North American Energy Standards Board
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NORTH AMERICAN ENERGY STANDARDS BOARD
2002 ANNUAL PLAN – WHOLESALE GAS QUADRANT

	Item Description	Completion[1]	Assignment
	Contracts		
1	Complete the development of the contract for purchases and sales of natural gas. **Status: Complete with the exception of credit annex.**	1st Qtr	Contracts Subcommittee
2	Develop the Mexican Addendum to the base contract for purchase and sales of natural gas.	3rd Qtr	Contracts Subcommittee
3	Build an electronic contract for the base contract for purchase and sales of natural gas.	4th Qtr	Contracts Subcommittee
9	Modify the Funds Transfer Agreement as necessary after several years of use. **Status: Subcommittee work completed**	2nd Qtr	Contracts Subcommittee
	Electronic Delivery Mechanisms and Related Activities		
4	Complete technical implementation of Sandia recommendations. **Status: Executive Committee approved, Member ratification pending.**	1st Qtr	EDM Subcommittee
5	Explore additional possibilities for partnership with the Department of Energy similar to that of the Sandia report.	2nd Qtr	EC Officers
6	Review and enhance security standards as required by technological changes.	2nd Qtr	EDM Subcommittee
7	Develop XML technical implementation for base contract and for scheduling documents necessary to complete the pilot program. **Status: Subcommittee work suspended.**	4th Qtr	XML Subcommittee
	Standards Implementation		
8	Continue the implementation of FERC Order No. 637 standards as specified in the Order 637 work plan defined by the Order 637 GISB Action Subcommittee.	3rd Qtr	Assigned by the EC
10	Develop standards as necessary to implement the FERC order as a result of Docket No. RM96-1-019 (Partial Day Recalls).	4th Qtr	Assigned by the EC

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[1] Dates in the completion column are by end of the quarter for completion by the assigned committee. The dates do not necessarily mean that the standards are fully staffed so as to be implementable by the industry, and/or ratified by membership. If one item is completed earlier than planned, another item can begin earlier and possibly complete earlier than planned. There are no begin dates on the plan.

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Item Description	Completion[2]	Assignment
Provisional Activities[3]		
Examine report and determine if an "energy day" standard is needed, including assessment of changes to existing GISB standards.		
Determine if a standard transportation services agreement is needed and if so, develop it. Determine if a model financial hedging agreement is feasible and if so develop a model financial hedging agreement.		
Develop standards as necessary to implement the FERC order are a result of Docket No. RM01-10-000 (Affiliate Order).		
Program of Standards Maintenance & Fully Staffed Standards Work[4]		
Business Practice Requests	Ongoing	Assigned by the EC on a request by request basis
Continue review against plan for migration to ANSI ASC X12 new versions as needed and coordinate such activities with DISA.	Ongoing	ANSI (X12) Subcommittee
Information Requirements and Technical Mapping of Business Practices	Ongoing	Assigned by the EC on a request by request basis
Ongoing Interpretations for Clarifying Language Ambiguities	Ongoing	Assigned by the EC on a request by request basis
Ongoing Maintenance of Code Values and Other Technical Matters	Ongoing	Assigned by the EC on a request by request basis

Notes: (a) Priority is given to action items that are carry-overs from the 2001 Annual Plan.

(b) Any new activity should be preceded by a request from the submitter after which it will be revisited. The provisional items would only be addressed after a request is submitted or an order is issued by the FERC.

[2] Dates in the completion column are by end of the quarter for completion by the assigned committee. The dates do not necessarily mean that the standards are fully staffed so as to be implementable by the industry, and/or ratified by membership. If one item is completed earlier than planned, another item can begin earlier and possibly complete earlier than planned. There are no begin dates on the plan.

[3] To the extent that it is determined that any of the provisional activities should be worked upon during the year, the Board has the discretion to modify the annual plan.

[4] This work is considered routine maintenance and thus the items are not separately numbered.

