TAB 12

Retail Subcommittee Updates

- ***Business Practices Subcommittee***
- ***Information Requirements Subcommittee***
- ***Technical Electronic Implementation Subcommittee***

North American Energy Standards Board
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TO: NAESB Retail Electric Quadrant and Retail Gas Quadrant Business Practices Subcommittee Participants and Interested Industry Participants

FROM: DeDe Kirby, Meeting/Project Manager, NAESB

RE: Draft Minutes from the NAESB Retail Electric Quadrant and Retail Gas Quadrant Business Practices Subcommittee (BPS) Meeting – Conference Call with Web Conferencing on March 9, 2005

DATE: March 22, 2005

Retail Electric Quadrant and Retail Gas Quadrant
Joint Business Practices Subcommittee Meeting
Conference Call with Web Conferencing on March 9, 2005
Final Minutes

1. Administrative

Mr. Jones welcomed the participants and stated he was the chair for the Retail Electric Quadrant (REQ) Business Practices Subcommittee (BPS). He added that Mr. Precht was the chair for the Retail Gas Quadrant (RGQ) BPS and that Mr. Alston was a chair of the Retail Quadrants (RXQ) Information Requirements (IR) Subcommittee. Participants introduced themselves and Ms. Edwards gave the anti-trust advice.

Mr. Jones suggested that an item "Gas Flat Files" be added to the agenda under agenda item #4 "Carry-over work from REQ/RGQ Customer Process Subcommittee (CPS)". Mr. Newbold moved to adopt the agenda as revised and Ms. Camp seconded the motion. The revised agenda was adopted absent objection.

The group reviewed the REQ/RGQ Supplier-Utility Interface Subcommittee (SUIS) and Wholesale Gas Quadrant (WGQ) Contracts Subcommittee joint January 6, 2005 draft minutes. The phrase "Conference Call with Web Cast" was added to the header of the minutes. The group discussed including detailed records (charts showing the record of every vote by each participant) of votes when taken during meetings. Mr. Sappenfield stated that detailed votes were generally included in minutes when votes were not unanimous or when the chair requested they be included. Ms. Edwards noted that at the January 6, 2005 meeting all votes had been unanimous in support of the various items voted on. Mr. Jones requested that in future votes noted as important by the chairs of the meeting, a detailed record of the vote be included in the minutes. Mr. Newbold moved to adopt the minutes as amended, and Ms. Edwards seconded the motion. The modified minutes were adopted absent objection. Mr. Sappenfield asked that the minutes reflect that a member of the WGQ Contracts Subcommittee was present and voted to adopt the minutes. *Please see RXQ SUIS January 6, 2005 "Final Minutes" at http://www.naesb.org/pdf2/req_rgq_suis010605fm.doc to view changes made.*

Next, the group reviewed the CPS October 26, 2004 draft minutes. Previous modifications made to the minutes at the CPS December 6, 2004 meeting include the following: the phrase "quadrant and" was added to the third sentence of the third paragraph under agenda item #1 "Administrative"; the second half of the last sentence of the first paragraph under the agenda item #2 "Discuss comments from Southern Company and Old Dominion" was changed to "MBPs, a request should be submitted to the NAESB office for assignment to the Triage Subcommittee"; the word "time" was deleted from the second sentence of the paragraph under agenda item #9 "Adjournment"; and the attendance list was also modified to reflect the correct quadrant and segment of the various participants. Ms. Ray moved to adopt the minutes as modified and Ms. Edwards seconded the motion. The modified

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minutes were adopted absent objection. *Please see CPS October 26, 2004 "Final Minutes" at http://www.naesb.org/pdf2/req_rgq_cps102604fm.doc to view changes made.*

The group reviewed the CPS December 6, 2004 draft minutes. The group discussed whether the attendance list of future meetings of the RXQ BPS should reflect the quadrant and segment of participants. Mr. Jones stated that it was beneficial to have such information noted. Mr. Zollars was noted as a RGQ Supplier under agenda item #7 "Attendance". Ms. Edwards moved to adopt the minutes as modified and Mr. Wolfe seconded the motion. The minutes were adopted absent objection. *Please see CPS December 6, 2004 "Final Minutes" at http://www.naesb.org/pdf2/req_rgq_cps120604fm.doc to view changes made.*

Next, the group reviewed the SUIS September 27, 2004 draft minutes. Several revisions were made to agenda item #7 "Attendance" to correctly reflect the quadrant and segment of participants. Ms. Edwards moved to adopt the minutes as modified, and Mr. Thiry seconded the motion. The minutes were adopted absent objection. *Please see SUIS September 27, 2004 "Final Minutes" at http://www.naesb.org/pdf2/req_rgq_suis092704fm.doc to view changes made.*

Mr. Jones stated that a clean copy of all final minutes would be posted.

2. Update on February 2, 2005 REQ/RGQ Executive Committee meeting

Ms. Edwards reviewed the results of the February 2, 2005 REQ and RGQ Executive Committees (ECs) meeting with the group. She stated that guidelines had been set out for the formatting of the standards books. She referred the group to the February 2, 2005 RXQ EC draft minutes located on the NAESB website at http://www.naesb.org/pdf2/req_rgq_ec020205rdm.doc. Ms. Edwards reviewed the document "Baltimore Gas and Electric Company Proposal for Book RxQ.0 Content" located on the NAESB website at http://www.naesb.org/pdf2/req_rgq_bps030905w1.doc. Additionally, Ms. Edwards reviewed the "RGQ 2005 Annual Plan Redline – Modified 20205" located on the NAESB website at http://www.naesb.org/pdf/req_rgq_ec020205a1.doc and the "REQ 2005 Annual Plan Redline – Modified 20205" located on the NAESB website at http://www.naesb.org/pdf/req_rgq_ec020205a2.doc.

3. Carry-over work from REQ/RGQ SUIS

Update on Trading Partner Agreement and User Guide – R04017

Ms. Edwards also reviewed the results of the March 4, 2005 joint EC meeting. She stated that the meeting was to approve recommendation R04017. Ms. Edwards added that the recommendation had been modified during the EC meeting and therefore a notational ballot had been distributed for those EC members not in attendance and not designating an alternate on March 8, 2005. Ms. Edwards added that the ballot was due back March 15, 2005. *Please note that the March 4, 2005 Joint EC meeting draft minutes are located at http://www.naesb.org/pdf2/req_rgq_wgq_ec030405dm.doc.*

4. Carry-over work from REQ/RGQ CPS

R04034 – Cinergy Request

The group reviewed "R04034 – Cinergy Request" located on the NAESB website at http://www.naesb.org/pdf2/req_rgq_bps030905w2.doc. The group discussed the inclusion of an executive summary and an introduction in the Billing and Payment Model Business Practices (MBPs) book. Mr. Jones stated that through request R04034 the subcommittee had been authorized to review the executive summary and introduction portions of the standard. Ms. Alexander stated that the process of completing the standard should not be unduly delayed.

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Mr. Alston reviewed the tab formatting for standards books found in "Baltimore Gas and Electric Company Proposal for Book RxQ.0 Content" *(referenced above)*. He stated that the following designations had been proposed: tab 1 is to contain the executive summary; tab 2 is to contain the version notes; tab 3 is to contain the introduction; tab 4 is to contain the definitions and models; and tab 5 is to contain the MBPs.

Language from the introductory portion of the "Draft of Implementing Billing and Payment 10/1/04" located on the NAESB website at http://www.naesb.org/pdf/req_rgq_cps102604w1.doc was used by the group in the development of "Draft – Tab 1 Billing and Payment Executive Summary 3/09/05" located on the web at http://www.naesb.org/pdf2/req_rgq_bps030905a2.doc. The group decided that the introduction should be at a high level and be consistent throughout the RXQ standards books. *Please see "Draft – Tab 3 Billing and Payment Introduction 3/09/05" located on the NAESB website at http://www.naesb.org/pdf2/req_rgq_bps030905a3.doc*. The group also discussed moving the previous overview section of the Billing and Payment MBPs to the beginning of the section containing the MBPs.

The group discussed the process for numbering the RXQ Dot Zero Books. Mr. Novak stated that the NAESB office would format the books and return them to the subcommittee for further revisions if needed. Mr. Jones clarified that to avoid confusion the NAESB office would format the ratified books. Mr. Newbold stated that new work on the ratified Billing and Payment MBPs would have to undergo the NAESB process before becoming part of the book itself. Mr. Alston clarified that the formatting of the books was work in progress and was therefore subject to several revisions. Ms. Edwards stated that the focus of the group should be to continue work on drafting an executive summary and introduction for the Billing and Payment MBPs book. She added that she would begin work on tab 2 version notes for the book.

Discussion on status of TEIS's work on requirements for ratified Billing and Payment MBP

Mr. Behr discussed the progress of the RXQ Technical Electronic Implementation Subcommittee (TEIS). He stated that the group was set to complete the quadrant specific Electronic Delivery Mechanism (QEDM) document at the March 10, 2005 meeting of the TEIS. He added that this document would then be forwarded to the REQ and RGQ ECs for approval. Mr. Behr explained that the QEDM, after undergoing the NAESB process, would become part of the RXQ Dot Zero Standards Book.

Mr. Behr explained that the document for the technical implementation of the MBPs, or the TIBP, was set to be forwarded to the REQ/RGQ Information Requirements Subcommittee (IR) by the TEIS. He added that he was a chair of the new IR. Mr. Alston stated that the most recent version of the TIBP, "TIBP 110104", was posted on the NAESB website at http://www.naesb.org/pdf/req_rgq_cps120604w1.doc.

Gas Flat File

Mr. Novak stated that the focus for the REQ and RGQ was for the development of data sets to implement the MBPs through X12 first and then through flat files. He explained that the decision had been to proceed with X12 first because it was used most by industry participants. Mr. Novak added that entities could still employ flat file implementation with a minor amount of adjustment. Mr. Behr stated that the TEIS and the IR would be discussing this issue further. Mr. Jones clarified that work concerning implementation through X12 and flat files would mainly be appointed to the IR. The IR would be consulting the BPS on questions of business.

Single Retailer Billing Option

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The group discussed whether a single retailer billing option should be included in the Billing and Payment MBPs book. Members of the group noted its similarity to the consolidated billing option included in the Billing and Payment MBPs book. Several members of the group questioned why the option would be eliminated from the book. Mr. Novak noted its use in New York and Mr. Alston noted its use in Texas. Mr. Alston stated that if the single retailer billing option was included, the BPS would make sure the model was written correctly. Mr. Jones stated that he withdrew Cinergy's request to eliminate the option from the Billing and Payment MBPs.

5. Next Steps

Mr. Jones stated that BPS will begin work on the development of customer information exchange, as stated in the REQ and RGQ 2005 Annual Plans. *Customer information is Annual Plan Item #3 of the RGQ 2005 Annual Plan, located on the NAESB website at http://www.naesb.org/pdf/rgq_2005_annual_plan.pdf. Customer information is Annual Plan Item #3 of the REQ 2005 Annual Plan, located on the NAESB website at http://www.naesb.org/pdf/req_2005_annual_plan.pdf*. Members of the group requested a reference document page on the NAESB website for the BPS. The reference document would be used to post models and examples of how various regions of the country share customer information. *The reference document page for the BPS is located on the NAESB website at http://www.naesb.org/retail_bps_doc.asp*.

Mr. Jones stated that a draft of the formatted MBP would be available for the BPS at the next meeting. He added that he would work with Ms. Edwards and Mr. Alston to complete an executive summary draft and introduction draft for the Billing and Payment MBPs book before the next meeting of the BPS. A conference call was scheduled for April 1, 2005. The group scheduled meetings in Houston, TX for April 13-14, 2005 and May 24-25, 2005.

6. Adjourn

Mr. Alston moved to adjourn and Ms. Ray seconded the motion. The meeting was adjourned at 4:00 Eastern.

7. Attendance

Name:		Organization:	Quadrantsegment
Alexander	Barbara	State of Maine Public Advocates Office	REQ, End User
Alston	Rick	Old Dominion Electric Coop	REQ, Distributor
Barkas	Bill	Dominion Retail	REQ, Supplier
Behr	George	ESG	RGQ, Services
Bholat	Osman	Savannah Electric	REQ Distributor
Camp	Yvette	Southern Company	REQ, Distributor
D'Almeida	Dina	PSE&G	REQ, Distributor
Dorman	Davis	Mississippi Power	REQ Distributor
Edwards	Mary	Dominion Virginia Power	REQ, Distributor
Jones	Dan	Cinergy	REQ, Distributor
Kirby	DeDe	NAESB	
McShane	Mike	Baltimore Gas & Elec.	RGQ Distributor
Newbold	Bill	Detroit Edison	REQ, Distributor
Novak	Mike	National Fuel	RGQ, Distributor
Overtree	Edward	Alpine Corp.	REQ, Supplier
Ray	Judy	Alabama Power	REQ, Distributor
Sappenfield	Keith	EnCana Corp.	WGQ, Services
Thiry	Ken	Wisconsin Public Service	REQ, Distributor
Thomason	Angela	NAESB	
Wolf	Bill	Baltimore Gas & Elec.	REQ, Distributor

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TO: **REQ/RGQ BPS members,**
Posting for Other Interested Industry Participants

FROM: **Todd Oncken, NAESB Deputy Director**

RE: **REQ/RGQ BPS Meeting Draft Minutes - April 13-14, 2005**

DATE: **May 4, 2005**

NORTH AMERICAN ENERGY STANDARDS BOARD
REQ/RGQ Joint Business Practices Subcommittee (BPS) Meeting with Web Conferencing
April 13-14, 2005; Hosted by NAESB
Draft Minutes

1. Administrative

Mr. Jones called the meeting to order and welcomed attendees. Mr. Oncken gave the antitrust advice. The draft agenda was reviewed and a discussion of an email exploder for RXQ BPS and green standards was added. Ms. Edwards moved, seconded by Mr. Behr, to adopt the revised agenda. The motion passed unanimously. The draft minutes from March 9, 2005 were reviewed and modifications were offered. Ms. McCain moved, seconded by Mr. Wolf, to adopt the modified draft minutes. The motion passed unanimously.

2. Discussion of email exploder for BPS members

Mr. Oncken reviewed the procedures for setting up and using a NAESB email exploder. It was determined that developing an exploder would be appropriate and would help the RXQ BPS in its work.

3. Carry-over questions regarding MBP formatting

Overview presentation: Mr. Precht reviewed the numbering schema to be applied to the RXQ standards. He explained that the Executive Committees decided that the overall format should follow the format used in the WGQ standards. There was general discussion so that all participants understood the format. Ms. Alexander noted that it was her understanding that the NAESB Office would be formatting the documents, and questioned the subcommittee's participation in the process. Mr. Precht responded that the subcommittee was merely verifying the formatting had been applied correctly.

Discussion on any remaining questions regarding formatting decisions made by the Executive Committee at their February 2, 2005 meeting: Please see discussion above.

4. Discussion on Reformatted Ratified Billing and Payment Model Business Practices

Workpaper – Reformatted Ratified MBP (workpaper 2): The subcommittee reviewed the reformatted Billing and Payments MBPs and agreed the formatting was applied correctly, but the definitions should be renumbered as "RXQ 0" and those numbers should be carried throughout the books so that the definitions had a discrete number. Also, it was determined that "subject to change" should be deleted from the Overview section.

Vote to send Reformatted Ratified MBP to the Executive Committee for publication: The subcommittee determined no vote was required to forward the reformatted document to the Executive Committees for review at the May meeting.

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5. Discussion on R04034 – Cinergy Request

Workpaper – Redlined ratified MBP (workpaper 3): Mr. Jones reviewed the document generally and then the subcommittee discussed each proposed change. During discussion it was determined that the proposed overview should not be included because it duplicated the MBPs. Mr. Behr moved, seconded by Ms. McCain, to strike the overview section of Book 3. The motion passed with Mr. Wolf opposing.

The subcommittee made numerous changes to the proposed Executive Summary and the other proposed new language. It was noted that the changes made under item 4 (above) should be incorporated into this document. Proposed MBP RXQ.3.3.11, Termination of Billing Services, was deleted because it was determined that MBP RXQ.3.3.9.7 addressed the issues in the proposed practice.

R04034 – Cinergy Request: See discussion above.

6. Recess for Day One

The meeting recessed at 4:56 p.m. Central.

7. Administrative for Day Two

Participants were reminded that the antitrust guidelines in force on Day One remain in force.

8. Continue discussion on R04034 – Cinergy request

Participants discussed the next steps for Document 3. Ms. McCain opened discussion on whether a motion to approve the modified MBPs should include a request that the MBPs not be sent for member ratification until the technical implementation work is completed and it can go for member ratification as a complete package. Ms. McCain noted that the WGQ had experienced implementation issues when standards were sent for ratification piecemeal. There was extended discussion on how proposed MBPs should move through the development process.

Mr. Precht explained that there are two approaches to processing the MBPs, depending on whether it is a controversial or non-controversial issue. For controversial issues, he said it could make sense to forward the recommended MBPs to the Executive Committees before work is done on the technical implementation, since it would be more difficult to project the Executive Committees' support for the recommended MBPs. For non-controversial issues, he suggested it could be appropriate to forward the recommended MBPs to the technical subcommittees so the Executive Committees would be presented with a complete recommendation. He added that if this approach is taken, the subcommittees should report the progress of recommended MBPs at the Executive Committee meetings. Mr. Precht noted this was a non-controversial issue, so the second approach could be taken. Mr. Wolf added that a benefit to processing the request through full staffing before it is presented for approval by the Executive Committees is that the MBPs can be augmented if it is discovered that certain areas are left out during the technical development. Mr. Behr projected that the Information Requirements (IR) Subcommittee would finish its work on the recommendation in 2 Qtr 2005 and Technical Electronic Implementation Subcommittee (TEIS) would complete its work in 3 Qtr 2005.

For the RGQ, Mr. Precht moved, seconded by Mr. Behr, to adopt the changes as a result of the discussion pursuant to R04034 (Cinergy Request) and send revised document 3 to IR and report our actions to the EC, subject to the approval of the reformatted model business practices by the EC (document 2) and the renumbered glossary. The motion passed unanimously.

For the REQ, Ms. Edwards moved, seconded by Mr. Overtree, to adopt the changes as a result of the discussion pursuant to R04034 (Cinergy Request) and send revised document 3 to IR and report our actions to the EC, subject to the approval of the reformatted model business practices by the EC (document 2) and the renumbered glossary. The motion passed unanimously.

The revised and approved workpaper is attached to these minutes.

Vote to send modified Billing and Payment MBP to the Executive Committee for comment, vote and ratification: The BPS decided to send the MBPs to the IR Subcommittee instead of the Executive Committees. Please see discussion above.

9. Discussion on Additional Billing and Payment MBP Required – Doc 4 & 6

Workpaper – Additional MBP Required: The BPS reviewed the final workpaper completed by the Customer Processes Subcommittee that proposed modification to the Billing and Payments MBPs. During discussion it was noted that some of the proposed modification were addressed in Request R04034, but others were outstanding. Ms. Edwards reviewed a draft Request for Standards that would address the outstanding issues, as well as some issues discovered in subsequent review of the MBPs. Participants agreed the draft request covered the outstanding items. [Subsequent to the meeting the draft request was submitted. Please see Request No. R05008.]

Discuss process for formalizing Additional MBP: See discussion above.

Determine what Additional MBP are needed: See discussion above.

10. Discussion on 2005 Annual Plan Item No. 3 – Customer Information

Workpaper – Re-formatted UBP document: There was a general discussion about the goals for the Customer Information MBPs. Mr. Jones noted that workpaper 5 was an adaptation of the existing UBP document into NAESB format that could be used as a starting point for developing the MBPs. Ms. Alexander noted that the subcommittee should focus on the types of transactions contemplated by the Annual Plan and remember the distinction between this topic and the enrollment of a customer with a supplier. She added that the Annual Plan is clear that this should address pre-enrollment activities. Also, she said the BPS should be aware of the different policy approaches that different states have taken.

The subcommittee reviewed the document and determined that the following sections would not be addressed at this time: RXQ.5.3.4 - Validation List; RXQ.5.3.5 - Switch-Related Information General Practices; RXQ.5.3.6 - Standard Customer Information Elements for Switching Purposes; RXQ.5.3.7 - Switch Related Information Handling Procedures; and RXQ.5.3.8 - Post-Customer Switch Information Requests. Ms. Edwards volunteered to draft the Executive Summary and Introduction section based on the changes made to the Billing and Payments MBPs. Also, it was noted that the definitions would be processed through the Glossary Subcommittee after the BPS determined which terms should be defined.

