet service providers and new communications technologies to compensate for the rapid growth of the Internet.

Further Information

Please see the NAESB home page at http://www.naesb.org/ for additional useful information on the implementation of the WGQ Internet QEDM.