RECOMMENDATION TO GISB EXECUTIVE COMMITTEE
REVISED BY THE EXECUTIVE COMMITTEE – 4/18/02

Requester: Systrends **Request No.: R01020**

1. Recommended Action:

_Accept as requested
Accept as modified below
_X_ Decline

Effect of EC Vote to Accept Recommended Action:

_Change to Existing Practice
_X Status Quo

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2. TYPE OF MAINTENANCE

Per Request:	**Per Recommendation:**
_Initiation	_Initiation
_Modification	_Modification
___Interpretation	___Interpretation
___Withdrawal	___Withdrawal
_Principle (x.1.z)	_Principle (x.1.z)
___Definition (x.2.z)	___Definition (x.2.z)
_Business Practice Standard (x.3.z)	_Business Practice Standard (x.3.z)
___Document (x.4.z)	___Document (x.4.z)
___Data Element (x.4.z)	___Data Element (x.4.z)
___Code Value (x.4.z)	____Code Value (x.4.z)
___X12 Implementation Guide	____X12 Implementation Guide
_X_ Business Process Documentation	_Business Process Documentation

3. RECOMMENDATION

SUMMARY: Decline the request to add an identifier for "XML" to the list of possible identifiers within the input-format HTTP request data element of the EDI/EDM specification.

Provide the following language to ERCOT and make available in EC minutes of 4/18/02:

> "Although XML is not a NAESB standard at this time, the NAESB Wholesale Gas Quadrant (WGQ) is not opposed to other parties using XML in their Electronic Delivery Mechanism implementations. However due to the pending formation of the quadrants that are most immediately impacted, the WGQ of the NAESB Executive Committee directs that request no. R01020 be sent for consideration to other applicable NAESB quadrants when formed. In the interim, parties may use "XML" as an "input data" type, and may exchange XML transaction sets between trading partners, on a mutually agreeable basis."

RECOMMENDATION TO GISB EXECUTIVE COMMITTEE
REVISED BY THE EXECUTIVE COMMITTEE – 4/18/02

Requester: Systrends **Request No.: R01020**

Deleted: STANDARDS LANGUAGE:

Deleted: Modify the EDM Manual (pdf page 50, Version 1.5) as follows:¶ ¶ Business¶ Name ... [1]

4. SUPPORTING DOCUMENTATION

a. Description of Request:

Addition of an identifier for "XML" to the list of possible identifiers within the input-format HTTP request data element of the EDI/EDM specification

b. Description of Recommendation:

THE EDM Subcommittee evaluated the addition of an identifier for "XML" to the list of possible identifiers within the input-format HTTP request data element of the EDI/EDM specification. After considerable discussion, the Request was denied. The vote was not unanimous.

c. Business Purpose:

The Energy Reliability Council of Texas (ERCOT) desires to replace an existing FTP process with GISB EDM. However, the current version of GISB EDM does not include formal support for XML within the input format HTTP request data element. The addition of "XML" as recognized, standard identifier within the input-format request data element will permit ERCOT to replace FTP with GISB EDM.

d. Commentary/Rationale of Subcommittee(s)/Task Force(s):

See minutes of the EDM Subcommittee for 2/28/02, 3/06/02, 3/11/02, and 3/13/02. Following is what had been proposed for adoption but the Edm Subcommittee voted to deny these changes:
Modify the EDM Manual (pdf page 50, Version 1.5) as follows:

Business Name	Definition	Format	Usage*	Condition

RECOMMENDATION TO GISB EXECUTIVE COMMITTEE
REVISED BY THE EXECUTIVE COMMITTEE – 4/18/02

Requester: Systrends **Request No.: R01020**

input-data	Descriptor of the data format used for the file transmitted	X12; FF; XML; error	in Request; M	"X12", "FF", or other GISB standard format indicator used in file transmittal; "error" used in posting back any decryption - related errors. Note: "XML" is not a GISB standard format. Trading Partners that exchange XML documents on a mutually agreeable basis should use "XML".

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Also included is a related error code. Corresponding changes to the EDM Manual (pdf page 83 Version 1.5) are:

Validation Code	Description	Data Element	Required vs. Mutually Agreed
EEDM119	Invalid input-format value 'XML' not mutually agreed	input-format	mutually agreed

Page 2: [1] Deleted **Davis, Dale M** **6/8/02 7:06 PM**

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Validation Code	Description	Data Element	Required vs. Mutually Agreed
EEDM119	Invalid input-format value 'XML' not mutually agreed	input-format	mutually agreed

[EDM MANUAL TAB 10 - APPENDICIES]

APPENDIX A - Reference Guide

CGI

An excellent source on CGI is a book entitled “Special Edition Using CGI” by Jeffrey Dwight and Michael Erwin.

Firewall Security

An excellent source which covers this topic in detail is a book entitled "Firewalls and Internet Security: Repelling the Wily Hacker" by William Cheswick and Steven Bellovin.

GISB

GISB Web Site: (http://www.gisb.org) Primary reference for natural gas industry standards

General GISB FTTF Reference Page: (http://www.gisb.org/fttf.htm). This location provides pointers to samples and further documentation.