The subcommittee looked at the remaining sections of workpaper 5 and made numerous changes to RXQ.5.1 - Principles; RXQ.5.3.1 - Customer Authorization Process; and RXQ.5.3.2 - Pre-Enrollment Customer Specific Information Requests. All changes are shown in an attachment to these minutes. During discussion on the Principles, it was determined that the ratified principles in each of the other RXQ books should be reviewed to determine their applicability and possible inclusion in this MBP. Regarding the Customer Contact Information Set and Billing Determinant Information Set, Ms. McCain suggested that this information would be better suited to the data dictionary rather than the MBPs.

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11. Next Steps

- *Reformatting remaining Ratified MBP* – The NAESB Office will complete this task.
- *Review 2005 Annual Plan items* – No action was taken on this item.
- *Future meeting schedule* – May 24, 2005 from 12:30 p.m. to 4:00 p.m. Central and May 25, 2005 from 8:30 a.m. to 3:00 p.m. Central hosted by NAESB in Houston, TX.
- *Brief discussion on standards for green markets* – This item was carried forward for the next agenda.
- *Agenda for next meeting* – review formatted RXQ books, review proposed executive summary and introduction for the remaining RXQ books (drafts provided by Ms. Edwards), continue work on customer information, initial review of customer enrollment MBP workpaper prepared based on UBP document (Mr. Overtree).

12. Adjourn

The meeting adjourned at 2:30 p.m. Central on Day 2.

13. Attendance

Name	Organization	Quadrant /Segment	Day 1	Day 2
Barbara Alexander	Maine PA	REQ/e	Phone	Phone
Bill Barkas	Dominion Retail	REQ/su		Phone
George Behr	ESG	RGQ/s	In Person	In Person
Yvette Camp	Southern Company	REQ/d	Phone	
Paul Cherevka	Dominion Retail	REQ/su	Phone	Phone
Rob Connell	ERCOT	REQ/s	In Person	In Person
Dina D'Almeida	PSE&G	REQ/d	In Person	In Person
Dorman Davis	Mississippi Power	REQ/d	Phone	
Mary Edwards	Dominion VA Power	REQ/d	In Person	In Person
Patrick Eynon	Ameren	REQ/d	Phone	
Karen Farley	ERCOT	REQ/s	In Person	In Person
Dan Jones	Cinergy	REQ/d	In Person	In Person
Calvin Ledford	PSE&G	REQ/d	In Person	In Person
Marcy McCain	Duke Energy Gas Transmission	RGQ/su	In Person	In Person
Bill Newbold	Detroit Edison	REQ/d	Phone	Phone
Todd Oncken	NAESB	NA	In Person	In Person
Ed Overtree	Calpine	REQ/s	In Person	In Person
Arthur Pearson	ESG	RGQ/s		In Person
Phil Precht	Baltimore Gas & Electric	RGQ/d	Phone	Phone
Judy Ray	Alabama Power	REQ/d	Phone	Phone
Jennifer Teel	EC Power	REQ/s	In Person	
Angela Thomason	NAESB	NA	In Person	In Person
Bill Wolf	Baltimore Gas & Electric	REQ/d	In Person	In Person

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

IR/TEIS Issue List for BPS Consideration

ID	DESC
IR001 (GB)	Usage MBP's appear sparse based on IR/TEIS knowledge of marketplaces in production
IR002 (GB)	Usage did not have data element for interval read end time
IR003 (BW)	Chg/Allow Line Description: changed from 'code' to text
IR004 (BW)	Bill-ready Usage Code: Does not belong in invoice
IR005 (BW)	'Reversal' versus 'Cancel' of charges
IR006 (GB)	Balance returned on Term of Billing Services: a) need to add; b) need to clarify if this is 'outstanding balance' or 'charges over x days old'
IR007 (GB)	Add 'write-off date'
IR008 (GB)	SRBO v. Bill-Ready invoice transaction: do they need to be separate?
IR009 (GB)	Add 'Taxing Entity' to bill ready.
IR010 (BW)	Clarify use of 'Service Type' in Payment transaction; ie supplier has both commodities for a single account; how do you identify amount applied to one service versus the other?
IR011 (DR)	Rate Ready billing, use of 'Payment Plan indicator'. Existing markets have 'budget balance', but no indicator. Delete indicator?

D R A F T IR/TEIS Working Paper

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

TECHNICAL IMPLEMENTATION: BILLING USAGE [GB]

Technical Implementation Of Business Process

Related MBP's: 1.3.2.3, 1.3.2.4 ??IR001

The Billing Usage (BillUsage) transaction is the inter-company communication that itemizes energy consumption or demand for a given period of time, used to determine invoice charges. The transaction reflects usage from actual meter reads, estimated meter reads, interval meter reads, unmetered usage, and usage used by the meter reader for billing. BillUsage is not used to communicate historical usage.

The Billing Usage transaction supports all market billing models (Dual billing, consolidated bill-ready and rate ready, and single retailer billing option).

The types of usage transactions supported by BillUsage in retail energy markets are:

- Monthly usage
- Interval usage
- Summarized interval usage
- Cancel usage (all of the above can be cancelled)

The **Sender** of the transaction is either the meter reading entity (MRE), the distribution company (LDC), or a central registration agent (e.g. ERCOT). The **Receiver** of the usage could be a supplier/retailer, a distribution company or a central registration agent (e.g. ERCOT).

The usage is identified by the **Usage Unique ID (UUID**; formerly 'Reference Number ID'). This UUID is assigned by the originator of the usage UET – either the MRE or the LDC. If usage is cancelled, the **Previous UUID** will reflect the UUID to be cancelled.

The UUID is echoed in any invoice or payment UET's that use this usage, establishing a thread to tie these transactions together for involved parties.

Each original BillUsage header contains:

- Final Indicator [FinalInd]
- Sender Common Code ID [SenderID]
- Sender Name [SenderName]
- Customer Account ID [CustAcctID]
- Customer Name [CustName]
- Customer Name Overflow [CustNameOver]
- Non-Billing Party Invoice Due Date [InvoiceDueDate]
- Receiver ID [ReceiverID]
- Receiver Name [ReceiverName]
- Receiver Account ID [ReceiverAcctID]
- Original UUID [OriginalUUID]
- Party Calculating Bill [PartyCalculatingBill]
- Party Sending Bill [PartySendingBill]
- Purpose [Purpose] = 'Original'
- Usage Unique ID [UUID]
- Report Type Code [ReportType]
- Service Type [ServiceType]
- Transaction Date [TransDate]

Each original BillUsage can contain multiple detail records. Each detail record contains:

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

- Ending/Single Reading [EndSingleRead]
- Quantity [Quantity]
- Summary Level [SummaryLevel]
- Unit of Measure [UnitOfMeasure]
- Interval End Date Time [IntervalEndTime]
- Measurement Reference ID [MeasureRefID]
- Service Period End Date [ServPerEndDate]
- Service Period Start Date [ServPerStartDate]
- Therm Factor [ThermFactor]
- Transformer Loss Multiplier [TransLossMultiplier]
- Usage Detail Category [UsageDetailCategory]
- Usage Code [UsageCode]

If providing information at a meter level, each original BillUsage detail contains:

- Beginning Reading [BegRead]
- Meter Multiplier [MeterMultiplier]
- Meter Number [MeterID]
- Meter Role [MeterRole]
- Number of Dials / Digits [NumDialsDigits]
- Power Factor [PowerFactor]
- Pressure Correction Factor [PresCorrFactor]
- Primary Metering Indicator [PrimaryMeter]

In addition to the above detail elements, each original BillUsage interval usage transaction has a interval detail record for each interval, as defined by **Meter Type**, including:

- Interval Date
- Interval Time

Each cancel BillUsage includes **Purpose Code = 'Cancel'**, the UUID trace number to the original transaction, and the same data found in the original BillUsage transaction.

Reissuing cancelled usage is treated as original usage.

D R A F T IR/TEIS Working Paper

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

Sample Paper Transaction

Usage Header	
Usage Date:	20040413
Number:	04132004TR4877
Usage Cross-Reference ID:	04132004MR8392
Sender Name:	Distribute-It Incorporated
Sender Common Code ID:	123456789
Receiver Name:	Sell-It Incorporated
Receiver Entity Common Code ID:	546897321
Total KWH Billed	4,000
Total KW Billed	20
Total KVA Billed	18

Category	Meter #	Service Period Start Date	Service Period End Date	Interval End Time	Actual/ Estimated	Unit of Measure	Quantity
IU	12345678	20040410	20040509	0015	Actual	KW	200
IU	12345678	20040410	20040509	0030	Estimated	KW	

Category	Meter #	Service Period Start Date	Service Period End Date	Actual/ Estimated	Unit of Measure	Quantity
MU	23456789	20040410	20040509	Actual	KWH	200
MU	23456789	20040410	20040509	Estimated	KWH	

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

Data Dictionary

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
1	Beginning Reading [BegRead]	Value specifying beginning reading for the metering period.	C	[M] when ReportType ='METER'		3:Meter
2	Final Indicator [FinalInd]	Indicates whether this is a final bill	M		[Yes, No]	1:Header
3	Sender Common Code ID [SenderID]	Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number) of the party that initiates the transaction.	M			1:Header
4	Sender Name [SenderName]	Name of the trading partner that initiates the transaction.	M			1:Header
5	Customer Account ID [CustAcctID]	Customer Account ID or SDID assigned by the Billing Party	M			1:Header
6	Customer Name [CustName]	End Use Customer Name as defined in Billing Party's systems	M			1:Header
7	Customer Name Overflow [CustNameOver]	Additional information used to further identify the Customer, as defined in Billing Party's systems.	SO			1:Header
8	Non-Billing Party Invoice Due Date [InvoiceDueDate]	The last date invoices will be accepted by the Billing Party for inclusion on the bill	RBC		CBBR only	1:Header
9	Ending/Single Reading [EndSingleRead]	The ending reading or single reading for metering period.	C	[M] when ReportType ='METER'		2:UsageDet
10	Quantity [Quantity]	Usage	M			2:UsageDet
11	Summary Level [SummaryLevel]	Code that defines if the data is summarized by Account, Rate, SDID, Un-metered, or Meter.	M		Account, Rate, SDID, Un-metered, Metered	2:UsageDet
12	Unit of Measure [UnitOfMeasure]	Unit of measure for quantity	M		[kW, kWh, therms, ccf, mcf] Only when line item has a measure	2:UsageDet
	Interval End Date Time [IntervalEndTime]	Timestamp for interval read	C	[M] when ReportType='INTERVAL'		2:UsageDet
13	Measurement Reference ID [MeasureRefID]	Identifies the category to which the measurement applies.	C	[M] when ReportType ='METER'	[Beg / End actual; Beg actual / End estimated; Actual Total; As Billed; Beg est. / End actual; Beg est. / End est.]	2:UsageDet
15	Meter Multiplier [MeterMultiplier]	Represents the number of units that are reflected by one dial or digit increment. Can be multiple multipliers per meter	C	[M] when ReportType='METER' and ServiceType='ELECTRIC'		3:Meter
16	Meter Number [MeterID]	Serial number identifier for a specific meter	RBC		Can have multiple meters.	3:Meter
17	Meter Role [MeterRole]	Code that defines the effect of consumption on summarized total.	C	[M] when Report Type ='METER'	[Subtractive; Additive; Ignore]	3:Meter
18	Receiver ID [ReceiverID]	NBP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
19	Receiver Name [ReceiverName]	Identifies the NBP	M			1:Header
20	Receiver Account ID [ReceiverAcctID]	Customer Account ID assigned by the NBP	RBC		BR: sent if previously received by Non-Billing Party	1:Header
21	Number of Dials / Digits [NumDialsDigits]	Identify the number of meter dials or digits on the meter	C	[M] when Report Type ='METER'	X12 uses dials to left of decimal, digits to right of decimal	3:Meter

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
22	Original UUID [OriginalUUID]	The UUID from the original transaction, used only to cancel the original.	C	[M] when Purpose='Reverse' or 'Cancel'	When a transaction is cancelled, the Original Reference Number is used as a trace number	1:Header
23	Party Calculating Bill [PartyCalculatingBill]	Code that identifies which party calculates the NBP charges	RBC		[Distribution Company, DUAL, Supplier]	1:Header
24	Party Sending Bill [PartySendingBill]	Code that identifies which party sends the bill	RBC		[Distribution Company, DUAL, Supplier]	1:Header
25	Power Factor [PowerFactor]	Relationship between Watts and Volt - Amperes necessary to supply electric load	C	[M] when ReportType= 'METER' and ServiceType= 'ELECTRIC'		3:Meter
26	Pressure Correction Factor [PresCorrFactor]	Corrects for varying delivery pressures	C	[M] when ReportType= 'METER'		3:Meter
27	Primary Metering Indicator [PrimaryMeter]	Indicates the customer has primary metering	RBC		[Yes, No]	3:Meter
28	Purpose [Purpose]	Code that defines the reason for sending this information	M		[Original, Cancellation], Reversal, Reissue??why Reversal, Reissue?	1:Header
29	Usage Unique ID [UUID]	Unique number created by the originator identifying this usage transaction	M			1:Header
30	Report Type Code [ReportType]	Code that defines whether usage is being reported or a meter is being changed.	M		[Account,Meter,Rate,Unmetered]	1:Header
31	Service Period End Date [ServPerEndDate]	Current Meter Reading Date	M			2:UsageDet
32	Service Period Start Date [ServPerStartDate]	Previous Meter Reading Date	M			2:UsageDet
33	Service Type [ServiceType]	Code that defines the type of service rendered	M		[Electric, Gas]	1:Header
34	Therm Factor [ThermFactor]	Converts volumetric meter reading data to therm values	C	[M] when ReportType= 'METER' and ServiceType= 'GAS' and UnitMeasure = 'THERM'		2:UsageDet
35	Transaction Date [TransDate]	Date the transaction was generated	M			1:Header
36	Transformer Loss Multiplier [TransLossMultiplier]	Transformer Loss Multiplier	C	[M] when ReportType= 'METER' and ServiceType= 'ELECTRIC'	When a customer owns a transformer and the transformer loss is not measured by the meter.	2:UsageDet
37	Usage Detail Category [UsageDetailCategory]	Code that defines what type of detailed usage is reported	M		[Sum./Non-Interval, Sum./Interval, Billed/Interval, Billed/Non-Interval, Unmetered Sum.; Meter, ??ERCOT flavors??]	2:UsageDet
38	Usage Code [UsageCode]	Code distinguishes between estimated usage and actual usage	M		[Actual, Estimated]	2:UsageDet

REQ/RGQ Billing and Payment Model Business Practices (RXQ.1.3)

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
FinalInd	Yes	Identifies last usage to be sent by MRE/LDC	F
FinalInd	No		[blank]
SummaryLevel	Account		
SummaryLevel	Rate		
SummaryLevel	SDID		
SummaryLevel	Un-metered		
SummaryLevel	Metered		
UnitOfMeasure	kW	kiloWatt (demand)	K1
UnitOfMeasure	kWh		
UnitOfMeasure	Therms		
UnitOfMeasure	Ccf		
UnitOfMeasure	Mcf		
MeasureRefID	Beg / End Actual	Beginning and Ending reading are actual readings	
MeasureRefID	Beg Actual / End Estimated	Beginning reading is actual reading; Ending reading is an estimate	
MeasureRefID	Actual Total	Total is actual reading	
MeasureRefID	As Billed	As Billed	
MeasureRefID	Beg Estimated / End Actual	Beginning reading is estimated reading; Ending reading is actual	
MeasureRefID	Beg / End Estimated	Beginning and Ending reading are estimated	
MeterRole	Subtractive		
MeterRole	Additive		
MeterRole	Ignore		
Party Calculating Bill	Distribution Co		
Party Calculating Bill	Retailer		
Party Calculating Bill	Dual		
Party Sending Bill	Distribution Co		
Party Sending Bill	Retailer		
Party Sending Bill	Dual		
Primary Meter Indicator	Yes		
Primary Meter Indicator	No		
Purpose	Original		
Purpose	Cancellation		
Report Type Code	Account		
Report Type Code	Meter		
Report Type Code	Unmetered		
Report Type Code	Rate		
Service Type	Electric		
Service Type	Gas		
Usage Detail Category	Summary Non-Interval		
Usage Detail Category	Summary Interval		
Usage Detail Category	Billed Interval		
Usage Detail Category	Summary Unmetered		
Usage Detail Category	Detail Meter		
Usage Code	Actual		
Usage Code	Estimated		

X12 EDI Subtab
Data Element Cross Reference to ASC X12
Sample ASC X12 Transaction
ASC X12 Mapping Guidelines
Transaction Set Tables

4.2 Consolidated Billing Bill-Ready Invoice

TECHNICAL IMPLEMENTATION: INVOICE FOR CONS. BILLING BILL-READY (CBBR) [BKW]

Technical Implementation Of Business Process

The Consolidated Billing Bill-Ready Invoice (INV) transaction is the communication used by the non-billing party to transmit the billing components and amounts charges to the billing party for presentation on the customer's bill. The billing party sends an invoice to the customer that displays both the billing and non-billing parties' charges.

There are two types of Consolidated Bill Ready Billing. LDC Consolidated Bill Ready Billing is where the supplier/retailer calculates their charges and submits them via an electronic transaction to the LDC for presentation on the customer's bill. ESP Consolidated Billing is where the LDC calculates their charges and submits the charges via an electronic transaction to the supplier/retailer for presentation on their bill.

The types of invoice transactions supported by Invoice for Consolidated Billing Bill-Ready in retail energy markets include:

- Monthly Invoices
- Final Invoices
- Cancel and Reversal??IR005 Invoices

In LDC Consolidated Billing the **Sender** of the transaction is either the distribution company or the supplier/retailer The **Receiver** of the transaction is either the distribution company or the supplier/retailer.

In ESP Consolidated Billing the **Sender** of the transaction is either the LDC or a central registration agent.

The **Invoice Number ID (InvID)** identifies the invoice. This is a unique number assigned by the originator of the transaction, either the LDC, the supplier or central registration agent.

The non-billing party will echo back in the Invoice transaction, the **Usage Unique ID (UUID** formerly the Usage Cross-Reference Number) originally sent transmitted with the usage information by the LDC or MRE is echoed in any Invoice transaction (Usage Cross-Reference Number.) This ties the transactions together for involved parties.

Each Invoice Header contains the following:

- **Invoice Date**
- **Invoice ID**
- **Usage Unique ID Number**
- **Purpose**
- **Final Indicator (when applicable)**
- **Billing Party (BP) Name**
- **Billing Party (BP) ID**
- **Non-Billing Party (NBP) Name**
- **Non-Billing Party (NBP ID)**
- **Non-Billing Party Account ID (when applicable)**
- **Customer Name**
- **Customer Account ID or SDID**
- **BP Customer Previous Account Number or SDID**
- **Service Address**

4.2 Consolidated Billing Bill-Ready Invoice

- **Service Type**
- **Party Calculating Bill**
- **Party Sending Bill**
- **Non-Billing Party Rate Code**
- **Non-Billing Party Message to Customer**
- **Service Period Start Date**
- **Service Period End Date**
- **Transaction Date**
- **Non-Billing Party Current Total Charges.**

Each Invoice can have multiple Charge Detail records. Each Invoice Detail contains the following:

- **Charge/Allowance Line Amount**
- **Charge/Allowance Line Category**
- **Charge/Allowance Credit/Debit Code**
- **Charge Allowance Line Description**
- **Charge Allowance Line Quantity**
- **Charge/Allowance Line Summary**
- **Charge/Allowance Line Unit of Measure.**

Each Single Retailer Billing Option (SRBO) Invoice Detail contains

- **Non-Billing Party Charge/Allowance Rate ID**
- **Non-Billing Party Charge/Allowance Rate Class**
- **Non-Billing Party Charge/Allowance Rate Subclass**

Each Invoice can have multiple Tax Detail records. Each Tax Detail contains the following:

- **Taxes**
- **Taxing Entity.**

Each cancel transaction includes **Purpose Code = Cancel, the UUID** trace number from the original Billing Usage transaction, and the same data found in the original Invoice transaction.

Reissuing an invoice is treated as an original invoice.

4.2 Consolidated Billing Bill-Ready Invoice

Sample Paper Transaction

Invoice Header	
Invoice Date:	20040413
Invoice Number:	04132004TR4877
Usage Cross-Reference Number:	04132004MR8392
Invoice Purpose:	Original
Final Invoice Indicator:	No
Billing Party (BP) Name:	Distribute-It Incorporated
BP Entity Common Code ID:	123456789
Non-Billing Party (NBP) Name:	Sell-It Incorporated
NBP Entity Common Code ID:	546897321
BP Customer Name:	John Shoulders
BP Customer Account Identifier or SDID:	8473937UHFTR41304
BP Customer Previous Account Number or SDID:	
Service Type:	Electric
NBP Rate Code:	NBPR1
Service Period Start Date:	20040313
Service Period End Date:	20040412

Line Item Charges and Allowances						
Indicator	**Category**	**Unit**	**Qty**	**Rate**	**Amt**	**Description**
Charge	GEN002	KWh	500	$0.100	$50.00	Current Basic Generation - Consumption
Charge	DMD009	KW	20	$1.000	$20.00	Current Basic Generation - Peak Demand
Charge	LPC001		1	$20.00	$20.00	Late Payment Charge
Allowance	ADJ002		1	$10.00	$10.00	Adjustment to Last Bill
Charge	BAS001		1	$0.750	$0.75	Miscellaneous: Receivables Charge
Total of NBP Line Item Charges:					$79.25	

4.2 Consolidated Billing Bill-Ready Invoice

Data Dictionary

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
1	Final Indicator [FinalInd]	Indicates whether this is a final bill	M		[Yes, No]	1:Header
2	Billing Party ID [BillPtyID]	Billing Party's Entity Common Code Identifier (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
3	Billing Party Name [BillPtyName]	Identifies the Billing Party	M			1:Header
4	Customer Account ID [CustAcctID]	Customer Account ID or SDID assigned by the Billing Party	M			1:Header
5	Customer Name [CustName]	End Use Customer Name as defined in Billing Party's systems	M			1:Header
6	Customer Name Overflow [CustNameOver]	Additional information used to further identify the Customer, as defined in Billing Party's systems.	SO			1:Header
7	Chg/Allow Line Amount [CAAmt]	Dollar amount (credit or debit) for the charge.	M			2:CADetail
8	Chg/Allow Line Category [CACat]	Code for the class of charge	M		[Adjustment, Budget, Late Payment, Miscellaneous, Payment Plan Charge] plus other governing standards codes; see UIG and governing documents for codes	2:CADetail
9	Chg/Allow Line Credit/Debit Code [CADebitCode]	Code that defines if Line Item Charge/ Allowance is an allowance (credit), charge (debit) or no charge to the customer	M		Allowance, Charge, No Charge	2:CADetail
10	Chg/Allow Line Description [CADesc]	Text description for Line Item Charge/Allowance that will print on the customer's bill	RBC		~~kW, kWh, therms, ccf, mcf, late payment charge, non-energy charge~~	2:CADetail
11	Chg/Allow Line Quantity [CAQty]	Usage	M			2:CADetail
12	Chg/Allow Line Summary Level [CASummaryLevel]	Code that defines if the data is summarized by Account, Rate, SDID, Un-metered, or Meter.	M		Account, Rate, SDID, Un-metered, Metered	2:CADetail
13	Chg/Allow Line Unit of Measure [CAUnitOfMeasure]	Unit of measure for quantity	M		[kW, kWh, therms, ccf, mcf] Only when line item has a measure	2:CADetail
15	Non-Billing Party ID [NBPID]	NBP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
16	Non-Billing Party Account ID [NBPAcctID]	Customer Account ID assigned by the NBP	RBC			1:Header
19	Non-Billing Party Current Total Charge [TotalChg]	Sum of all current charges	M			1:Header
20	Non-Billing Party Name [NBPName]	Identifies the NBP	M			1:Header

4.2 Consolidated Billing Bill-Ready Invoice

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
21	Chg/Allow Line Rate Class [CARateClass]	NBP Rate Class	RBC			2:CADetail
22	Chg/Allow Line Rate ID [CARateID]	NBP Rate Code for the charges	RBC			2:CADetail
23	Chg/Allow Line Rate Subclass [CASubClass]	NBP Rate Subclass	RBC			2:CADetail
24	Non-Billing Party Message To Customer [Msg2Cust]	A text message the NBP wants to appear on the customer's bill	RBC			1:Header
25	Original Invoice ID [OriginalInvID]	The unique number assigned to the original document, used only to cancel the original. When a transaction is cancelled, the Original Reference Number is used as a trace number.	C	Send when Purpose is 'Reversal' or 'Cancellation'		1:Header
26	Party Calculating Bill [PartyCalculatingBill]	Code that identifies which party calculates the NBPcharges	RBC		[Distribution Company, DUAL, Supplier]	1:Header
27	Party Sending Bill [PartySendingBill]	Code that identifies which party sends the bill	RBC		[Distribution Company, DUAL, Supplier]	1:Header
33	Purpose [Purpose]	Code that defines the reason for sending this information	M		Original, Cancellation, Reversal, Reissue	1:Header
34	Invoice ID [InvID]	Unique number identifying this transaction and created by the originator of this transaction	M			1:Header
35	Service Address [ServAddr]	Customer's service address that may not be the Customer's Mailing Address	RBC			1:Header
36	Service Period End Date [ServPerEndDate]	Current Meter Reading Date	M			1:Header
37	Service Period Start Date [ServPerStartDate]	Previous Meter Reading Date	M			1:Header
38	Service Type [ServiceType]	Code that defines the type of service rendered	M		[Electric, Gas]	1:Header
39	Taxes [Taxes]	A taxable amount transmitted to the non-taxing Party	RBC			2:TaxCA~~CA~~Detail
	Taxing Entity [TaxEntity]	A code that identifies the taxing entity	RBC			2:TaxDetail
40	Transaction Date [TransDate]	Date the transaction was generated	M			1:Header
~~41~~	~~Usage Code [UsageCode]~~	~~Code distinguishes between estimated usage and actual usage~~	~~M~~	-	~~Actual or estimated~~	2:CADetail
42	Usage Unique ID [UUID]	The cross-reference number originally transmitted with the usage information	M			1:Header

4.2 Consolidated Billing Bill-Ready Invoice

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
FinalInd	Yes	Identifies last bill to be sent	F
FinalInd	No	Left blank??	[blank]
Charge/Allowance Line Credit/Debit Code	Charge	Charge	C
Charge/Allowance Line Credit/Debit Code	No	No Allowance or Charge	N
Charge/AllowanceLine Credit/Debit Code	Allowance	Allowance	A
Charge/Allowance Line Category	See UIG and governing documents for codes~~Energy Charges~~	Energy Charges	See UIG and governing documents for codes
Charge/Allowance Line Unit of Measure Code	Watt	Watt	99
Charge/Allowance Line Unit of Measure Code	kW - Represents potential power load measured at predetermined intervals	kW - Represents potential power load measured at predetermined intervals	K1
Charge/Allowance Line Unit of Measure Code	Kilowatt Hour	Kilowatt Hour	Kh
Charge/Allowance Line Unit of Measure Code	KVAR Kilovolt Amperes Reactive Demand	KVAR Kilovolt Amperes Reactive Demand	K2
Charge/Allowance Line Unit of Measure Code	Kilovolt Amperes Reactive Hour	Kilovolt Amperes Reactive Hour	K3
Charge/Allowance Line Unit of Measure Code	Kilovolt Amperes	Kilovolt Amperes	K4
Charge/Allowance Line Unit of Measure Code	Months	Months	MO
Charge/Allowance Line Unit of Measure Code	Watt	Watt	99
Charge/Allowance Line Unit of Measure Code	Therms	Therms	?
Charge/Allowance Line Unit of Measure Code	British Thermal Units	British Thermal Units	BTU?
Charge/Allowance Line Unit of Measure Code	Hundred Cubic Feet	Hundred Cubic Feet	CCF?
Charge/Allowance Line Unit of Measure Code	Thousand Cubic Feet	Thousand Cubic Feet	MCF?
Party Calculating Bill	Retail Supplier		ESP
Party Calculating Bill	Distribution Company		LDC
Party Sending Bill	Retail Supplier	Supplier bills customer	ESP
Party Sending Bill	Distribution Company	Utility bills customer	LDC
Purpose	Original		00
Purpose	Cancellation		01
Purpose	Duplicate		07
Service Type	Electric		EL
Service Type	Gas		GS?

X12 EDI Subtab

Data Element Cross Reference to ASC X12
Sample ASC X12 Transaction
ASC X12 Mapping Guidelines
Transaction Set Tables

4.3 Consolidated Billing Rate-Ready Invoice

TECHNICAL IMPLEMENTATION: INVOICE FOR CONS. BILLING RATE READY (CBRR) [DR/CINERGY]

Technical Implementation Of Business Process

The Consolidated Billing-Rate Ready transaction is used when billing data is transmitted from the Billing Party to the Non-Billing Party in the form of an invoice that contains individual Customer bill components and their corresponding amounts for both parties.

The Billing Party sends the Consolidated Billing Rate Ready Billing transaction to the Non-Billing Party as notification that a Customer bill has been calculated and rendered.

The **Sender** and **Receiver** of the Consolidated Billing Rate Ready transaction is either a distribution company (LDC) or a supplier / retailer.

The Billing Party is responsible for calculating charges after receipt of usage information from the meter reading enty of non-billing party, and issuing bills to the retail customer on behalf of the Non-Billing Party.

The Consolidated Billing Rate Ready Billing transaction will include a **Usage Unique ID (UUID**; formerly "Cross Reference Number ID' matching the UUID number originally transmitted with the usage information establishing a thread to tie these transactions together for involved parties.

The Consolidated Billing Rate Ready transaction also notifies the Non-Billing Party of data concerning the Customer accounts that it has recently billed on behalf of the Non-Billing Party. Accordingly, the exchange of billing data between the Billing Party and Non Billing Party under this scenario is to have the Billing Party send the Non-Billing Party "after-the-fact information" concerning the Customer accounts that it has recently billed on behalf of the Non-Billing Party.

Each original Consolidated Billing Rate Ready transaction header contains

- **Invoice Date**
- **Invoice Number**
- **Usage Unique ID (UUID)**
- **Invoice Purpose**
- **Billing Final Indicator**
- **Original Invoice Number**
- **Invoice Due Date**
- **Billing Party Name**
- **Billing Party ID**
- **Non-Billing Party Name**
- **Non-Billing Party ID**
- **Billing Party Customer Name**
- **Billing Party Account Identifier or SDID**
- **Billing Party Previous Account Number or SDID**
- **Customer Balance Total**
- **Service Type**
- **Service Period Start Date**
- **Service Period End Date**
- **and Payment Plan Indicator.**

Each original Consolidated Billing Rate Ready transaction detail contains one or more

4.3 Consolidated Billing Rate-Ready Invoice

- Line Item Charges and Allowances
- Service Type
- Summary Level
- Unit of Measure for Quantity
- Usage Category
- Usage Code
- and Rate Codes

Each cancel Consolidated Billing Rate Ready transaction must include an **Invoice Purpose Code = 'Cancel**', the UUID trace number to the original transaction, and the same data found in the original Consolidated Billing Rate Ready.

Rebilling of a cancelled Consolidated Billing Rate Ready transaction is processed as a new original usage Consolidated Billing Rate Ready transaction.

4.3 Consolidated Billing Rate-Ready Invoice

Sample Paper Transaction

Invoice Header	
Invoice Date:	20040413
Invoice Number:	04132004TR4877
Usage Cross-Reference Number:	04132004MR8392
Invoice Purpose:	Original
Billing Final Indicator:	No
Original Invoice Number:	X2004042312345
Invoice Due Date:	20040508
Billing Party (BP) Name:	Distribute-It Incorporated
Billing Party ID:	123456789
Non-Billing Party (NBP) Name:	Sell-It Incorporated
NBP ID:	546897321
BP Customer Name:	John Shoulders
BP Customer Account Identifier or SDID:	8473937UHFTR41304
BP Customer Previous Account Number or SDID:	
Customer Balance Total	$100.00
Service Type:	Electric
Service Period Start Date:	20040313
Service Period End Date:	20040412

Line Item Charges and Allowances						
Indicator	**Category**	**Unit**	**Qty**	**Rate**	**Amt**	**Description**
Charge	GEN002	KWh	500	$0.100	$50.00	Current Basic Generation - Consumption
Charge	DMD009	KW	20	$1.000	$20.00	Current Basic Generation - Peak Demand
Total of NBP Line Item Current Charges:					$79.25	

4.3 Consolidated Billing Rate-Ready Invoice

Data Dictionary

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
1	Billing Cycle [BillCycle]	Cycle number (1-99) on which the bill will be rendered.	RBC			1:Header
2	Final Indicator [FinalInd]	Indicates whether this is a final bill	M		[Yes, No]	1:Header
3	Billing Party ID [BillPtyID]	Billing Party's Entity Common Code Identifier (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
4	Billing Party Name [BillPtyName]	Identifies the Billing Party	M			1:Header
5	Customer Account ID [CustAcctID]	Customer Account ID or SDID assigned by the Billing Party	M			1:Header
6	Customer Name [CustName]	End Use Customer Name as defined in Billing Party's systems	M			1:Header
7	Customer Name Overflow [CustNameOver]	Additional information used to further identify the Customer, as defined in Billing Party's systems.	SO			1:Header
8	Customer Bill Issue Date [CustBillIssueDate]	Date the Customer bill was issued	M			1:Header
9	Chg/Allow Line Amount [CAAmt]	Dollar amount (credit or debit) for the charge.	M			2:CADetail
10	Chg/Allow Line Category [CACat]	Code for the class of charge	M		[Adjustment, Budget, Late Payment, Miscellaneous, Payment Plan Charge] plus other governing standards codes; see UIG and governing documents for codes	2:CADetail
11	Chg/Allow Line Credit/Debit Code [CADebitCode]	Code that defines if Line Item Charge/ Allowance is an allowance (credit), charge (debit) or no charge to the customer	M		Allowance, Charge, No Charge	2:CADetail
12	Chg/Allow Line Description [CADesc]	Text description for Line Item Charge/Allowance that will print on the customer's bill	RBC		~~kW, kWh, therms, ccf, mcf, late payment charge, non-energy charge~~	2:CADetail
13	Chg/Allow Line Quantity [CAQty]	Usage	M			2:CADetail
14	Chg/Allow Line Rate ID [CARate ID]	NBP rate identifier	M		Useful in RR as confirmation of proper NBP rate.	2:CADetail
15	Chg/Allow Line Summary Level [CASummaryLevel]	Code that defines if the data is summarized by Account, Rate, SDID, Un-metered, or Meter.	M		Account, Rate, SDID, Un-metered, Metered	2:CADetail
16	Chg/Allow Line Unit of Measure [CAUnitOfMeasure]	Unit of measure for quantity	M		[kW, kWh, therms, ccf, mcf] Only when line item has a measure	2:CADetail
17	Non-Billing Party Account Balance [NBPAcctBal]	Total NBP Account Balance	RBC			2:Balances
18	Non-Billing Party Balance, as of Last Billing [NBPBalAsOfLast]	Amount due on the previous bill	M			2:Balances
19	Non-Billing Party Balance, Prior to Current Charges [NBPBalPrior]	Also known as NBP Arrears	M			2:Balances
20	Non-Billing Party Account ID [NBPAcctID]	Customer Account ID assigned by the NBP	RBC			1:Header
21	Non-Billing Party Name [NBPName]	Identifies the NBP	M			1:Header
22	Non-Billing Party Message To Customer [Msg2Cust]	NBP billing message as it appeared on the bill to the Customer	RBC			1:Header
23	Total Current Charge [TotalChg]	Total NBP Current Charge	M			1:Header
24	Non-Billing Party ID [NBPID]	NBP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
25	Original Invoice ID [OriginalInvID]	The unique number assigned to the original document, used only to cancel the original. When a transaction is cancelled, the Original Reference Number is used as a trace number.	C	Send when Purpose is 'Reversal' or 'Cancellation'		1:Header
26	Party Calculating Bill [PartyCalculatingBill]	Code that identifies which party calculates the NBPcharges	RBC		[Distribution Company, DUAL, Supplier]	1:Header
27	Party Sending Bill [PartySendingBill]	Code that identifies which party sends the bill	RBC		[Distribution Company, DUAL, Supplier]	1:Header
28	Customer Payment Due Date [CustPayDueDate]	Customer payment due date	M			1:Header
29	Payment Plan Balance As of the Last Billing [PlanAsOfLast]					2:Balances
30	Payment Plan Balance Prior to Current Charges [PlanBalPrior]	Payment Plan balance prior to current charges	C	Send when Payment Plan Indicator is Budget or Payment Plan		2:Balances
31	Payment Plan Indicator [PlanInd]	A code that idenities a type of plan	M		[No, Budget or Payment Plan]	2:Balances
32	Payment Plan Info [PlanInfo]	Text used to inform customer of difference between amounts paid and accrued amount outstanding	C	Send when Payment Plan Indicator is Budget or Payment Plan		2:Balances
33	Purpose [Purpose]	Code that defines the reason for sending this information	M		Original, Cancellation, Reversal, Reissue	1:Header
34	Invoice ID [InvID]	Unique number identifying this transaction and created by the originator of this transaction	M			1:Header
35	Service Period End Date [ServPerEndDate]	Current Meter Reading Date	M			1:Header
36	Service Period Start Date [ServPerStartDate]	Previous Meter Reading Date	M			1:Header
37	Service Type [ServiceType]	Code that defines the type of service rendered	M		[Electric, Gas]	1:Header
38	Transaction Date [TransDate]	Date the transaction was generated	M			1:Header

Use Legend: **M** = Mandatory; **C** = Conditional; **SO=**Sender's Option; BC=Business Conditional; **RBC=R**etail Business Conditional

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4.3 Consolidated Billing Rate-Ready Invoice

Use Legend: **M** = Mandatory; **C** = Conditional; **SO=**Sender's Option; BC=Business Conditional; **RBC=R**etail Business Conditional

4.3 Consolidated Billing Rate-Ready Invoice

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
FinalInd	Yes	Identifies last bill to be sent	F
FinalInd	No	Left blank??	[blank]
Charge/Allowance Line Credit/Debit Code	Charge	Charge	C
Charge/Allowance Line Credit/Debit Code	No	No Allowance or Charge	N
Charge/AllowanceLine Credit/Debit Code	Allowance	Allowance	A
Charge/Allowance Line Category	See UIG and governing documents for codes	Energy Charges	See UIG and governing documents for codes
Charge/Allowance Line Unit of Measure Code	Watt	Watt	99
Charge/Allowance Line Unit of Measure Code	kW ~~- Represents potential power load measured at predetermined intervals~~	kW - Represents potential power load measured at predetermined intervals	K1
Charge/Allowance Line Unit of Measure Code	Kilowatt Hour	Kilowatt Hour	Kh
Charge/Allowance Line Unit of Measure Code	KVAR ~~Kilovolt Amperes Reactive Demand~~	KVAR Kilovolt Amperes Reactive Demand	K2
Charge/Allowance Line Unit of Measure Code	Kilovolt Amperes Reactive Hour	Kilovolt Amperes Reactive Hour	K3
Charge/Allowance Line Unit of Measure Code	Kilovolt Amperes	Kilovolt Amperes	K4
Charge/Allowance Line Unit of Measure Code	Months	Months	MO
Charge/Allowance Line Unit of Measure Code	Watt	Watt	99
Charge/Allowance Line Unit of Measure Code	Therms	Therms	?
Charge/Allowance Line Unit of Measure Code	British Thermal Units	British Thermal Units	BTU?
Charge/Allowance Line Unit of Measure Code	Hundred Cubic Feet	Hundred Cubic Feet	CCF?
Charge/Allowance Line Unit of Measure Code	Thousand Cubic Feet	Thousand Cubic Feet	MCF?
Party Calculating Bill	Retail Supplier		ESP
Party Calculating Bill	Distribution Company		LDC
Party Sending Bill	Retail Supplier	Supplier bills customer	ESP
Party Sending Bill	Distribution Company	Utility bills customer	LDC
Purpose	Original		00
Purpose	Cancellation		01
Purpose	Duplicate		07
Service Type	Electric		EL
Service Type	Gas		GS?

X12 EDI Subtab
Data Element Cross Reference to ASC X12
Sample ASC X12 Transaction
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Transaction Set Tables

4.3 Consolidated Billing Rate-Ready Invoice

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
39	Taxes [Taxes]	A taxable amount transmitted to the non-taxing Party	RBC			2:CADetail
40	Payment Plan Account Balance [PlanAcctBal]	Total Payment Plan Balance	C	Send when Payment Plan Indicator is Budget or Payment Plan		1:Header
~~41~~	~~Usage Code [UsageCode]~~	~~Code distinguishes between estimated usage and actual usage~~	~~M~~	-	~~Actual or estimated~~	~~2:CADetail~~
42	Usage Unique ID [UUID]	The cross-reference number originally transmitted with the usage information	RBC			1:Header

Use Legend: **M** = Mandatory; **C** = Conditional; **SO**=Sender's Option; BC=Business Conditional; **RBC=**Retail Business Conditional

TECHNICAL IMPLEMENTATION: PAYMENT [BKW]

Technical Implementation Of Business Process

The Payment transaction is the communication between companies that itemizes payments made from the party billing the end-use customer to the party that is not billing the end-use customer.