HTTP

The GISB EDM architecture is based on HTTP 1.1 and all implementations should be compatible with this version.

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W3C WorldWide Web Consortium. All aspects of HTTP, HTML, and other Web-related topics are documented at:
http://www.w3.org/pub/WWW/

General information regarding HTTP with basic terminology included are documented at:
http://www.w3.org/pub/WWW/Protocols/HTTP/1.1/spec.html/

Deleted: 1.0/spec.html

Syntax information for multipart can be found in IETF RFC1341 section 7.2. (www.ietf.org)

HTML

Before April 24, 1998, the recommended standard from the WorldWide Web Consortium was HTML 3.2. The specification for this standard can be found at:
http://www.w3.org/pub/WWW/TR/REC-html32.html

Effective April 24, 1998, the WorldWide Web Consortium has made a recommendation for HTML 4.0. Information on HTML 4.0 may be found at http://www.w3.org/TR/REC-html40/.

http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html

http://www.interlink-2000.com/guide-to-publishing-html.html

Special Edition Using HTML, Second Edition, Mark Brown, John Jung, and Tom Savola, Que Corporation, 1996.

PGP Software

PGP is available for a variety of operating systems and platforms. For more information contact Network Associates (http://www.nai.com)

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Time Synchronization

Testing has shown that the clocks on all computer systems drift. It has also been surprising to see just how much they do. Time synchronization is required to assure that all trading partners transaction times are accurate. Time accuracy is dependent on how much a system's clock drifts, how frequently it is resynchronized and the accuracy of the source used for synchronization.

Authoritative time synchronization is now being provided by governmental agencies around the world based on a synchronized network of atomic clocks. In the United States this includes the U. S. Naval Observatory and the National Institute of Standards and Technology.

A easy way to obtain the current time is from the U. S. Naval Observatory's Web site at http://tycho.usno.navy.mil/cgi-bin/timer.pl. The output from this page can easily be edited and reformatted to set a local system's time. Commercial, shareware and public domain packages are also available to synchronize system times. Among them are NTP (which is an internet standard), internet daytime, nisttime / usnotime.

Further information on time synchronization may be found at the following Web sites:

http://www.eecis.udel.edu/~mills/ntp/test.html

http://tycho.usno.navy.mil/ntp.html

http://www.ccd.bnl.gov/xntp

http://www.txdirect.net/users/sfisher/clock.html

http://www.is.co.za/resources/ftpsite/tucows/softsync.html

APPENDIX B - Repudiation and Validation Examples

Repudiation and Validation examples:

When a transaction file is received using the EDM mechanism there are several questions that typically must be answered:

1.) Is the HTTP sender (from) valid to send to the HTTP 'to' party?
2.) Does the HTTP sender match the party who encrypted and signed the file?
3.) Does the HTTP sender match the sender within the file?
4.) Is that sender with the data valid to 'speak' for the parties transacting business?

Is the HTTP sender (from) valid to send to the HTTP 'to' party?

The first validation, determining that a party is a valid sender must be done during CGI execution. This is simply a 'look up' verification that the Common Code Identifier 'from' is recognized as a valid sender.

Does the HTTP sender match the party who encrypted and signed the file?

The next validation, determining that the HTTP sender is the same as the signer, requires that the following information be available:

1. The 'from' common code identifier (9 digit D-U-N-S® Number). This is the second field in the HTTP post message sent to the CGI. This information must be preserved from that earlier process and passed to the 'post-CGI' process.

2. The Pretty Good Privacy (PGP) User ID associated with that same party

To compare these items a 'table' would most likely be established that would allow the post-CGI process to identify that there is a correlation between these identifiers. The origin of the 'from' identifier is the HTTP POST 'from' field. The origin of the PGP user ID is the decryption process. The PGP User ID of the signer is a byproduct of file decryption on a signed file. If PGP is executed from the command line the output would be presented in a format like:

Good signature from user "ABC CORP".
Signature made 1997/05/13 19:30 GMT
Plaintext filename: test3

If PGP is executed using a program interface the User ID that signed the file will be provided in a buffer. Comparing this buffer to the expected User ID would serve to verify this value.

Does the HTTP sender match the sender within the file?

The data file itself indicates (in the case of X12 data) the sender and the intended recipient within the ISA segment. Although this may be the same (D-U-N-S® Number) as the 'from' data these fields are not standardized. This may require the use of a 'table' to relate these identifiers.