The payment is identified by the **Reference Number ID**.

The payment header includes:

- Billing Party ID [BillPtyID]
- Billing Party Name [BillPtyName]
- Funds Transfer Date [FundsTransferDate]
- Monetary Amount [MonAmt]
- Non-Billing Party ID [NBPID]
- Non-Billing Party Name [NBPName]
- Payment Format Code [PayFormat]
- Payment Method Code [PayMethod]
- Purpose [Purpose]
- Payment Reference ID [PayRefID]
- Transaction Date [TransDate]
- Transaction Handling Code [TransHandling]

The remittance detail includes:

- Adjustment Reason Code [AdjustReason]
- Credit/Debit Indicator [CreditDebitInd]
- Customer Account ID [CustAcctID]
- Customer Payment Posting Date [CustPayPostDate]
- Discount Amount [DiscAmt]
- Money Collected [MoneyCollected]
- Non-Billing Party Account ID [NBPAcctID]
- Payment/Adjustment Type [PayAdjustType]

Sample Paper Transaction

Remittance Header	
Remittance Date:	20040413
Number:	04132004TR4877
Remittance / Payment Cross-Reference Number:	04132004MR8392
Trace Type:	Remittance Only
Payment Method Type	ACH
Settlement Date:	20040413
Billing Party (BP) Name:	Distribute-It Incorporated
BP Entity Common Code ID:	123456789
Non-Billing Party (NBP) Name:	Sell-It Incorporated
NBP Entity Common Code ID:	546897321
Total Monetary Amount Transferred	$100.00

Payment Action Code	BP Cust Acct ID or SDID	Date Posted	Usage Reference Number	Orig Invoice Amount	Disc Amt	Payment Amt	Cred/ Debit Code	Adj Amt	Adj Reason
Payment	123456789012	20040410	200403251234	$100.00	$5.00	$95.00	C		
Payment	12345678123	20040411	200403255678	$100.00			C		
Adjustment			200403265678				D		

4.5 Payments

Data Dictionary

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
1	Adjustment Reason Code [AdjustReason]	Code that specifies the reason for the accounting adjustment	C	Send when Payment/Adjustment Type is "Adjustment"	[Adjustment, Invoice Cancelled, Insufficient Funds, Authorized Return]	2:PayDetail
	Billing Party ID [BillPtyID]	Billing Party's Entity Common Code Identifier (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
2	Billing Party Name [BillPtyName]	Identifies the Billing Party	M			1:Header
3	Credit/Debit Indicator [CreditDebitInd]	Code that indicates whether the amount is positive or negative	M			2:PayDetail
4	Customer Account ID [CustAcctID]	Customer Account ID or SDID assigned by the Billing Party	M			2:PayDetail
5	Customer Payment Posting Date [CustPayPostDate]	The date the customer's payment was posted	M			2:PayDetail
6	Discount Amount [DiscAmt]	The amount of discount the Billing Party is entitled to when assuming receivables	M			2:PayDetail
7	Funds Transfer Date [FundsTransferDate]	The date the Billing Party intends for the transaction to be settled	M			1:Header
8	Monetary Amount [MonAmt]	The positive dollar amount being sent to the NBP. This amount should sum to the individual amounts in detail.	M			1:Header
9	Money Collected [MoneyCollected]	Payments / Credits applied (+/-)	M			2:PayDetail
10	Non-Billing Party ID [NBPID]	NBP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
11	Non-Billing Party Account ID [NBPAcctID]	Customer Account number or SDID assigned by the NBP	RBC			2:PayDetail
12	Non-Billing Party Name [NBPName]	Identifies the NBP	M			1:Header
13	Payment/Adjustment Type [PayAdjustType]	A code to indicate the type of payment or adjustment	M		[Adjustment, Payment on Account]	2:PayDetail
14	Payment Format Code [PayFormat]	Code that defines the payment format to be used	M		CTX; CCD+	1:Header
15	Payment Method Code [PayMethod]	Code that defines the method for transmitting the payment	M		ACH or Check	1:Header
~~16~~	~~Purpose [Purpose]~~	~~Code that defines the reason for sending this information~~	~~M~~	-	~~Original, Cancellation, Reversal, Reissue~~	1:Header
17	Payment Reference ID [PayRefID]	Unique number identifying this transaction and created by the originator of this transaction	M			1:Header
18	Service Type [ServiceType]	Code that defines the type of service rendered	M		[Electric, Gas]	1:Header
19	Transaction Date [TransDate]	Date the transaction was generated	M			1:Header
20	Transaction Handling Code [TransHandling]	A code to identify which type of transaction is being used	M		Remittance only or Remittance and payment together	1:Header

4.5 Payments

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
Payment/Adjustment Code	Adjustment		
Payment/Adjustment Code	Payment on Account		
Payment Format	CTX		
Payment Format	CCD+		
Payment Method	ACH		
Payment Method	Check		
Adjustment Reason Code	Adjustment		
Adjustment Reason Code	Invoice Cancelled		
Adjustment Reason Code	Authorized Return		
Adjustment Reason Code	Insufficient Fund		
Service Type	Electric		
Service Type	Gas		
Transaction Handling Code	Remittance Only		I
Transaction Handling Code	Remittance and Payment		C
Transaction Handling Code	Prenotification	Prenotification of future transfers	P
Transaction Handling Code	Payment Only	Make Payment Only	D
Transaction Handling Code	Handling Party Option	Handling parties option to split payment and remittance	X
Transaction Handling Code	Split Payment and Remittance	Split payment and Remittance	U

X12 EDI Subtab

Data Element Cross Reference to ASC X12
Sample ASC X12 Transaction
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TECHNICAL IMPLEMENTATION: TERMINATION OF BILLING SERVICES [GB]

Technical Implementation Of Business Process

The Termination of Billing Services (TBS) transaction is used when the party providing billing services terminates those billing services for an account. The TBS transmits outstanding Non-Billing Party charges from the Billing Party to the Non-Billing Party.

The **Sender** is the Billing Party; the **Receiver** is the Non-Billing Party.

Each TBS transaction header contains

- **Billing Party ID [BillPtyID]**
- **Billing Party Name [BillPtyName]**
- **Customer Account ID [CustAcctID]**
- **Non-Billing Party ID [NBPID]**
- **Non-Billing Party Name [NBPName]**
- **Non-Billing Party Account ID [NBPAcctID]**
- **Purpose [Purpose]**
- **Termination of Bill Services Unique ID [TOBSID]**
- **Service Type [ServiceType]**
- **Transaction Date [TransDate].**

Each TBS transaction detail contains

- **Write-off Amount**
- **Write-off Date.**

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4.6 Billing Services Termination

Sample Paper Transaction

Termination of Billing Services Header	
Transaction Date:	20040413
TOBS ID:	04132004TR4877
Trans Purpose:	TOBS
Billing Party (BP) Name:	Distribute-It Incorporated
BP Entity Common Code ID:	123456789
Non-Billing Party (NBP) Name:	Sell-It Incorporated
NBP Entity Common Code ID:	546897321
Customer Acct ID:	12345767890
NBP Customer Acct ID:	12345656788
Service Type:	Electric
Balance Returned:	$100.00

4.6 Billing Services Termination

Data Dictionary

Item #	Current BP Data Elem. Name ID	Description	Use	Condition	Comments and Code Value	Group
1	Balance Returned [BalRet]	Amount (+/-) written off by Billing Party	M			1:Header
2	Billing Party ID [BillPtyID]	Billing Party's Entity Common Code Identifier (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
3	Billing Party Name [BillPtyName]	Identifies the Billing Party	M		See governing documents	1:Header
4	Customer Account ID [CustAcctID]	Customer Account ID or SDID assigned by the Billing Party	M			1:Header
5	Non-Billing Party ID [NBPID]	NBP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Header
6	Non-Billing Party Name [NBPName]	Identifies the NBP	M			1:Header
7	Non-Billing Party Account ID [NBPAcctID]	Customer Account ID assigned by the NBP	RBC		BR: sent if previously received by Non-Billing Party	1:Header
8	Purpose [Purpose]	Code that defines the reason for sending this information	M		Original, Cancellation, Reversal, Reissue	1:Header
9	Termination of Bill Services Unique ID [TOBSID]	Unique number identifying this transaction and created by the originator of this transaction	M			1:Header
10	Service Type [ServiceType]	Code that defines the type of service rendered	M		[Electric, Gas]	1:Header
11	Transaction Date [TransDate]	Date the transaction was generated	M			1:Header
12	Balance Returned [BalRet]	Balance amount returned	M			2:Detail
13	Write-off Date	Date charges are written off Billing Party books	M			2:Detail

4.6 Billing Services Termination

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
Purpose	Original		
	Cancellation		
Service Type	Electric		
	Gas		

X12 EDI Subtab

Data Element Cross Reference to ASC X12
Sample ASC X12 Transaction
ASC X12 Mapping Guidelines
Transaction Set Tables

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TECHNICAL IMPLEMENTATION: PAYMENT NOTIFICATION (COLLECTIONS) [GB]

Technical Implementation Of Business Process
Related MBP's: 2.8.1.3, 2.8.1.4, *2.8.1.x10*

The Payment Notification/Collections transaction is used in the 'Assumption of Receivables' scenario to enable Non-Billing Parties to identify accounts that are delinquent. It is the communication of all payments and adjustments made to customer accounts by the Billing Party. A single Payment Notification transaction is sent each day.

The transaction is sent by the **Billing Party**. The transaction is received by the **Non-Billing Party**.

The transaction is identified by the **Collection Unique ID**.

Each original Payment Notice header contains

- **Transaction Purpose**
- **Collection Unique ID**
- **Transaction Date**
- **Total Monetary Amount**
- **Billing Party ID and name**
- **Non-Billing Party ID and name.**

The Payment Notice detail repeats for each payment being reported. Multiple payments for a single customer are allowed. Each original Payment Notice detail contains

- **Customer name and ID**
- **Supplier ID**
- **Service Type**
- **Assigned line number**
- **Transaction reference number for the amount**
- **Payment/Adjustment Indicator.**

Sample Paper Transaction

Payment Notification Header	
Transaction Date:	20040413
Collection Unique ID:	04132004TR4877
Trans Purpose:	Original
Billing Party (BP) Name:	Distribute-It Incorporated
BP Entity Common Code ID:	123456789
Non-Billing Party (NBP) Name:	Sell-It Incorporated
NBP Entity Common Code ID:	546897321
Total Monetary Amount	$190.00
Detail	
Customer Acct ID:	12345767890
NBP Customer Acct ID:	12345656788
Customer Name	John Doe
Service Type:	Electric
Transaction Reference Number	Dkoejdhkk20040511
Payment / Adjustment Flag:	Payment
Payment Level Allocated Amount::	$100.00
Customer Acct ID:	12345767890
NBP Customer Acct ID:	12345656788
Customer Name	John Doe
Service Type:	Electric
Transaction Reference Number	Dkoejdhkk20040514
Payment / Adjustment Flag:	Payment
Payment Level Allocated Amount::	$90.00

Note: this example shows a notification for a single customer, so the Total Monetary Amount is $190.00. In the event other customers are to be reported, the Total Monetary Amount would include those monies associated with the other customers.

4.7 Payment Notification

Data Dictionary

Item	Current BP Data Elem. Name ID	Description	Use	Conditions	Comments	Group
1	Transaction Purpose [TransPurpose]	Purpose of Transaction	M		[Original, Cancel]	0:ColHdr
2	Collection Unique ID [CollectionID]	Unique Number assigned by the originator of this transaction. This should be unique over time.	M			0:ColHdr
3	Transaction Date [CollectionDate]	Date this transaction was created by the sender's application system.	M			0:ColHdr
4	Total Monetary Amount Allocated [TotalAmt]	Total Monetary Amount allocated to the non-billing party; Sum of all detail amounts in this transaction.	M			0:ColHdr
5	Billing Party Name [BillPtyName]	Billing Party's Name	M			1:Biller
6	Billing Party ID [BillPtyID]	BP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:Biller
7	Non-Billing Party Name [NBPName]	Non-Billing Party's Name	M			1:NonBiller
8	Non-Billing Party ID [NBPID]	NBP Entity Common Code ID (DUNS Number or DUNS+4 Number or other mutually-agreed upon number)	M			1:NonBiller
9	Billing Party Acct ID [BillPtyAcctID]	Billing Party Customer Account Number	M			1:CustInfo
10	Non-Billing Party Amount Allocated for Account [NBPAmtAlloc]	Total Monetary Amount allocated for this customer account by the billing party on behalf of the non-billing party or adjustment amount allocated by the billing party on behalf of the non-billing party.	M			1:CustInfo
11	Non-Billing Party Account ID [NBPAcctID]	NBP Customer Account Number	RBC	Send if previously sent		1:CustInfo
12	Billing Party Old Account ID [BillPtyOldAcctID]	Previous Billing Party Account Number	BC	Send if BPAcctID changed in last 45 days		1:CustInfo
13	Transaction Detail ID [TransDtlID]	Unique Number identifying this customer account record.	M			1:ColDtl
14	Type of Adjustment [AdjustType]	Adjustment reason code	C	Send when Payment/Adjustment code indicates Adjustment	[Adjustment, Insufficient Funds, Returned Items]	1:ColDtl
15	Posting Date [PostDate]	Date the payment or adjustment was posted in the billing party's system. Format: CCYYMMDD	M			1:ColDtl
16	Payment Level Allocated Amount [PayLevelAmt]	Individual allocated amount or amounts. If more than one customer payment was posted to this customer account, this will be repeated for each customer payment.	M			1:ColDtl
17	Billing Party Customer Name [BillPtyCustName]	Customer name as it appears on the customer bill.	M			1:CustInfo
18	Payment/Adjustment Indicator	Indicates whether the Payment Level Allocated Amount is a payment or an adjustment	M		[Payment or Adjustment]	
19	Service Type	Indicates the type of energy	M		[Gas or Electric]	

Use Legend: **M** = Mandatory; **C** = Conditional; **SO=**Sender's Option; BC=Business Conditional; **RBC=R**etail Business Conditional

4.7 Payment Notification

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
Purpose	Original		
	Cancellation		
Payment/Adjustment Indicator	Payment		
	Adjustment		
Service Type	Electric		
	Gas		
Type of Adjustment	Adjustment		
	Insufficient Funds		
	Returned Items		

X12 EDI Subtab

Data Element Cross Reference to ASC X12 Sample ASC X12 Transaction

ASC X12 Mapping Guidelines

Transaction Set Tables

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TECHNICAL IMPLEMENTATION: APPLICATION ADVICE [GD]

Technical Implementation Of Business Process

Related MBP's: See Table Below

The Application Advice transaction is the communication between companies that advises trading partners of success or failure in certain business processes. The use of the Application Advice UET enables trading partners to automate processes for common exceptions, and for common notifications. The following retail energy business processes use the Application Advice:

Application Advice Use	MBP References
Invalid Usage – This negative acknowledgement, sent by the party receiving usage, notifies the sender that usage was bad.	2.1.1.me1 (draft)
Invalid Invoice – This negative acknowledgement, sent by the party receiving an invoice, notifies the party that generated the invoice that it was bad.	2.4.1.3 2.4.1.6 2.5.1.me2 (draft) 2.6.1.me3 (draft)
Invoice Missed Bill Window – This negative acknowledgement, sent by the Billing Party, notifies the Non-Billing Party that the invoice was received after the bill window had expired.	2.4.1.7 (revised)
Invoice Success – This positive acknowledgement, sent by the Billing Party, notifies the NBP that their invoice was received and placed on the bill to Customer.	2.4.1.2 2.6.1.me4 (draft)

The UET consists of the following logical groups of data:

- Envelope
- Billing Party
- Non-Billing Party
- Customer
- Advice Details, including rejection information where applicable.

Envelope information contains the **App Advice Action, the App Advice Date, and the App Advice ID.**

Billing Party group contains **Billing Party ID, Billing Party Name, Billing Party Technical Contact.**

Customer group contains **Billing Party Account ID, Billing Party Old Account ID, 1:CustInfo, Customer Name, Non-Billing Party Account ID.**

Non-Billing Party group contains **Non-Billing Party ID, Non-Billing Party Name, Non-Billing Party Technical Contact.**

Application Advice Detail group contains **Bill Due Date, Cross Reference ID, Date Bill Rendered, Outstanding Balance, Rejection Level, Rejection Reason, Rejection Text.**

Sample Paper Transaction

Application Advice Header	
Transaction Date:	20040413
App Advice ID:	04132004TR4877
Action Required:	Do Not Resend
Trans Purpose:	
Billing Party (BP) Name:	Distribute-It Incorporated
BP Entity Common Code ID:	123456789
BP Technical Contact:	John Distribute
BP Technical Contact Phone:	713.111.1111
Non-Billing Party (NBP) Name:	Sell-It Incorporated
NBP Entity Common Code ID:	546897321
Customer Name:	Joe Customer
Customer Acct ID:	12345767890
NBP Customer Acct ID:	12345656788
Service Type:	Electric
Rejection Level:	Entire Transaction Rejected
Transaction Set Rejected:	810
Rejection Code:	MBW
Rejection Description:	Missed Bill Window

4.8 Application Advice

Data Dictionary

Trans	Data Elem. Name [ID]	Description	Use	Condition	Comments and Code Value	Group
1	App Advice Action [AppAdvAction]	Indicates whether the receiver of the AA is expected to resend the transaction or not.	M		[Resend, Do Not Resend, Accept]	0:AAHdr
2	App Advice Date [AppAdvDate]	Date that the data was processed by the sender's application system.	M			0:AAHdr
3	App Advice ID [AppAdvID]	A unique transaction identification number assigned by the originator of this transaction. This number must be unique over time.	M			0:AAHdr
4	Billing Party ID [BillPtyID]	Billing Party's DUNS Number or DUNS+4 Number	M			1:BillPtyName
5	Billing Party Name [BillPtyName]	Billing Party's Name	M			1:BillPtyName
6	Billing Party Technical Contact [BillPtyContact]	Billing Party Contact information (Telephone, Email, Fax) to resolve this particular issue.	RBC	[M] if BP sends transaction		1:BillPtyName
7	Billing Party Account ID [BillPtyAcctID]	Billing Party Customer Account Number	M			1:CustInfo
8	Billing Party Old Account ID [BillPtyOldAcctID]	Previous Billing Party Customer Account Number	RBC			1:CustInfo
9	Customer Name [CustName]	Customer Name as it appears on the Customer's Bill	M			1:CustInfo
10	Non-Billing Party Account ID [NBPAcctID]	Non-Billing Party Customer Account Number	RBC			1:CustInfo
11	Non-Billing Party ID [NBPID]	Non-Billing Party's DUNS Number or DUNS+4 Number	M			1:NBPName
12	Non-Billing Party Name [NBPName]	Non-Billing Party's Name	M			1:NBPName
13	Non-Billing Party Technical Contact [NBPContact]	Non-Billing Party Contact information (Telephone, Email, Fax) to resolve this particular issue.	RBC	[M] if NBP sends transaction		1:NBPName
14	Bill Due Date [BillDueDate]	Date customer payment is due (for Acceptance of a Bill Ready Invoice)	RBC			2:AADtl
15	Cross Reference ID [OrigCrossRefID]	Cross Reference Number from the Invoice or Payment transaction.	M			2:AADtl
16	Date Bill Rendered [BillRendDate]	Date bill was rendered to the customer (for Acceptance of a Bill Ready Invoice)	RBC			2:AADtl
17	Outstanding Balance [OutstandingBal]	Total outstanding balance that printed on bill for non-billing party (for Acceptance of a Bill Ready Invoice)	RBC			2:AADtl
18	Rejection Level [RejLev]	Code indicating rejection level (e.g. entire, partial, accepted).	M		[Entire Transaction Rejected, Part of Transaction Rejected, Entire Transaction Accepted, Item is Rejected	2:AADtl
19	Rejection Reason [RejReason]	Code indicating rejection reason	C	[M] if RejLev indicates reject		2:AADtl
20	Rejection Text [RejText]	Text explaining rejection reason	C	[M] if RejLev indicates reject		2:AADtl
21	Transaction Set [TransSet]	Transaction Set that is being responded to	M		[Usage, Invoice, Payment]	2:AADtl

Use Legend: **M** = Mandatory; **C** = Conditional; **SO=**Sender's Option; BC=Business Conditional; **RBC=R**etail Business Conditional

4.8 Application Advice

Code Values Dictionary

Data Element	Code Description	Code Definition	Code Value
App Advice Action	Resend	[no definition necessary]	82
App Advice Action	Do Not Resend	[no definition necessary]	EV
App Advice Action	Accept	[no definition necessary]	CF
Rejection Level	Entire Transaction Rejected	[no definition necessary]	TR
Rejection Level	Part of Transaction Rejected	[no definition necessary]	TP
Rejection Level	Entire Transaction Accepted	[no definition necessary]	TA
Rejection Level	Item is Rejected	[no definition necessary]	IR
Rejection Reason		Usage Invoice Payment	848
Transaction Set			

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North American Energy Standards Board
1301 Fannin, Suite 2350, Houston, Texas 77002
Phone: (713) 356-0060, Fax: (713) 356-0067, E-mail: naesb@naesb.org
Home Page: www.naesb.org

TO: NAESB Retail Electric Quadrant and Retail Gas Quadrant Technical Electronic Implementation Subcommittee (TEIS) Participants, Wholesale Gas Quadrant Electronic Delivery Method Subcommittee Participants, and Interested Parties

FROM: DeDe Kirby, Meeting/Project Manager

RE: RGQ/REQ TEIS & WGQ EDM Meeting Minutes- April 21, 2005

DATE: April 25, 2005

NORTH AMERICAN ENERGY STANDARDS BOARD
RETAIL ELECTRIC QUADRANT/RETAIL GAS QUADRANT
TECHNICAL ELECTORNIC IMPLEMENTATION SUBCOMMITTEE CONFERENCE CALL
&
WHOLESALE GAS QUADRANT
ELECTRONIC DELIVERY MECHANISM SUBCOMMITTEE
CONFERENCE CALL MEETING
April 21, 2005: 3:00 p.m. to 4:00 p.m. Central
DRAFT MINUTES

1. Welcome & Administration

Mr. Spangler called the meeting to order. Ms. Kirby gave the antitrust advice. Participants introduced themselves. Mr. Spangler explained that the purpose of the meeting was to vote the Internet ET changes, discussed and reviewed at the February 23, 2005 meeting of the WGQ EDM and the RxQ TEIS, on to the RGQ, REQ, and WGQ Executive Committees. The agenda was adopted by consensus. Mr. Jarrett moved to adopt the February 23, 2005 draft minutes. Mr. Rothfuss seconded the motion and the minutes were adopted by consensus.

2. Review of Recommendation containing Internet ET Changes (R04030)

The group reviewed draft Recommendation R04030, located on the NAESB website at http://www.naesb.org/pdf2/req_rgq_teis042105w1.doc. No changes were made.

3. Vote to send R04030 to REQ, RGQ, and WGQ Executive Committees

Mr. Jarrett moved to approve recommendation R04030 and send it to the REQ, RGQ, and WGQ Executive Committees for their consideration. Mr. Rothfuss seconded the motion. The motion passed by consensus. Below are the balanced voting charts:

Wholesale Gas Quadrant
Balanced Voting by Segment Tally

Segment	Votes Cast			Balanced Vote		
	YES	NO	TOTAL	YES	NO	TOTAL
End Users				0	0	0
LDCs				0	0	0
Pipeline				0	0	0
Producer				0	0	0
Services	1		1	1	0	1
Total	1		1	1	0	1

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Retail Electric Quadrant
Balanced Voting by Segment Tally

Segment	Votes Cast			Balanced Vote		
	YES	NO	TOTAL	YES	NO	TOTAL
Distributors	1		1	1	0	1
End Users				0	0	0
Services	2		2	2	0	2
Supplier				0	0	0
				0	0	0
Total	3		3	3	0	3

Retail Gas Quadrant
Balanced Voting by Segment Tally

Segment	Votes Cast			Balanced Vote		
	YES	NO	TOTAL	YES	NO	TOTAL
Distributors				0	0	0
End Users				0	0	0
Services	1		1	1	0	1
Supplier				0	0	0
				0	0	0
Total	1		1	1	0	1

4. Next Steps/Other Business

Mr. Behr stated that the May 26, 2005 RxQ TEIS meeting was cancelled. He added that the next meeting scheduled was June 8, 2005.

5. Possible next meeting information and adjournment

Mr. Jarrett moved to adjourn and Mr. Rothfuss seconded the motion. The meeting was adjourned by consensus at 3:20 p.m. Central.

6. Attendance

Name	Organization
Narg Araju	ERCOT
George Behr	ESG
Mark Jarrett	Southern Co.
DeDe Kirby	NAESB
Denise Rager	NAESB
Dan Rothfuss	Cinergy
Leigh Spangler	Latitude Technologies, Inc.

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Retail Quadrants

TAB 13

2005 Annual Plans

North American Energy Standards Board
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NORTH AMERICAN ENERGY STANDARDS BOARD
2005 ANNUAL PLAN – RETAIL GAS QUADRANT[1]
Approved by the Board of Directors March 3, 2005

	Item Number & Description	Completion[2]	Subcommittee[3] Assignment
1	**Billing & Payment Datasets and Models**		CPS/BPS
	a. Develop the Data Sets for the Billing & Payments MBPs Status: Pending, Discussion Underway	1st Qtr 2005	CPS/BPS
	b. Modify Billing & Payments MBPs pursuant to Request R04034.	1st Qtr 2005	CPS/BPS
	c. Develop the Data Sets for the Billing & Payments MBPs Status: Pending, Discussion Underway	1st Qtr 2005	No action necessary, to be completed by CPS/BPS, pursuant to item 1 (a)
	d. Technical Electronic Implementation Standards – Billing & Payments Status: Pending, Discussion Underway	2nd Qtr 2005	TEIS
2	Market Participant Interactions Develop model practices to support interactions between Distribution Companies and/or registration agents and Suppliers, such as supplier registration processes, governing documents, and roles and obligations of both Distribution Company and/or registration agent and Supplier (e.g. content and framework of governing documents or orders). Status: Trading Partner Agreement Discussion Underway; Otherwise Complete	1st Qtr. 2005	SUIS/BPS
3	Customer Information Develop practices for exchanging customer information necessary for interactions prior to enrollment and billing, i.e., customer authorization procedures identifying types of customer information necessary for pre-enrollment activities, and methodologies for exchanging information.	2nd Qtr. 2005	BPS
4	Customer Enrollment, Switching & Dropping Develop practices for submitting and receiving, processing and fulfilling a customer's request to enroll with or leave a supplier (including suppliers dropping customers) and for maintaining current customer account information, and for notifying affected parties.	4th Qtr. 2005	BPS

[1] As outlined in the NAESB Bylaws, the RGQ will also address requests submitted by members and assigned to the RGQ through the Triage Process.

[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] Assignments are subject to approval of the proposal to restructure the subcommittees.

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Approved by the Board of Directors March 3, 2005

	Item Number & Description	Completion[2]	Subcommittee[3] Assignment
5	Examine Wholesale Gas Quadrant Non-EDM Standards Review NAESB Wholesale Gas Quadrant Non-EDM manuals to determine whether the standards within should be modified and/or adopted for use in the Retail Quadrants.	Ongoing	BPS
	Technical Electronic Implementation Subcommittee[4]		
6	Quadrant EDM Establish the Quadrant specific EDM (QEDM) standards for REQ and RGQ. Status: Pending, Discussion Underway	1st Qtr. 2005	Technical Electronic Implementation
	Provisional Activities		
	Review security standards as may be deemed necessary; Public Key Infrastructure (PKI).		
	"Energy Day" Standard - including assessment of changes to existing NAESB standards.		
	Electronic Customer Billing - Develop practices for the provision electronically of billing information.		
	Future Activities		
	Customer Inquiries Develop procedures for responding to customer inquiries directed to Distributors and/or Suppliers and for notification of the other party.	TBD	
	Supplier Certification Develop practices for Distribution Companies to register/certify new Suppliers when they seek to begin doing business in the Distribution Company's service area.	TBD	
	Program of Standards Maintenance & Fully Staffed Standards Work[5]		
	Business Practice Requests	Ongoing	Assigned by the EC on a request by request basis
	Information Requirements and Technical Mapping of Business Practices	Ongoing	Assigned by

[4] The TEIS is assigned the completion of any technical work forwarded to them by the business development subcommittees ideally one quarter after receipt of forwarded work.

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

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		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
Ongoing Development and Maintenance of Definitions	Ongoing	Glossary Subcommittee

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3	Customer Information Develop practices for exchanging customer information necessary for interactions prior to enrollment and billing, i.e., customer authorization procedures identifying types of customer information necessary for pre-enrollment activities, and methodologies for exchanging information.	2nd Qtr. 2005	BPS
4	Customer Enrollment, Switching & Dropping Develop practices for submitting and receiving, processing and fulfilling a customer's request to enroll with or leave a supplier (including suppliers dropping customers) and for maintaining current customer account information, and for notifying affected parties.	4th Qtr. 2005	BPS

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	"Energy Day" Standard - including assessment of changes to existing NAESB standards.		
	Electronic Customer Billing - Develop practices for the provision electronically of billing information.		
	Future Activities		
	Customer Inquiries Develop procedures for responding to customer inquiries directed to Distributors and/or Suppliers and for notification of the other party.	TBD	
	Supplier Certification Develop practices for Distribution Companies to register/certify new Suppliers when they seek to begin doing business in the Distribution Company's service area.	TBD	
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3	Customer Information Develop practices for exchanging customer information necessary for interactions prior to enrollment and billing, i.e., customer authorization procedures, identifying types of customer information necessary for pre-enrollment activities, and methodologies for exchanging information.	2nd Qtr. 2005	BPS

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4	Customer Enrollment, Switching & Dropping Develop practices for submitting and receiving, processing and fulfilling a customer's request to enroll with or leave a supplier (including suppliers dropping customers) and for maintaining current customer account information, and for notifying affected parties.	4th Qtr. 2005	BPS
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	Future Activities		
	Customer Inquiries Develop procedures for responding to customer inquiries directed to Distributors and/or Suppliers and for notification of the other party.	TBD	
	Supplier Certification Develop practices for Distribution Companies to register/certify new Suppliers when they seek to begin doing business in the Distribution Company's service area.	TBD	
	Retail Meter Data Validation, Editing & Estimating Develop procedures for insuring the integrity and validity of retail customer metering data that is needed by utilities and suppliers for billing, load profiling, settlement, etc. Issues related to unbundled or competitive metering are not to be considered.	TBD	
	Load Profiling Develop practices for using statistical methods to estimate interval consumption by customers who do not have interval meters.	TBD	

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2005 ANNUAL PLAN – RETAIL ELECTRIC QUADRANT[1]
Approved by the Board of Directors March 3, 2005

Item Number & Description	Completion[2]	Assignment[3]
Settlement Process Reconcile energy schedules and energy delivered by suppliers within a given market. Note: will need to be coordinated with the WEQ.	TBD	
Program of Standards Maintenance & Fully Staffed Standards Work[5]		
Business Practice Requests	Ongoing	Assigned by the EC on a request by request basis
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
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5 This work is considered routine maintenance and thus the items are not separately numbered.

Retail Quadrants

TAB 14

- ***Proposed Standards – QEDM***
- ***Comments***

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via email and posting

TO: NAESB Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) Members and Interested Industry Participants
FROM: DeDe Kirby, Meeting/Project Manager
RE: REQ/RGQ Request for Comments
DATE: March 24, 2005

An industry comment period begins today, March 24, 2005 and ends on April 22, 2005 for one RGQ/REQ recommendation:

> Recommendation 2005 REQ/RGQ Annual Plan Item #6 - Preparation of QEDM for REQ/RGQ –
> http://www.naesb.org/pdf2/2005_req_rgq_ap6_rec.doc.

All interested parties, regardless of membership status within NAESB are eligible to submit comments for consideration. The REQ and RGQ Executive Committees will review this recommendation and consider it for vote as NAESB Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) standard on May 11, 2005, and in that consideration will review all submitted comments.

All comments received by the NAESB office by end of business on April 22nd will be posted on the Home Page (http://www.naesb.org/request.asp) and forwarded to the REQ and RGQ EC members for their consideration. If you have difficulty downloading the recommendation, please call the NAESB office at (713) 356-0060. The recommendation is also attached for your convenience.

Best Regards,

DeDe Kirby

cc: Rae McQuade, Executive Director

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NAESB Retail Electric and Retail Gas Quadrant Members as of March 24, 2005

Quadrant	Seg	Organization	Contact
REQ	d	Ameren Services Company	Patrick Eynon
REQ	d	Baltimore Gas & Electric Co.	Ruth Kiselewich Johnny Magwood
REQ	su	Calpine Energy Services, LP	Janet Dixon
REQ	d	Cinergy Services, Inc.	Paul K. Jett
REQ	d	Consolidated Edison Company of NY	Hollis Krieger
REQ	e	Defense Energy Support Center	Lisa Robert
REQ	d	Detroit Edison Company	William J. Newbold, Jr.
REQ	su	Direct Energy Business Services	David Booty
REQ	su	Dominion Retail	William Barkas Richard Zelenko
REQ	d	Dominion Virginia Power	David F. Koogler Mary Edwards
REQ	s	EC Power International	Judy Bailey J. Cade Burks
REQ	su	Electric America	Joseph C. Macek
REQ	s	Electric Reliability Council of Texas (ERCOT)	Sam R. Jones Rob Connell Ray Giuliani
REQ	d	Exelon Energy Delivery	Bill Walsh
REQ	s	Foley & Lardner	Bryan S. Anderson
REQ	d	Georgia Power Company	Ernestine McNair Yvette Camp
REQ	d	Gulf Power Company	Joel Thomas Kilgore Yvette Camp
REQ	d	MidAmerican Energy	James E. Wilson
REQ	d	Mississippi Power Company	Dorman Davis Yvette Camp
REQ	e	Office of Public Advocate, State of Maine	Barbara Alexander
REQ	e	Ohio Consumers Council	Randy Corbin
REQ	e	Pennsylvania Office Of Consumer Advocate	Tanya J. McCloskey Sonny A. Popowsky
REQ	s	PPLSolutions, LLC	James M. Minneman
REQ	d	Public Service Electric & Gas	Terrence Moran

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Quadrant	Seg	Organization	Contact
REQ	su	Reliant Energy Retail Services, LLC	Derek Mauzy
REQ	d	Savannah Electric and Power Company	Osman Bholat
REQ	s	Southern Company Services	Mark S. Jarrett Yvette Camp
REQ	s	Structure Group	Stacey Wood
REQ	su	TXU Energy Retail	Felecia Lokey
REQ	d	Wisconsin Public Service Corporation	William L. Bourbonnais Les Nishida Ken Thiry
RGQ	d	AGL Resources Inc.	Katrina Bond
RGQ	d	Baltimore Gas & Electric Company	Phil Precht
RGQ	su	Center Point Energy Minnegasco	Andrea Newman
RGQ	s	Commerce Energy Group	Greg Lander
RGQ	su	Dominion Retail, Inc.	Richard A. Zollars
RGQ	su	Duke Energy Gas Transmission, LLP	Richard Kruse Marcy L. McCain
RGQ	s	Energy Services Group, Inc.	George Behr
RGQ	su	Exelon Energy	Barb Fatina
RGQ	e	Indiana Office of Utility Consumer Counselor	Matthew Parsell
RGQ	s	International LNG Alliance (Sweet Strategies)	David Sweet
RGQ	d	KeySpan Energy Delivery	Nancy Cianflone
RGQ	s	Latitude Technologies	Leigh Spangler
RGQ	d	National Fuel Gas Distribution Corporation	Mike Novak
RGQ	d	Niagara Mohawk	James Dillon
RGQ	d	Northern Indiana Public Service Company (NiSource Inc.)	Mark T. Maassel
RGQ	e	Northwest Industrial Gas Users	Paula E. Pyron
RGQ	e	Ohio Consumers Council	Bruce M. Hayes
RGQ	e	Pennsylvania Office of Consumer Advocate	Tanya J. McCloskey Stephen Keene
RGQ	d	Peoples Gas System	Rachel Gebhardt

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Quadrant	Seg	Organization	Contact
RGQ	d	Philadelphia Gas Works (APGA billing: Bert Kalisch)	Joe Stengel Craig White
RGQ	d	Public Service Electric & Gas Company	Terrence Moran
RGQ	s	R. J. Rudden Associates, Inc.	Richard J. Rudden John D. Charbonneau Don Sytsma
RGQ	su	Shell Energy Services	Harry Kingerski
RGQ	s	SunGard EnForm Consulting	David F. Pfeifer
RGQ	s	Systrends	Dave Darnell
RGQ	su	UBS Energy LLC	Suzanne Calcagno
RGQ	d	UGI Utilities, Inc.	Paul Szykman
RGQ	d	Union Gas	Greg Tetreault
RGQ	d	Wisconsin Public Service Corporation	William Bourbonnais Glen R. Schwalbach Les Nishida
RGQ	d	Xcel Energy	Don Basler

Segment Legend:

e = End Users
l = LDCs
p = Pipeline
r = Producer
s = Services

RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE
For Quadrant: REQ/RGQ

Requesters: REQ/RGQ Technical Electronic Implementation Subcommittee (TEIS)
Request No.: 2005 REQ/RGQ Annual Plan Item 6
Request Title: Preparation of QEDM for REQ/RGQ

1. RECOMMENDED ACTION:

_X_ Accept as requested
___ Accept as modified below
___ Decline

EFFECT OF EC VOTE TO ACCEPT RECOMMENDED ACTION:

_X_ Change to Existing Practice
___ Status Quo

2. TYPE OF DEVELOPMENT/MAINTENANCE

Per Request:	**Per Recommendation:**
_X_ Initiation	_X_ Initiation
___ Modification	___ Modification
___ Interpretation	___ Interpretation
___ Withdrawal	___ Withdrawal
___ Principle	___ Principle
___ Definition	___ Definition
_X_ Business Practice Standard	_X_ Business Practice Standard
___ Document	___ Document
___ Data Element	___ Data Element
___ Code Value	___ Code Value
___ X12 Implementation Guide	___ X12 Implementation Guide
___ Business Process Documentation	___ Business Process Documentation

3. RECOMMENDATION

SUMMARY:

This recommendation proposes the establishment of quadrant specific EDM standards for the Retail Electric Quadrant and the Retail Gas Quadrant. The REQ/RGQ TEIS working in conjunction with the WGQ Electronic Delivery Mechanism (EDM) Subcommittee, removed essentially all of "Tab 6" of the Version 1.7 WGQ EDM Manual and used it as the basis of the NAESB Internet Electronic Transport (ET) document. The remaining content of the WGQ EDM Manual, that is the subject of this recommendation, has been reviewed and revised for Internet ET conforming changes, content updates, grammatical improvements and overall streamlining of content.

The streamlined content is to be renamed the REQ/RGQ Quadrant Electronic Delivery Manual (QEDM) and be made part of the REQ book zero of standards and the RGQ book zero of standards.

RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE
For Quadrant: REQ/RGQ

Requesters: REQ/RGQ Technical Electronic Implementation Subcommittee (TEIS)
Request No.: 2005 REQ/RGQ Annual Plan Item 6
Request Title: Preparation of QEDM for REQ/RGQ

RECOMMENDED STANDARDS:

See attachment.

4. SUPPORTING DOCUMENTATION

a. Description of Request:

2005 REQ/RGQ Annual Plan Item #6: Establish quadrant specific EDM standards for REQ and RGQ.

b. Description of Recommendation:

Adopt standards as recommended.

c. Business Purpose:

The purpose is to create quadrant specific EDM standards for the REQ and RGQ.