Consider also that, although it is strongly recommended that only a single ISA be contained within a file, that

the process should account for the possibility of several ISA segments. This comparison will ensure that the parties used during translation are in fact the parties that sent, encrypted and signed the data.

Is that sender with the data valid to 'speak' for the parties transacting business?

This last validation is listed here only to complete the chain of identity. The process that would evaluate this relationship would typically be the business application. Since we have checked the identity through each step of this process this is the point at which the identity of the sender would finally be verified as having a business relationship to conduct the business specified.

APPENDIX C - Minimum Technical Characteristics and Guidelines for the Developer and User of the Customer Activities Web Site[1]

Deleted: Minimum (11/15/1999) Technical Characteristics and Guidelines for the

Browser Characteristics (includes defined GISB current versions):

Features as supported by the latest generally available (GA) versions of both Netscape®[2] and Internet Explorer®[3] within 9 months of such GA version becoming available, including -

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- Frames & Nested Frames
- Tables & Nested Tables
- HTML
- Cookies
- JavaScript
- SSL 128-bit RSA Encryption
- Style Sheets

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Plug-ins (Generally Available (GA) versions within 9 months of such GA versions becoming available)

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- JAVA®
- ActiveX®[4] (Plug-in for Netscape®)
- Adobe Acrobat PDF Reader® footnote 5 Adobe Acrobat® is a registered trademark of Adobe Sytems Incorporated
- Independent Computer Architecture (ICA®) - Protocol used for remote control access to an application

Operating Systems:

Operating systems on a client workstation should be multithreaded and preemptive.

Hardware:

CPU	>=500 MHz
Memory	>=256 MB Physical
Display Resolution	>=1024 x 768, 16K colors
Connection	>=56 KB (v.90)

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1 Configuration shown indicates a minimum except where a specific level is established. 'Minimum' implies a level where a reasonable experience for the user may be achieved. These levels also indicate the level that a user may expect that a client has been tested. Results may be less than satisfactory, or may preclude use of a site, if the user chooses to use anything less than those levels shown.

2 Netscape® is a registered trademark of Netscape Communications Corp.

3 Internet® Explorer is a registered trademark of Microsoft Corporation.

4 ActiveX® is a registered trademark of Microsoft Corporation.

Example Configuration[1]

Hardware:	CPU: P500 MHz or higher Memory: 256MB Physical Display Resolution: 1024 x 768, 16k colors Pointing Device with left and right click capability
Operating Systems:	Windows®[2] 98 Windows® NT 4.0 Windows® 2000
Connection:	56KB (v.90) modem ISDN Direct Connect (T1, Fractional T1, etc.) DSL Cable Modem
Browser:	Netscape® Communicator/Navigator Microsoft® Internet Explorer
Plug-ins:	JAVA® ActiveX® (Plug-in for Netscape®) Adobe Acrobat Reader® ICA®

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Memory - Users who want to have multiple applications or EBBs open simultaneously should consider more memory.

CPU Speed - Users should be aware that higher CPU speeds my result in better performance.

[1] Specific products should be reviewed prior to implementation for Year 2000 compliance. Examples provided represent a non-comprehensive set of configurations that a client may use. This example list in no way should be construed as an endorsement by GISB of any specific products. Other products meeting the minimum technical characteristics of the client workstation may be used.

[2] Windows® is a registered trademark of Microsoft Corporation .

APPENDIX D - Minimum and Suggested Technical Characteristics and Guidelines for the Developer and User of the Informational Postings Web Site

User technical characteristics provide specifications to the developer on the user environment for which the application will be designed and tested. Likewise, they will serve as guidelines to the user when purchasing the appropriate hardware and software to enable him/her to use the application.

Informational Postings Web Site User Technical Characteristics

	Minimum	Suggested
Connection Device:	28.8 KB	Direct Connect
Operating System:	Multi-threaded & Preemptive	
RAM:	128 MB	>128 MB
Browser Capabilities:	Cookies & JavaScript Frames & Nested Frames Tables & Nested Tables HTML 3.2	
Display Resolution:	1024x768,16k colors	>1024x768,16k colors

Definitions:

Minimum user technical characteristics -

The environment and components for which the Web site application is designed and tested. This should include:
- a client environment comprised only of characteristics listed above, and,
- support for all mandated functions in accessing Informational Postings.

Suggested user technical characteristics -

Environment or components not required to perform all mandated functions in accessing Informational Postings, but could provide an enhanced user experience.