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

See the REQ/RGQ TEIS meeting minutes, work papers, and attachments for supporting documentation, discussion, and voting records at the dates listed below. Please note that the url links for minutes have been provided for each date:

October 15, 2002	http://www.naesb.org/pdf/teis101502fm.pdf
November 4, 2002	http://www.naesb.org/pdf/teis110402fm.pdf
November 19, 2002	http://www.naesb.org/pdf/teis111902fm.pdf
December 5, 2002	http://www.naesb.org/pdf/teis120502fm.pdf
January 16-17, 2003	http://www.naesb.org/pdf/req_teis011603fm.pdf
February 12-14, 2003	http://www.naesb.org/pdf/req_teis021203dm.pdf
March 3-4, 2003	http://www.naesb.org/pdf/req_teis030303dm.pdf
March 5, 2003	http://www.naesb.org/pdf/req_teis030503dm.pdf
April 16, 2003	http://www.naesb.org/pdf/req_teis041603fm.pdf
June 9-10, 2003	http://www.naesb.org/pdf/req_teis060903fm.pdf
August 8, 2003	http://www.naesb.org/pdf/req_teis080803fm.pdf
September 8, 2003	http://www.naesb.org/pdf/req_teis090803fm.pdf
October 14-15, 2003	http://www.naesb.org/pdf/req_teis101403fm.pdf

RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE
For Quadrant: REQ/RGQ

Requesters: **REQ/RGQ Technical Electronic Implementation Subcommittee (TEIS)**
Request No.: **2005 REQ/RGQ Annual Plan Item 6**
Request Title: **Preparation of QEDM for REQ/RGQ**

November 17-18, 2003	http://www.naesb.org/pdf/req_teis111703fm.pdf
December 15, 2003	http://www.naesb.org/pdf/req_teis121503fm.pdf
January 21-22, 2004	http://www.naesb.org/pdf/req_teis012104fm.pdf
March 2-3, 2004	Unavailable at the chairs' (George Behr [RGQ TEIS], Chris Burden [WGQ EDM], Dick Brooks [WGQ EDM], and Leigh Spangler [WGQ EDM]) request
March 16, 2004	http://www.naesb.org/pdf/req_teis031604fm.pdf
March 30, 2004	http://www.naesb.org/pdf/req_teis033004fm.pdf
April 13, 2004	http://www.naesb.org/pdf/req_teis041304fm.doc
April 20, 2004	http://www.naesb.org/pdf/req_teis042004fm.doc
June 29-30, 2004	http://www.naesb.org/pdf/req_rgq_teis062904fm.doc
October 13-14, 2004	http://www.naesb.org/pdf/req_rgq_teis101304fm.doc
November 10, 2004	http://www.naesb.org/pdf2/req_rgq_teis111004fm.doc
January 26, 2005	http://www.naesb.org/pdf2/req_rgq_teis012605fm.doc
February 23, 2005	http://www.naesb.org/pdf2/req_rgq_teis022305dm.doc
February 24, 2005	http://www.naesb.org/pdf2/req_rgq_teis022405dm.doc
March 10, 2005	http://www.naesb.org/pdf2/req_rgq_teis031005dm.doc

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RETAIL GENERAL STANDARDS

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Version 1.0
[Month] [Day] [Year]

RXQ Retail General Standards

The North American Energy Standards Board ("NAESB") disclaims and excludes, and any user of the NAESB standard acknowledges and agrees to NAESB's disclaimer of, any and all warranties, conditions or representations, express or implied, oral or written, with respect to the standard or any part thereof, including any and all implied warranties or conditions of title, non-infringement, merchantability, or fitness or suitability for any particular purpose (whether or not NAESB knows, has reason to know, has been advised, or is otherwise in fact aware of any such purpose), whether alleged to arise by law, by reason of custom or usage in the trade, or by course of dealing. Each user of the standard also agrees that under no circumstances will NAESB be liable for any special, incidental, exemplary, punitive or consequential damages arising out of any use of, or errors or omissions in, the standard.

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For donating significant staff time to coordinate the publication of the ANSI ASC X12 guidelines.

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For support and materials describing the business practices, related data sets, data set organization, data elements and data element formats, implementation guides and mapping.

FORESIGHT CORPORATION
For software used to develop the ANSI ASC X12 transaction sets.

TAB 1 – EXECUTIVE SUMMARY

This North American Energy Standards Board (NAESB) Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) General Standards manual details high-level standards that apply to all REQ/RGQ business practices. General Standards include:

- Glossary
- REQ/RGQ Quadrant-Specific Electronic Delivery Mechanism (QEDM).

Glossary

[Insert Glossary Executive Summary here]

REQ/RGQ Quadrant-Specific Electronic Delivery Mechanism (QEDM).

The QEDM standards establish the framework for the electronic dissemination and communication of information between parties in the North American retail gas and electric marketplaces. Specifically, the Retail Gas Quadrant and Retail Electric Quadrant of the North American Energy Standards Board have standardized several methods of communication that can be implemented by market participants. The methods are:

1. EDI/EDM Transfer - The transfer of EDI files, as defined by the ANSI-based NAESB REQ/RGQ file format standards, transferred via the Internet using the NAESB Internet Electronic Transport (Internet ET) mechanism.

2. FF/EDM Transfer - The transfer of "flat files", as defined by the NAESB REQ/RGQ file format standards, transferred via the Internet using the NAESB Internet ET mechanism.

For each of these areas, this document provides a high-level guide to development, implementation, and testing. This guide is not intended to be a comprehensive, in-depth manual.

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2 – VERSION NOTES

Date	Version	Summary of Change
11/18/04		Created as proof of concept

Internal TEIS notes, to be deleted prior to final version

Issue ID	Description
RXQEDM #001	[resolved, pending approval]
RXQEDM #002	[resolved]
RXQEDM #003	[resolved]
RXQEDM #004	[resolved]
RXQEDM #005	[resolved]
RXQEDM #006	[resolved]
RXQEDM #007	[resolved]Testing needs to be thoroughly reviewed
RXQEDM #008	[resolved]Appendices needs to be thoroughly reviewed
RXQEDM #009	[resolved]FAQ needs to be thoroughly reviewed
RXQEDM #010	[resolved]RXQEDM to Internet ET cross reference needs to be prepared
RXQEDM #011	[resolved]RXQEDM to WGQEDM cross reference needs to be prepared
RXQEDM #012	[resolved]Review by all parties of the ERCOT-proposed changes to the use of 'input-format' and 'content-type'
RXQEDM #013	[resolved]Use of TPA and/or profile needs to be finalized
RXQEDM #014	[resolved]References to Glossary Subcommittee (e.g. business day, TPA)
RXQEDM #015	[resolved]Align definitions with WGQ, Glossary subcommittee (GB)
RXQEDM #016	[resolved]Use of X12 v4010?

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3 – INTRODUCTION

NAESB is a voluntary, non-profit organization comprised of members from all aspects of the energy industry. NAESB's mission is to take the lead in developing and implementing standards across the energy industry to simplify and expand electronic communication, and to streamline business practices. This will lead to a seamless North American energy marketplace, as recognized by its customers, the business community, industry participants and regulatory bodies.

NAESB standards are written as 'minimums'. A trading party may offer to 'exceed the minimum standard' by offering additional functions or features as options, but should not require their use. Such additional features or functions are termed "mutually agreed to" in that if both trading partners agree on the inclusion, the additional feature requirements will be met. However, if either trading party does not agree to the inclusion of additional features, then the partners must allow for transmission and receipt of data using the minimum standards. NAESB defines 'exceed the minimum standard' to mean surpassing the standards without negative impact on contracting and non-contracting parties

All of the standards have been adopted with the anticipation that as the industry evolves and uses the standards, additional and amended NAESB standards will be necessary. Any industry participant seeking additional or amended standards (including principles, definitions, standards, data elements, process descriptions, technical implementation instructions) should submit a request to the NAESB office detailing the change so that the appropriate process may take place to amend the standards.

TAB 1 Executive Summary
Provides a brief outline of this guide and the industry context for its use

TAB 2 Version Notes
Contains notes about the current version and a summary of changes from preceding versions

TAB 3 Introduction
Provides a background statement about NAESB's Mission and the design of this guide

TAB 4 Business Process & Practices
Provides an overview of business processes and NAESB RXQ approved principles, definitions and standards related to this guide

TAB 5 Related Standards
Provides an overview of related standards

TAB 6 Technical Implementation - Internet EDI/EDM and Batch FF/EDM
Provides quadrant specific information related to Internet EDI/EDM and Batch FF/EDM

TAB 7 Testing and Deployment
Provides an overview of the business processes for IP/EDM

TAB 8 Appendices
Appendix A - Reference Guide
Appendix B - Frequently Answered Questions

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Appendix C - Sample Technical Exchange Worksheet
Appendix D - Cross-reference of RXQEDM with WGQ EDM 1.7 and Internet ET 2.0.

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4 – BUSINESS PROCESSES AND PRACTICES

1. Principles

RXQ.0.1.2 There should be a unique Entity Common Code for each Entity name and there should be a unique Entity name for each Entity Common Code.

RXQ.0.1.3 RXQ standards do not pick winners, but rather create an environment where the marketplace can dictate a winner(s).

RXQ.0.1.4 RXQ solutions should be cost effective, simple and economical.

RXQ.0.1.5 RXQ solutions should provide for a seamless marketplace for energy.

RXQ.0.1.6 Electronic communications between parties should be done on a non-discriminatory basis, whether through an agent or directly with any party.

RXQ.0.1.7 Trading Partners should mutually select and use a version of the NAESB RXQ standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to upgrade or adopt later versions of RXQ standards as needed, unless specified otherwise by government agencies.

RXQ.0.1.8 Market participants should post clear and precise business processing rules at a designated site, and/or in writing upon request.

RXQ.0.1.9 For Electronic Delivery Mechanisms (EDM), there should be at least one standard automated computer-to-computer exchange of transactional data for each defined transaction data exchange format.

RXQ.0.1.10 For EDM, transaction content and usage should reasonably correspond to defined data dictionaries regardless of mechanism, e.g. FF/EDM, EDI/EDM, etc.

RXQ.0.1.11 For EDM, automated business processes should use Internet ET.

2. Glossary

RXQ maintains this glossary of definitions as the central location for definitions used throughout all RXQ standards books. These definitions may be echoed in each book for convenience. Where there are discrepancies due to editing or maintenance, definitions in this RXQ.0 Glossary are official.

Glossary Term	Standard	Definition
Applicable Regulatory Authority	RXQ.0.2.1	The state regulatory agency or other local governing body that provides oversight, policy guidance, and direction to any parties involved in the process of providing energy to retail access Customers through regulations and orders.
Assumption of Receivables	RXQ.0.2.2	The payment processing method in which the Billing Party assumes the Non-Billing Party's receivables and sends the Non-Billing Party payment at predetermined intervals for all Non-Billing Party amounts that are billed, payable to the Non-Billing Party, and do not have a status of In Dispute, in accordance with the tariff, Billing Services Agreement or other Governing Document regardless of when (or whether) the Customer pays the Billing Party.
Batch Flat-file	RXQ.0.2.26	The term used within the FF/EDM to describe the automated computer-to-computer transfer of Flat-files.
Bill Ready	RXQ.0.2.2	A Consolidated Billing practice in which the Billing Party receives the calculated charge amount(s) directly from the Non-Billing Party in lieu of the Billing Party calculating it directly from the rate.
Billing Party	RXQ.0.2.3	The party performing billing services for one or more parties.

RXQ Retail General Standards

Billing Services Agreement	RXQ.0.2.4	A legally binding document between the Distribution Company and the Supplier used when one of the parties is performing Consolidated Billing for the other party. Such document sets forth the expectations and responsibilities of each party.
Business Day	RXQ.0.2.5	As defined in the Governing Documents.
Business Rule Change	RXQ.0.2.28	Any change in: A) the presence and/or the acceptable content of a data element sent by the changing party, B) a new business response to an accepted data element received by the changing party; C) a new business response to the acceptable content of a data element received by the changing party; D) a new intended business result.
Consolidated Billing	RXQ.0.2.6	The billing option in which the Distribution Company or Supplier renders a Customer bill consolidating the energy, transmission/transportation and distribution charges of the Distribution Company and the Supplier, for which a single payment from the Customer is expected.
Customer	RXQ.0.2.7	Any entity that takes gas and/or electric service for its own consumption.
Distribution Company	RXQ.0.2.8	A regulated entity which provides distribution services and may provide energy and/or transmission/transportation services in a given area.
Dual Billing	RXQ.0.2.9	The billing option in which the Distribution Company and Supplier render separate Customer bills for the products and services each provides.
EDI/EDM	RXQ.0.2.22	The term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z RXQ standards in the NAESB RXQ Implementation Guides and communicated between trading partners over the Internet using the NAESB Internet ET.
Entity	RXQ.0.2.30	A person or organization with sufficient legal standing to enter into a contract or arrangement with another such person or organization (as such legal standing may be determined by those parties) for the purpose of conducting and/or coordinating energy transactions.
Entity Common Code	RXQ.0.2.31	The DUNS® or DUNS+4 number used as the common company identifier. The DUNS number is a 9-digit number assigned to companies by the Dun & Bradstreet Corporation (D&B). The DUNS+4 number is a 10- to 13-digit number, where characters 10 through 13 are arbitrarily assigned by the owner of the DUNS number. Entity common codes should be 'legal entities,' that is, Ultimate Location, Headquarters Location, and/or Single Location (in D&B terms).
FF/EDM	RXQ.0.2.25	The term used to describe a standardized flat-file electronic data interchange of information in files as mapped from the x.4.z RXQ standards.
Flat-file	RXQ.0.2.24	An RXQEDM Flat-file is an ASCII comma-separated-value (CSV) file with the characteristics as defined in the RXQEDM standards.
Governing Documents	RXQ.0.2.10	Documents that determine the interactions among parties, including but not limited to regulatory documents (e.g., tariffs, rules, regulations), contractual agreements, and Distribution Company operational manuals.
In Dispute	RXQ.0.2.11	A bill status that prevents collection action from being taken on the disputed amount.
Interactive Flat-file	RXQ.0.2.27	The term used within the FF/EDM to describe the transfer of Flat-files using an interactive browser.
Non-Billing Party	RXQ.0.2.12	The party whose charges are being combined into a statement (or invoice) prepared and rendered by another party.
Pay As You Get Paid	RXQ.0.2.13	The payment processing method in which the Billing Party forwards payment to the Non-Billing Party for the Non-Billing Party charges only after receiving payment.
Rate Code	RXQ.0.2.14	A product identifier used in a billing system which contains all information, such as description and price, needed to bill for that product. One or more Rate Codes may be billed on a single account.
Rate Ready	RXQ.0.2.15	Refers to the practice in which the Non-Billing Party provides rate information to the Billing Party sufficient to calculate the Non-Billing Party's charges.
RXQEDM	RXQ.0.2.20	Electric Delivery Mechanism standards for the NAESB RGQ and REQ quadrants that govern package payload file contents, including X12 EDI, Flat-file and other formats.

RXQ Retail General Standards

Service Delivery Point	RXQ.0.2.16	A physical metered and/or unmetered service location supplying energy to a Customer premise.
Single Retail Supplier Billing	RXQ.0.2.17	The billing option in which the Supplier renders a Customer bill for all energy, transmission/transportation, and distribution related charges. The Supplier purchases or otherwise acquires energy, transmission/transportation and distribution services, and therefore all charges on the bill are Supplier charges. A single payment from the Customer is expected.
Supplier	RXQ.0.2.18	Persons engaged in the competitive sale of energy to end-users.
Testing	RXQ.0.2.29	Testing between trading partners includes testing of: (A) intended business results, (B) proposed electronic transport, including security, enveloping, cryptography; and (C) electronic delivery mechanisms (xxx/EDM), including data validity, standards compliance, etc.
Trading Partner	RXQ.0.2.32	A party that enters into an agreement with another party to transact business electronically using NAESB standards.
Trading Partner Agreement (TPA)	RXQ.0.2.21	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include QEDM technical exchange information such as ISA numbers, etc.
Translator	RXQ.0.2.23	A program or set of programs that process the contents of payloads, applying ANSI X12 and other standards, and transforms the information to other formats.
Uniform Electronic Transaction	RXQ.0.2.19	Standard data arrangements for trading information, making business requests and exchanging other information, encompassing a number of electronic media and utilizing specified transport protocols.

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3. Model Business Practices

RXQ.0.3.0.1 Entity common codes should be 'legal entities', that is, Ultimate Location, Headquarters Location, and/or Single Location in Dun & Bradstreet Corporation (D&B) terms. However, in the following situations, a Branch Location, in D&B terms, can also be an entity common code: 1) when contracting party provides a DUNS® number at the Branch Location level; **OR 2)** to accommodate accounting for an entity that is identified at the Branch Location level. 5

RXQ.0.3.2.1 RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles. 6

RXQ.0.3.2.2 All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used. 6

RXQ.0.3.2.3 Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements. 6

RXQ.0.3.2.4 Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response. 6

RXQ.0.3.2.5 RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp. 7

RXQ.0.3.2.6 Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a+/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements 7

RXQ.0.3.2.7 When Internet ET is used, the Internet ET Receipt timestamp supercedes any EDM timestamps with respect to official time the document was received by the Receiver. 7

RXQ.0.3.2.8 When Internet ET is not used, the receipt timestamp is defined by each specific EDM. 7

RXQ.0.3.2.9 RXQEDM 'date' data elements should be formatted as YYYYMMDD. 7

RXQ.0.3.2.10 RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS. 7

RXQ.0.3.2.11 RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH) 7

RXQ.0.3.2.12 Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. 7

RXQ.0.3.2.13 Trading partners should use common codes for legal entities for RXQEDM envelope data elements. 7

RXQ.0.3.2.14 Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee. 7

RXQ.0.3.2.15 To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur. 7

RXQ.0.3.2.16 [??RXQEDM #012]Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment, the 'content-type' header will be set to 'application/consent', and the 'content-ID' header will be set to a mutually-agreeable string identifying the contents of the package. 8

RXQ.0.3.3.1 NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards. 9

RXQ.0.3.3.2 RXQ EDI/EDM standards are X12 compliant. 9

RXQ.0.3.3.3 Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution. 9

RXQ.0.3.3.4 EDI Translators generate the ASC X12 file, including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments. 9

RXQ.0.3.3.5 The ISA is the interchange control segment to be used on all NAESB X12 standards. 9

RXQ.0.3.3.6 The Receiver must send a 997 FA for each X12 file received. 11

RXQ.0.3.3.7 Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of business??RXQEDM #005[GB]-energy day/business day??, as defined by the Receiver, of the receipt of the X12 file. 11

RXQ.0.3.3.8 When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp. 11

RXQ.0.3.3.9 RXQEDM uses X12 Version 4010 ??RXQEDM #016] standards unless otherwise noted. 11

RXQ.0.3.4.1 FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13). 12

RXQ.0.3.4.2 The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data appears in subsequent rows. The data element order is at the option of the sender [??RXQEDM #002] 12

RXQ.0.3.4.3 If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected [??RXQEDM #002]. 12

RXQ.0.3.4.4 Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record. 12

RXQ.0.3.4.5 FF/EDM data elements are separated by commas. 12

RXQ.0.3.4.6 FF/EDM data elements that may contain a comma should be enclosed by double-quotes. 12

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RXQ.0.3.4.7 FF/EDM data elements should not contain double-quotes.....12
RXQ.0.3.4.8 FF/EDM data elements that contain negative numbers should have the minus sign precede the number.....12
RXQ.0.3.4.9 FF/EDM data elements that contain decimal precision should include the decimal point within the data element.....12
RXQ.0.3.4.10 FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element.....12
RXQ.0.3.4.11 FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS.....12
RXQ.0.3.4.12 FF/EDM data elements should be no longer than 256 characters.....12
RXQ.0.3.4.13 FFF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).....13
RXQ.0.3.4.14 FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.....13
RXQ.0.3.4.15 Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM).....13
RXQ.0.3.5.1 When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least thirty (30) days in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such change(s) in the business rule(s), and the scheduled effective date of such change(s).....15
RXQ.0.3.5.2 Trading partners implementing Business Rule Changes should provide testing of change(s) prior to the implementation of the change(s).....15
RXQ.0.3.5.3 Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date.....15
RXQ.0.3.5.4 Trading partners should use dedicated testing systems that mirror production systems.....15

4. Interpretations

NAESB has no interpretations of standards that relate to RXQEDM.

5 – RELATED STANDARDS

INTERNET ELECTRONIC TRANSPORT (ET)

In NAESB business processes, the RXQEDM standards are generally used in conjunction with the Internet ET transport standards.

Related Definitions from Internet ET

These definitions are used in this document. For exact definitions, please refer to the Internet ET standards manual.

[10].2.13 'Electronic Package'. A data stream sent via HTTP POST that contains envelope header information and Payload File(s). The Payload Files are encrypted using defined Internet ET encryption techniques.

[10].2.20 'Internet EDM'. The GISB and NAESB WGQ standards up to and including Version 1.7. 'Internet ET' and 'RXQEDM' standards are derived from these EDM standards.

[10].2.24 'Exchange Failure'. An exchange failure is when a sending party's NAESB Internet ET server has had three or more protocol failures over a period of time no less than thirty minutes and no more than two hours.

[10].2.25 'QEDM'. Quadrant-specific Electronic Delivery Mechanism; the set of standards for each NAESB quadrant that define the EDM standards for EDI, Flat-files, electronic bulletin boards, and other technologies. The QEDM excludes electronic transport practices and standards. The QEDMs were derived from the GISB and NAESB WGQ Internet EDM standards.

[10].2.26 'Receipt'. The HTTP Response sent from the Receiver to the Sender that includes the 'gisb-acknowledge-receipt' section with a timestamp and OK/error status.

[10].2.30 'Technical Exchange Worksheet' or 'TEW'. A document or worksheet used to communicate important information related to the technical implementation of Internet ET; includes information such as URLs, contacts and Public Key policies.

Related Standards from Internet ET

[10].3.5 A timestamp designates the time a file is received at the Receiver's designated site. The timestamp consists of the 'time-c' data element, and in some cases the 'time-c-qualifier' data element. Refer to QEDM standards for use of the 'time-c-qualifier'.

ENTITY COMMON CODE

REQ and RGQ use the DUNS® or DUNS+4 number as the common company identifier for the HTTP Request and Response data dictionary 'to' and 'from' HTTP header elements. The DUNS® number is a 9-digit number assigned to companies by the Dun & Bradstreet Corporation (D&B). The DUNS+4® number is a 10- to 13-digit number, where characters 10 through 13 are arbitrarily assigned by the owner of the DUNS® number.

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For RXQEDM Common Code purposes, an entity will use one and only one DUNS® number. Entity common codes should be 'legal entities,' that is, Ultimate Location, Headquarters Location, and/or Single Location (in D&B terms). However, in the following situations, a Branch Location (in D&B terms) can also be an entity common code:

1. When the contracting party provides a DUNS® number at the Branch Location level.
2. To accommodate accounting for an entity that is identified at the Branch Location level.

Since D&B offers customers the option of carrying more than one DUNS® number per entity, please refer to NAESB's Web Page for directions on determining the one and only one DUNS® number constituting the NAESB Entity Common Code.

RXQ.0.1.2 There should be a unique entity common code for each entity name and there should be a unique entity name for each entity common code.

*RXQ.0.3.0.1 Entity common codes should be 'legal entities', that is, Ultimate Location, Headquarters Location, and/or Single Location in Dun & Bradstreet Corporation (D&B) terms. However, in the following situations, a Branch Location, in D&B terms, can also be an entity common code: 1) when contracting party provides a DUNS® number at the Branch Location level; **OR 2)** to accommodate accounting for an entity that is identified at the Branch Location level.*

TRADING PARTNER AGREEMENT

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

The Trading Partner Agreement (TPA) specifies what functions each party should perform in electronic transactions. The QEDM contains an optional Technical Exchange Worksheet in the appendix that outlines basic QEDM information between trading partners. Additionally, the Internet ET contains an optional Technical Exchange Worksheet that outlines basic connectivity information between trading partners. The specifications in the TPA should be tested before reliance on the production implementation for business transactions.

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6 – TECHNICAL IMPLEMENTATION

A. GENERAL ELECTRONIC DELIVERY MECHANISM

Open Standards

The "open" technology standards selected by NAESB WGQ are designed to provide flexibility and scalability. The business benefits gained from adherence to open standards are:

- Provides the framework to electronically trade with others (e.g., electric utilities, banks, suppliers, retail customers).
- Encourages marketplace development of off-the-shelf software solutions to support NAESB WGQ QEDM.
- Strengthens security and integrity of electronic communication.

Privacy/Authentication/Integrity/Non-repudiation

RXQ.0.3.2.1 RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles.

RXQ.0.3.2.2 All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used.

Audit Trails

RXQ.0.3.2.3 Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements.

Receipt Timestamps

Similar to certified postal mail, many Senders are interested in knowing that their document was received, and at what time the document was received. One aspect of 'non-repudiation' says that the Receiver cannot deny receiving the document.

The use of an electronic receipt provides the Sender with a level of non-repudiation.

The primary timestamp in NAESB standards is the 'time-c' data element found in the 'gisb-acknowledgement-receipt' in Internet ET Responses. When Internet ET is used, this timestamp should serve as the primary timestamp for non-repudiation purposes.

When Internet ET is not used, refer to each EDM for the receipt convention. EDI/EDM uses the date and timestamps in the ISA segment. FF/EDM does not have any current timestamp standards.

RXQ.0.3.2.4 Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response.

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RXQ.0.3.2.5 RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp.

RXQ.0.3.2.6 Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a +/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements.

When Internet ET is used, Internet ET timestamps take precedence over EDM timestamps such as those found in the EDI 997. When Internet ET is not used, other timestamps are defined by the EDM (e.g. EDI/EDM or FF/EDM).

RXQ.0.3.2.7 When Internet ET is used, the Internet ET Receipt timestamp supersedes any EDM timestamps with respect to official time the document was received by the Receiver.

RXQ.0.3.2.8 When Internet ET is not used, the receipt timestamp is defined by each specific EDM.

ISO Date and Time Data Elements

RXQEDM data elements should use the following date and time standards:

RXQ.0.3.2.9 RXQEDM 'date' data elements should be formatted as YYYYMMDD.

RXQ.0.3.2.10 RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS.

RXQ.0.3.2.11 RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH).

Other

RXQ.0.3.2.12 Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text.

RXQ.0.3.2.13 Trading partners should use common codes for legal entities for RXQEDM envelope data elements.

RXQ.0.3.2.14 Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee.

RXQ.0.3.2.15 To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur.

Internet Electronic Transport for Non-NAESB Packages

RXQEDM supports use of Internet ET for transportation of files other than EDI X12 and flat-files.

Examples may include reports, load profiles and PDF files. Current Internet ET standards do not accommodate efficient processing of these formats. The following standard enables receiving companies to efficiently support these conventions, and eliminates NAESB intervention when a new type of file is to be transmitted.

Non-NAESB payloads sent using RXQEDM standards should have the following information in the header:

- Internet ET 'input-format' data element = 'PAYLOAD'. This indicates that the format for the file is found in the MIME payload segment.
- MIME header 'content-type' data element = appropriate MIME content-type.

RXQ.0.3.2.16 Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment and the 'content-type' header will be set to an appropriate MIME content type.

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B. X12 ELECTRONIC DATA INTERCHANGE (EDI/EDM)

ANSI ASC X12 Standards

RXQ standards reflect industry use of the American National Standards Institute (ANSI) ASC X12 standards maintained by the Data Interchange Standards Association, Inc. (DISA).

Parties using RXQ X12 EDI standards should have a copy of the ANSI ASC X12 Standards Reference document for a full understanding of the X12 requirements. NAESB members may purchase an ANSI reference document through NAESB by contacting the NAESB office. Non-NAESB industry participants may purchase the reference document by contacting the Manager of Publications at DISA (www.disa.org, 703.548.7005)

RXQ EDI technical implementation documents are subsets of ANSI ASC X12 standards.

RXQ.0.3.3.1 NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards.

RXQ.0.3.3.2 RXQ EDI/EDM standards are X12 compliant.

RXQ.0.3.3.3 Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution.

ASC X12 architecture is designed for fully-automated and auditable end-to-end communications.

RXQ.0.3.3.4 EDI Translators generate the ASC X12 file, including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments.

These numbers and counts are part of the inner and outer envelopes that allow the translator to ensure that all of the segments and all of the data elements have been received and that the transmission was complete.

ISA Outer Envelope

The ISA segment marks the beginning of an X12 document. It can be equated to an envelope that a paper document would come in via the mail. The envelope may contain one or more 'inner envelope' functional groups (defined by the GS segment) and one or more transaction sets.

RXQ.0.3.3.5 The ISA is the interchange control segment to be used on all NAESB X12 standards.

The ISA segment identifies the sender and receiver of the document. The Interchange Sender ID/Interchange Receiver ID is published by both the sender and receiver for other parties to use as the sender/receiver ID to route data to them. The sender must always code the sender's ID

in the sender element and the designated receiver's ID in the receiver ID.

This sender and receiver information is specified in the Technical Exchange Worksheet (TEW) or a Trading Partner Agreement.

There are additional elements in the ISA segment. These elements are traditionally assigned by the sending party's translator. These elements inform the receiver of the date/time that the envelope was generated, the X12 version number being utilized, whether the transmission is for test or production purposes, and what characters were used to designate the end of a sub element, element or segment.

The ISA also defines characters for the sub element (ISA character 105), element (ISA character 4), and segment delimiters (ISA character 106). These delimiting characters must never appear in the data. The ISA is the only fixed-length X12 segment as it uses specific positions in the segment to identify the delimiter characters. The Technical Exchange Worksheet (TEW) provides a section for parties to define their default delimiters. However, receiving parties should always check the above ISA character positions for EDI/EDM delimiters.

An outer envelope always begins with an ISA segment and ends with an IEA segment.

GS/GE 'Functional Group Header/Trailer' Inner Envelopes

The GS segment indicates the beginning of a functional group and provides control information for the data that follows it. A functional group can be defined as a group of transactions related to one business application. An inner envelope always begins with a GS segment and ends with a GE segment.

An outer envelope may have multiple inner envelopes. For example, within an ISA outer envelope, there may be a GS inner envelope of enrollments and a second GS inner envelope of drops. Each of these inner envelopes is sent within its own GS 'Functional Group Header' and a GE 'Functional Group Trailer'.

The Sender provides the Application Sender's Code that the Receiver will reflect back on acknowledging documents. The Receiver provides the Application Receiver's Code that the Sender will include in the transmission for the Receiver to use in routing to internal applications. Group Control Numbers are originated and maintained by the Sender of the document.

997 'Functional Acknowledgment'

The 997 'Functional Acknowledgment (FA)' transaction set is used to indicate the results of the syntactical analysis of contents of an X12 file, including the ISA/IEA outer envelope, the GS/GE functional groups, and the transaction sets (ST/SE).

The 997 FA standard covers all of the X12 and NAESB standard criteria that the receiver of the document has incorporated into the receiver's translator. The translator may be set to accept all information into the receiver's application processing, it may be set to accept only ANSI ASC X12 compliant information into the receiver's application processing, or it may be set to accept only ANSI ASC X12 and NAESB compliant information into the receiver's application processing. Compliance checking in a translator may be set to any of several levels. NAESB recommends that compliance checking be set to the element level in the Functional Acknowledgement.

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The 997 informs the originator of the transaction whether the translator accepted the file, accepted it with errors, or rejected it. When errors occur, the 997 identifies the location and type of error that was encountered. Once a transaction passes the translator, the 997 is sent to the originator of the transaction and the data (if accepted) is passed on to the receiver's business application for processing.

RXQ.0.3.3.6 The Receiver must send a 997 FA for each X12 file received.

RXQ.0.3.3.7 Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of business, as defined by the Receiver, of the receipt of the X12 file.

The 997 includes a timestamp of when the file was translated.

RXQ.0.3.3.8 When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.

The 4010 version of X12 standards was the Year 2000 compliant-version of the standards. Note that in this standard the ISA date elements only have a 2-digit year format.

RXQ.0.3.3.9 RXQEDM uses X12 Version 4010 standards unless otherwise noted.

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C. FLAT-FILE (FF/EDM)

The FF/EDM provides a common set of guidelines for the exchange of transactions formatted as a Flat-files.

'Flat-file' is a commonly-used description of files that have records of a single record structure. While Flat-files are almost always text files, text files are not always Flat-files. While comma-separated-value (CSV) files are often Flat-files, they can also be of different record structures.

The NAESB FF/EDM standards attempt to make it easy to create Flat-files using a spreadsheet without significant programming.

FF/EDM Standards:

RXQ.0.3.4.1 FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13).

RXQ.0.3.4.2 The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data appears in subsequent rows. The data element order is at the option of the sender.

RXQ.0.3.4.3 If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected.

RXQ.0.3.4.4 Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record.

RXQ.0.3.4.5 FF/EDM data elements are separated by commas.

RXQ.0.3.4.6 FF/EDM data elements that may contain a comma should be enclosed by double-quotes.

RXQ.0.3.4.7 FF/EDM data elements should not contain double-quotes.

RXQ.0.3.4.8 FF/EDM data elements that contain negative numbers should have the minus sign precede the number.

RXQ.0.3.4.9 FF/EDM data elements that contain decimal precision should include the decimal point within the data element.

RXQ.0.3.4.10 FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element.

RXQ.0.3.4.11 FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS.

RXQ.0.3.4.12 FF/EDM data elements should be no longer than 256 characters.

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RXQ.0.3.4.13 FFF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).

RXQ.0.3.4.14 FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.

RXQ.0.3.4.15 Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM).

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D. INTERACTIVE FLAT-FILE (FF/EDM)

No RXQEDM business processes currently use interactive Flat-files.

E. ELECTRONIC BULLETIN BOARD (EBB/EDM)

No RXQEDM business processes currently use electronic bulletin boards.

F. WEB (WEB/EDM)

No RXQEDM business processes currently use web pages.

G. XML (XML/EDM)

No RXQEDM business processes currently use XML.

H. WEB SERVICES (WS/EDM)

No RXQEDM business processes currently use web services.

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7 – TESTING AND DEPLOYMENT

Testing and deployment is necessary any time a party introduces and updates their systems. Each party determines the level of testing required for a given implementation. In some cases Governing Documents dictate testing requirements.

RXQ.0.5.1.1 When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least thirty (30) days in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such change(s) in the business rule(s), and the scheduled effective date of such change(s).

RXQ.0.5.1.2 Trading partners implementing Business Rule Changes should provide testing of change(s) prior to the implementation of the change(s).

RXQ.0.5.1.3 Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date.

RXQ.0.5.1.4 Trading partners should use dedicated testing systems that mirror production systems.

Additional testing requirements can be found in either A) the Internet ET standard, or B) the specific standard for the business process(es) to be implemented.

8 – APPENDICES

APPENDIX A – REFERENCE GUIDE

NAESB

NAESB Web Site: (**Error! Hyperlink reference not valid.**www.naesb.org). Primary reference for energy industry standards.

Time Synchronization

Time synchronization is required to assure that all trading partners' transaction times are accurate. Testing has shown that the clocks on all computer systems drift. 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.

Each NAESB business process may have unique time-synchronization requirements. Refer to the QEDM for time-synchronization standards for target markets. Servers need to be time-synchronized according to the standards needed for the most-restrictive target market: that is, the one with the smallest drift allowance.

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.

An easy way to obtain the current time is from the U. S. Naval Observatory's Web site at 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, including IETF NTP, Internet daytime, nisttime / usnotime.

Further information on time synchronization may be found at the following Web sites:
http://tycho.usno.navy.mil/ntp.html
www.ccd.bnl.gov/xntp

Relevant URL's

MIME Standards
RFC 2045: ftp://ftp.rfc-editor.org/in-notes/rfc2045.txt
RFC 1767: ftp://ftp.rfc-editor.org/in-notes/rfc1767.txt

ASC X12 Standards
www.x12.org

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APPENDIX B – FREQUENTLY ASKED QUESTIONS

Q1: Use of 'time-c-qualifier' across quadrants. We understand that the retail quadrants require the 'time-c-qualifier' for 'gisb-acknowledgement-receipt', while the WGQ does not require this data element. If we participate in multiple quadrants, which standard do we use? 17

Q2: How do RXQ markets use the 'refnum' and 'refnum-orig' data elements? 17

Q3: How does RXQEDM support transporting files that do not conform to NAESB standards (e.g. load profiles, reports, PDF files, etc)? 17

Q4: How does this document relate to the Internet ET standard and the standards developed for specific business processes (e.g. Billing and Payments)? 18

Q1: Use of 'time-c-qualifier' across quadrants. We understand that the retail quadrants require the 'time-c-qualifier' for 'gisb-acknowledgement-receipt', while the WGQ does not require this data element. If we participate in multiple quadrants, which standard do we use?

A: You are required to follow the standards dictated by the quadrant that governs the transaction or business process. For example, if you are executing a WGQ nomination, then you should adhere to WGQ standards, which do not require the 'time-c-qualifier'. If you are executing an REQ enrollment, you need to adhere to the REQ standards, which require 'time-c-qualifier'. Of course, all parties can mutually-agree to use the 'time-c-qualifier' or not.

Q2: How do RXQ markets use the 'refnum' and 'refnum-orig' data elements?

A: First, these data elements are mutually-agreed, so parties must agree to use these data elements.

The first time you send a package, the two refnum data elements (refnum, refnum-orig) should be identical 40-digit or less integers, unique over time in your systems.

If you do not receive your NAESB response, you should resend the package with a new refnum (again unique over time), and with the refnum-orig equal to the original send of the package.

The refnum data element is always unique over time. The refnum-orig always refers to a refnum that was used in a previous send.

Refnum Example

Package Send	refnum	refnum-orig
First send	123467890123456	123467890123456
First resend	223467890123457	123467890123456
Second resend	323467890123458	123467890123456

Q3: How does RXQEDM support transporting files that do not conform to NAESB standards (e.g. load profiles, reports, PDF files, etc)?

A: First, sending files using RXQEDM that do not conform to NAESB RXQEDM standards is supported, though on a mutually-agreed-upon basis. Non-NAESB payloads sent using RXQEDM standards should have the following information in the header:

- Internet ET 'input-format' data element = 'PAYLOAD'. This indicates that the format for the file is found in the MIME payload segment.
- MIME header 'content-type' data element = 'application/consent'. This is the MIME default for 'other' formats.
- MIME header 'content-ID' = [agreed upon name]. This is a text string that defines what type of payload is being sent. For example, ERCOT may send load profile data with this value set to 'ERCOT Load Profile'.

Q4: How does this document relate to the Internet ET standard and the standards developed for specific business processes (e.g. Billing and Payments)?

A: RXQEDM standards are designed to work in concert with the NAESB Internet ET standards, and with each standards book developed by NAESB REQ and RGQ business subcommittees. The table below summarizes the scope of the different documents:

NAESB Standard	Scope	
Internet Electronic Transport ([10].y.z)	TCP/IP, HTTP, HTTP POST SSL Encryption OpenPGP/PGP Encryption/Decryption MIME Internet ET Testing	
REQ/RGQ Quadrant-specific Electronic Delivery Mechanism (RXQEDM) (RXQ.0.y.z)	X12 EDI Conventions Batch Flat-files Interactive Flat-files Electronic Bulletin Board	Informational Postings Web/HTML Web Services XML
Business Process Standards (e.g. Billing, Nominations, etc) (x.3.z)	Data Dictionaries Code Values X12 Transactions Sets (e.g. 810, 820, etc) XML Schemas Business Process Testing	

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APPENDIX D – RXQEDM / INTERNET ET 2.0 CROSS-REFERENCE

RXQ	RXQ Standards/Definitions/Principal/Interpretations	WGQ	WGQ 1.7 Original Standards/Definitions/Principal/Interpretation	ET	Internet ET 2.0
[11].1.1	RXQEDM standards do not pick winners, but rather create an environment where the marketplace can dictate a winner(s) (4.1.2).	4.1.2	The Electronic Delivery Mechanism does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners.	[10].1.1	The Internet Electronic Transport (ET) does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners (4.1.2).
[11].1.2	RXQEDM solutions should be cost effective, simple and economical (4.1.3).	4.1.3	The solutions should be cost effective, simple and economical.	[10].1.2	Internet ET solutions should be cost effective, simple and economical (4.1.3).
[11].1.3	RXQEDM solutions should provide for a seamless marketplace for energy (4.1.4).	4.1.4	The solutions should provide for a seamless marketplace for natural gas.	[11].1.3	Internet ET solutions should provide for a seamless marketplace for energy (4.1.4).
[11].1.4	Electronic communications between parties to the transaction should be done on a non-discriminatory basis, whether through an agent or directly with any party to the transaction (4.1.7).	4.1.7	Electronic communications between parties to the transaction should be done on a nondiscriminatory basis, whether through an agent or directly with any party to the transaction.	[10].1.5	Electronic communications between parties to the transaction should be done on a non-discriminatory basis, whether through an agent or directly with any party to the transaction (4.1.7).
[11].1.5	Trading Partners should mutually select and use a version of the NAESB RXQEDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to upgrade or adopt later versions of RXQEDM standards as needed, unless specified otherwise by government agencies (4.1.39).	4.1.39	Trading Partners should mutually select and utilize a version of the NAESB WGQ EDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the NAESB WGQ EDM standards, as needed, again unless specified otherwise by governmment agencies.	[10].1.10	Trading Partners should mutually select and use a version of the NAESB Internet ET standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the NAESB Internet ET standards, as needed, unless specified otherwise by government agencies (4.1.39).
[11].1.6	Market participants should post clear and precise business processing rules at a designated site, and/or in writing upon request (4.1.9).	4.1.9	Service providers should post clear and precise business processing rules at the designated site, or in writing, upon request.	DOES NOT EXIST	
[11].1.7	There should be at least one standard automated computer-to-computer exchange of transactional data for each defined transaction data exchange format (4.1.10).	4.1.10	There should be at least one standard (computer-to-computer exchange of transactional data) for data exchange format.	DOES NOT EXIST	
[11].1.8	Transaction content and usage should reasonably correspond to defined data dictionaries regardless of mechanism, e.g. FF/EDM, EDI/EDM, etc. (4.1.34x).	4.1.34	For NAESB WGQ FF/EDM, the content and usage of flat files should reasonably correspond to the NAESB WGQ data sets used for NAESB WGQ EDI/EDM.	DOES NOT EXIST	
[11].1.9	Automated business processes should use Internet ET, e.g. FF/EDM, EDI/EDM, etc. (4.1.35).	4.1.35	If NAESB WGQ FF/EDM is implemented, flat files should be exchanged via the NAESB WGQ EDI/EDM site or the Customer Activities Web site.	DOES NOT EXIST	
[11].2.1	'RXQEDM'. Electric Delivery Mechanism standards for the NAESB RGQ and REQ		DOES NOT EXIST		DOES NOT EXIST

APPENDIX C – SAMPLE TECHNICAL EXCHANGE WORKSHEET (TEW)

This appendix recommends data elements that should be exchanged by trading partners when using NAESB standards. These data elements may be included in a technical worksheet profile, or as an exhibit in a TPA.