Examples of User Workstations Meeting Criteria of Informational Postings Web Site User Characteristics[1]

	Minimum	Suggested
Hardware:	Pentium®[2] 200MHz or equivalent	Pentium® 500MHz or greater
RAM:	128 MB	> 128 MB
Communication Device:	28.8	Direct Connect ISDN Satellite 56 KB modem DSL Cable-Modem
Monitor:	12" Laptop 15" Desktop	> 12" Laptop > 15" Desktop
Display Capabilities:	1024X768 16k colors	>1024x768 ~~> 256 colors~~ 16K colors
Operating System:	Windows® 95 System 7®[3] Solaris®[4] 2.5	Windows® XP Windows® 98 Windows® NT 4.0 Solaris® 2.6 System 8® Windows® 2000 Windows® ME Linux
Browser:	Microsoft Internet Explorer® Netscape® Communicator	Microsoft Internet Explorer® Netscape® Communicator

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[1] Technical implementations above represent a non-comprehensive set of choices which an implementer may use. This list in no way should be construed as an endorsement by GISB of any specific products. Other products supporting technical implementation may be used.

[2] Pentium® is a registered trademark of Intel Corporation.

[3] System 7® and System 8® are registered trademarks of Apple Computers, Inc.

[4] Solaris® is a registered trademark of Sun Microsystems, Inc.

Informational Postings Web Site Developer Technical Characteristics

User's environment supporting the above minimum characteristics should be able to access all GISB standardized features of Informational Postings Web Sites.

Any other Web technologies may be considered for use by the developer as long as they can be used by the client without requiring special actions including firewall rule changes, use of a specific browser, logons and downloads of special helper applications such as plug-ins, viewers or readers.

APPENDIX E - MINIMUM TECHNICAL CHARACTERISTICS FOR AN EDM SERVER

Allowable TCP Ports (not UDP ports)

HTTP HTTPS 80, 443, 5713, 6112, 6304, 6874, 7403

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ICA® 1494
RMI(Java®) 1099-1100
Java® Telnet 31415
TCP Optional 8001-8020**
SMTP 25

Allowable UDP Ports (not TCP ports)

Secure ICA 1604

There are other technologies available that would require additional ports to be opened, such as FTP and Telnet. If and when GISB approves such technologies, FTTF will modify this list of allowable ports accordingly. The client-side firewall implementation and client browser settings should permit the downloading and installation of GISB approved plug-ins and modules. Please refer to the GISB defined Minimum Technical Characteristics for Accessing Customer Activities Web Sites for the listing of GISB approved plug-ins and modules.

**The reservation of 20 optional ports was to provide room for implementations such as DCE, IIOP, and load balancing implementations. TSPs should endeavour to minimize the usage of these ports.

[EDM MANUAL TAB2 - TABLE OF CONTENTS]

ICA® is a registered trademark of Citrix Systems Inc.

JAVA® is a registered trademark of Sun Microsystems, Inc.

INTRODUCTION

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TAB 9 TECHNICAL IMPLEMENTATION - INTERACTIVE FF/EDM

Provides an overview of the business process for Interactive FF/EDM.

TAB 10 Appendix

Appendix A - Reference Guide
Appendix B - Repudiation and Validation Examples
Appendix C - Minimum Technical Characteristics and Guidelines for the Developer and User of the Customer Activities Web Site
Appendix D - Minimum and Suggested Technical Characteristics and Guidelines for the Developer and User of the Informational Postings Web Site
Appendix E - Minimum Technical Characteristics for an EDM Server

[ADDITIONAL CHANGES TO EDM MANUAL]

These changes revise references to HTTP 1.0 to HTTP 1.1. Page numbers are the pdf page numbers of the EDM Manual, Version 1.5.

Page 103

Security

Authentication

Standard 4.3.84 calls for use of Basic Authentication. This is a standard part of the HTTP specification. Without use of encryption,…

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These changes revise references to HTTP 1.0 (to HTTP 1.1) in the first line of the "gray box" examples on the noted pages.

Page 60

POST /cgi-bin/AS2dispatcher HTTP/1.1

And, just below the gray box, the following text should be changed:

The first line: *POST /cgi-bin/AS2dispatcher HTTP/1.1* indicating that the POST method is used and which program to call.

Page 65

POST /cgi-bin/AS2dispatcher HTTP/1.1

Page 68

POST /cgi-bin/AS2dispatcher HTTP/1.1

Page 79
POST /cgi-bin/AS2dispatcher HTTP/1.1