EDM Specifications	Test	Production
Identify your Entity Common Code / DUNS/DUNS+4 Number		
Will you send X12 EDI/EDM Documents?		
Identify your default EDI/EDM Segment Terminator (character 106 in ISA).		
Identify your default EDI/EDM Data Element Terminator (character 4 in ISA).		
Identify your default EDI/EDM Composite Element Separator (character 105 in ISA).		
Identify your EDI/EDM ISA08/GS08 values.		
Will you send the 'time-c-qualifier' in Receipt? (Y/N)	Y (required by RXQ)	Y (required by RXQ)
Will you send non-NAESB packages ('input-format'='PAYLOAD'; e.g. PDF)?		
List expected 'content-ID' values		

	quadrants that govern package payload file contents, including X12 EDI, Flat-file and other formats.				
[11].2.2	"EDI/EDM". The term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z RXQ standards in the NAESB RXQ Implementation Guides and communicated between trading partners over the Internet using the NAESB Internet ET (4.2.11x).	4.2.11	"NAESB WGQ EDI/EDM" is the term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z NAESB WGQ standards in the NAESB WGQ Implementation Guides and communicated between trading partners over the Internet using the NAESB WGQ Electronic Delivery Mechanism.		DOES NOT EXIST
[11].2.3	"Translator". A program or set of programs that process the contents of payloads, applying ANSI X12 and other standards, and transforms the information to other formats.		DOES NOT EXIST		DOES NOT EXIST
[11].2.4	'Flat-file'. An RXQEDM Flat-file is an ASCII comma-separated-value (CSV) file with the characteristics as defined in the RXQEDM standards.		DOES NOT EXIST		DOES NOT EXIST
[11].2.5	'FF/EDM'. The term used to describe a standardized flat-file electronic data interchange of information in files as mapped from the x.4.z RXQ standards (4.2.12x).	4.2.12	"NAESB WGQ FF/EDM" is the term used to describe a standardized flat file electronic data interchange of information in files as mapped from the x.4.z NAESB WGQ standards. NAESB WGQ FF/EDM is communicated between trading partners over the Internet using the NAESB WGQ Electronic Delivery Mechanism.		DOES NOT EXIST
[11].2.6	'Batch Flat-file'. The term used within the FF/EDM to describe the automated computer-to-computer transfer of Flat-files (4.2.18x).	4.2.18	"Batch Flat File" is the term used within NAESB WGQ FF/EDM to describe the automated computer-to-computer transfer of flat files.		DOES NOT EXIST
[11].2.7	'Interactive Flat-file'. The term used within the FF/EDM to describe the transfer of Flat-files using an interactive browser (4.2.19x).	4.2.19	"Interactive Flat File" is the term used within NAESB WGQ FF/EDM to describe the transfer of flat files using an interactive browser.		DOES NOT EXIST
[11].2.xx	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include QEDM technical exchange information such as ISA numbers, etc. (4.2.26x)	4.2.26	DOES NOT EXIST	[10].2.8	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include technical exchange information such as URLs, et cetera (4.2.26x).
[11].2.xx	'Business Rule Change'. Any change in: A) the presence and/or the acceptable content of a data element sent by the changing party, B) a new business response to an accepted data element received by the changing party; C) a new business response to the acceptable content of a data element received by the changing party; D) a new intended business result. (WGQ EDM cross-reference 4.3.87)	4.3.87	When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business		DOES NOT EXIST

			response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].2.xx	Testing between trading partners includes testing of: (A) intended business results, (B) proposed electronic transport, including security, enveloping, cryptography; and (C) electronic delivery mechanisms (xxx/EDM), including data validity, standards compliance, etc. (4.2.20).	4.2.20	Testing data sets between trading partners includes testing of: 1. intended business results, 2. proposed electronic delivery mechanisms, and 3. related EDI/EDM and, where supported, FF/EDM implementation issues. Testing should include enveloping, security, data validity, and standards compliance (e.g. ANSI X12 and NAESB WGQ EDM Related Standards).	[10].2.1	'Internet ET Testing'. Testing electronic packages between trading partners includes testing of: A) Connectivity; B) Encryption/Decryption; and C) Digital signatures where appropriate (4.2.20).
[11].3.1	RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles.		DOES NOT EXIST		DOES NOT EXIST
[11].3.10	RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.11	RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH) (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour		DOES NOT EXIST

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			format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.12	Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. (4.3.47)	4.3.47	Where they exist for the same business function, flat files and EDI should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. Corresponding Web pages should use data set names, data element names, code value descriptions, abbreviations and message text that correspond to those used in flat files and EDI, where they exist.		DOES NOT EXIST
[11].3.13	Trading partners should use common codes for legal entities for RXQEDM envelope data elements (4.3.56x, 4.3.21??).	4.3.56	The industry should use common codes for location points and legal entities when communicating via EDI/EDM, EBB/EDM and/or FF/EDM. The corresponding common code name should also be used in EBB/EDM.	[10].3.21	Trading partners should use common codes for legal entities for the Internet ET 'to' and 'from' data elements (4.3.56x).
[11].3.14	Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee (4.3.67).	4.3.67	A Transportation Service Provider which determines to provide new services which do not utilize existing transaction sets via NAESB WGQ EBB/EDM, should, prior to implementation, submit a request for standardization to NAESB WGQ including descriptions of the EBB/EDM, EDI/EDM and, as applicable, FF/EDM implementation.		DOES NOT EXIST
[11].3.15	To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur (4.3.86).	4.3.86	To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.		DOES NOT EXIST
[11].3.16	Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment and the 'content-type' header will be set to an appropriate MIME content-type.		DOES NOT EXIST		DOES NOT EXIST
[11].3.2	All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used (4.3.83).	4.3.83	For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.	[10].3.25	Internet ET Servers should use 128-bit Secure Socket Layer (SSL) encryption (4.3.88).
[11].3.20	NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards.		DOES NOT EXIST		DOES NOT EXIST
[11].3.21	RXQ EDI/EDM standards are X12 compliant.		DOES NOT EXIST		DOES NOT EXIST
[11].3.22	Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution.		DOES NOT EXIST		DOES NOT EXIST
[11].3.23	EDI Translators generate the ASC X12 file,		DOES NOT EXIST		DOES NOT EXIST

	including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments.				
[11].3.24	The ISA is the interchange control segment to be used on all NAESB X12 standards.		DOES NOT EXIST		DOES NOT EXIST
[11].3.25	The Receiver must send a 997 FA for each X12 file received.		DOES NOT EXIST		DOES NOT EXIST
[11].3.26	Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of businessas defined by the Receiver, of the receipt of the X12 file.		DOES NOT EXIST		DOES NOT EXIST
[11].3.27	When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.		DOES NOT EXIST		DOES NOT EXIST
[11].3.28	RXQEDM uses X12 Version 4010 standards unless otherwise noted.		DOES NOT EXIST		DOES NOT EXIST
[11].3.3	Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements (4.3.4).	4.3.4	Trading partners should retain transactional data for at least 24 months for audit purposes. This data retention requirement only applies to the ability to recover or regenerate electronic records for a period of two years and does not otherwise modify statutory, regulatory, or contractual record retention requirements.	[10].3.2	Trading partners should retain audit trail data for at least 24 months. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements (4.3.4).
[11].3.4	Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response (4.3.8).	4.3.8	The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by NAESB WGQ.	[10].3.4	The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by NAESB Internet ET (4.3.8).
[11].3.40	FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13) (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.41	The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data	4.3.81	DOES NOT EXIST		DOES NOT EXIST

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	appears in subsequent rows. The data element order is at the option of the sender (4.3.81)				
[11].3.42	If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected(4.3.80)	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.43	Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record (4.3.82).	4.3.82	For NAESB WGQ FF/EDM flat files, each transaction (e.g. nomination) should be contained in a single row.		DOES NOT EXIST
[11].3.44	FF/EDM data elements are separated by commas (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.45	FF/EDM data elements that may contain a comma should be enclosed by double-quotes (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note		DOES NOT EXIST

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			that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.46	FF/EDM data elements should not contain double-quotes (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.47	FF/EDM data elements that contain negative numbers should have the minus sign precede the number (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.48	FF/EDM data elements that contain decimal precision should include the decimal point within the data element (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note		DOES NOT EXIST

			that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.49	FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.5	RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp (4.3.9).	4.3.9	For NAESB WGQ EDI/EDM and FF/EDM, there is a time stamp (HTTP Timestamp) that designates the time that a file is received at the designated site. The receiving party should generate a timestamp upon successful receipt of the complete file and send as an immediate response to the sending party. The timestamp should be generated by Common Gateway Interface (CGI) of the receiving party, prior to further processing by the CGI. GPD-DOES NOT MATCH	[10].3.5 and [10].3.7	A timestamp designates the time a file is received at the Receiver's designated site. The timestamp consists of the 'time-c' data element, and in some cases the 'time-cqualifier' data element. Refer to QEDM standards for use of the 'time-c-qualifier' (4.3.9). and After timestamp generation, the Receiver and sends an immediate HTTP Response to the Sender. The 'gisb-acknowledgement-receipt', which includes the timestamp data element(s), is the primary part of the HTTP Response. (4.3.9)
[11].3.50	FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS (4.3.80)	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS		DOES NOT EXIST

			when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.51	FF/EDM data elements should be no longer than 256 characters (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.52	FF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).		DOES NOT EXIST		DOES NOT EXIST
[11].3.53	FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.	4.3.83	For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.		DOES NOT EXIST
[11].3.54	Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM)	4.3.86	To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.		DOES NOT EXIST
[11].3.6	Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a+/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements (4.3.10x).	4.3.10	The time-stamp should be included in the HTTP response back to the sender of the original HTTP transaction. The server clock generating the time-stamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the sender and receiver.	[10].3.8	The Server clock generating the timestamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as necessary to ensure at minimum +/- 5 second synchronization with an atomic clock. Specific business processes may have tighter synchronization requirements (4.3.10x).
[11].3.60	When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance,		DOES NOT EXIST

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	change(s) in the business rule(s), and the scheduled effective date of such change(s) (4.3.87).		or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].3.61	Trading partners implementing Business Rule Changes should provide testing of change(s) during at least a two-week time period prior to the effective date of the change(s) (4.3.87).	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying		DOES NOT EXIST

			trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].3.62	Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date (4.3.87).	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		DOES NOT EXIST
[11].3.63	Trading partners should use dedicated testing systems that are representative of production systems.		DOES NOT EXIST		DOES NOT EXIST
[11].3.7	When Internet ET is used, the Internet ET Receipt timestamp supercedes any EDM timestamps with respect to official time the document was received by the Receiver.	[11].3.27	When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.		DOES NOT EXIST
[11].3.8	When Internet ET is not used, the receipt timestamp is defined by each specific EDM.		DOES NOT EXIST		DOES NOT EXIST
[11].3.9	RXQEDM 'date' data elements should be formatted as YYYYMMDD (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be		DOES NOT EXIST

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			formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		

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Note: These "standard" should be changed to Model Business Practices since that is the name of the "standards" adopted by the Retail Quadrants. I have tried to catch these references in the beginning of the document, but have not attempted to catch all the necessary changes. I also have a concern about the name of this document and have suggested a more descriptive title below. Finally, my comments reflect changes in the Introduction that reflect prior discussions by the BPS Subcommittee and my views about the proper language for this section.

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RETAIL QUADRANT-SPECIFIC ~~GENERAL STANDARDS~~ ELECTRONIC DELIVERY MECHANISMS

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Special Thanks and Acknowledgments to:

NAESB REQ AND RGQ MEMBER COMPANIES
For donating significant staff time to coordinate the publication of the ANSI ASC X12 guidelines.

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For support and materials describing the business practices, related data sets, data set organization, data elements and data element formats, implementation guides and mapping.

FORESIGHT CORPORATION
For software used to develop the ANSI ASC X12 transaction sets.

TAB 1 – EXECUTIVE SUMMARY

This North American Energy Standards Board (NAESB) Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) General Standards manual details high-level standards that apply to all REQ/RGQ business practices. General Standards include:

- Glossary
- REQ/RGQ Quadrant-Specific Electronic Delivery Mechanism (QEDM).

Glossary

[Insert Glossary Executive Summary here]

REQ/RGQ Quadrant-Specific Electronic Delivery Mechanism (QEDM).

The QEDM standards establish the framework for the electronic dissemination and communication of information between parties in the North American retail gas and electric marketplaces. Specifically, the Retail Gas Quadrant and Retail Electric Quadrant of the North American Energy Standards Board have standardized several methods of communication that can be implemented by market participants. The methods are:

1. EDI/EDM Transfer - The transfer of EDI files, as defined by the ANSI-based NAESB REQ/RGQ file format standards, transferred via the Internet using the NAESB Internet Electronic Transport (Internet ET) mechanism.

2. FF/EDM Transfer - The transfer of "flat files", as defined by the NAESB REQ/RGQ file format standards, transferred via the Internet using the NAESB Internet ET mechanism.

For each of these areas, this document provides a high-level guide to development, implementation, and testing. This guide is not intended to be a comprehensive, in-depth manual.

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2 – VERSION NOTES

Date	Version	Summary of Change
11/18/04		Created as proof of concept

Internal TEIS notes, to be deleted prior to final version

Issue ID	Description
RXQEDM #001	[resolved, pending approval]
RXQEDM #002	[resolved]
RXQEDM #003	[resolved]
RXQEDM #004	[resolved]
RXQEDM #005	[resolved]
RXQEDM #006	[resolved]
RXQEDM #007	[resolved]Testing needs to be thoroughly reviewed
RXQEDM #008	[resolved]Appendices needs to be thoroughly reviewed
RXQEDM #009	[resolved]FAQ needs to be thoroughly reviewed
RXQEDM #010	[resolved]RXQEDM to Internet ET cross reference needs to be prepared
RXQEDM #011	[resolved]RXQEDM to WGQEDM cross reference needs to be prepared
RXQEDM #012	[resolved]Review by all parties of the ERCOT-proposed changes to the use of 'input-format' and 'content-type'
RXQEDM #013	[resolved]Use of TPA and/or profile needs to be finalized
RXQEDM #014	[resolved]References to Glossary Subcommittee (e.g. business day, TPA)
RXQEDM #015	[resolved]Align definitions with WGQ, Glossary subcommittee (GB)
RXQEDM #016	[resolved]Use of X12 v4010?

3 – INTRODUCTION

NAESB is a voluntary, non-profit organization comprised of members from all aspects of the energy industry. Within NAESB, the Retail Electric Quadrant (REQ) and the Retail Gas Quadrant (RGQ) focus on issues impacting the retail sale of energy to end-use customers. REQ/RGQ Model Business Practices are intended to provide guidance to Distribution Companies, Suppliers, and other Market Participants involved in providing competitive energy services to end-use customers. The focus of these Model Business Practices are Electric Delivery Mechanisms (EDMs). ~~NAESB's mission is to take the lead in developing and implementing standards across the energy industry to simplify and expand electronic communication, and to streamline business practices. This will lead to a seamless North American energy marketplace, as recognized by its customers, the business community, industry participants and regulatory bodies.~~

NAESB Model Business Practices are voluntary and do not address policy issues that are the subject of state legislation or regulatory decisions. NAESB Model Business Practices ~~standards~~ are written as 'minimums'. A trading party may offer to 'exceed the minimum MBP~~standard~~' by offering additional functions or features as options, but should not require their use. Such additional features or functions are termed "mutually agreed to" in that if both trading partners agree on the inclusion, the additional feature requirements will be met. However, if either trading party does not agree to the inclusion of additional features, then the partners should~~must~~ allow for transmission and receipt of data using the minimum MBPs~~standards~~. NAESB defines 'exceed the minimum MBP~~standard~~' to mean surpassing the MBPs~~standards~~ without negative impact on contracting and non-contracting parties.

All of the MBPs~~standards~~ have been adopted with the anticipation that as the industry evolves and uses the MBPs~~standards~~, additional and amended NAESB MBPs~~standards~~ will be necessary. Any industry participant seeking additional or amended MBPs~~standards~~ (including principles, definitions, MBPs~~standards~~, data elements, process descriptions, technical implementation instructions) should submit a request to the NAESB office detailing the change so that the appropriate process may take place to amend the MBPs~~standards~~.

TAB 1 Executive Summary
Provides a brief outline of this guide and the industry context for its use

TAB 2 Version Notes
Contains notes about the current version and a summary of changes from preceding versions

TAB 3 Introduction
Provides a background statement about NAESB's Mission and the design of this guide

TAB 4 Business Process & Practices
Provides an overview of business processes and NAESB RXQ approved principles, definitions and ~~standards~~MBPs related to this guide

TAB 5 Related Standards
Provides an overview of related MBPs~~standards~~

TAB 6 Technical Implementation - Internet EDI/EDM and Batch FF/EDM
Provides quadrant specific information related to Internet EDI/EDM and Batch FF/EDM

TAB 7 Testing and Deployment
Provides an overview of the business processes for IP/EDM

TAB 8 Appendices
Appendix A - Reference Guide
Appendix B - Frequently Answered Questions
Appendix C - Sample Technical Exchange Worksheet
Appendix D - Cross-reference of RXQEDM with WGQ EDM 1.7 and Internet ET 2.0.

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4 – BUSINESS PROCESSES AND PRACTICES

1. Principles

RXQ.0.1.2 There should be a unique Entity Common Code for each Entity name and there should be a unique Entity name for each Entity Common Code.

RXQ.0.1.3 RXQ MBPs ~~standards~~ should assist in the development of a market environment that treats all Market Participants equally. ~~do not pick winners, but rather create an environment where the marketplace can dictate a winner(s).~~

RXQ.0.1.4 RXQ solutions should be cost effective, simple and economical.

RXQ.0.1.5 RXQ solutions should provide for a seamless marketplace for energy.

RXQ.0.1.6 Electronic communications between parties should be done on a non-discriminatory basis, whether through an agent or directly with any party.

RXQ.0.1.7 Trading Partners should mutually select and use a version of the NAESB RXQ MBPs~~standards~~ under which to operate, unless specified otherwise by the Applicable Regulatory Authority~~government agencies~~. Trading Partners should also mutually agree to upgrade or adopt later versions of RXQ MBPs~~standards~~ as needed, unless specified otherwise ~~by by the ARA~~government agencies.

RXQ.0.1.8 Trading Partners (Market Participants?)~~Market participants~~ should post clear and precise business processing rules at a designated site, and/or in writing upon request.

RXQ.0.1.9 For Electronic Delivery Mechanisms (EDM), there should be at least one standard automated computer-to-computer exchange of transactional data for each defined transaction data exchange format.

RXQ.0.1.10 For EDM, transaction content and usage should reasonably correspond to defined data dictionaries regardless of mechanism, e.g. FF/EDM, EDI/EDM, etc.

RXQ.0.1.11 For EDM, automated business processes should use Internet ET.

2. Glossary

RXQ maintains this glossary of definitions as the central location for definitions used throughout all RXQ standards books. These definitions may be echoed in each book for convenience. Where there are discrepancies due to editing or maintenance, definitions in this RXQ.0 Glossary are official.

Glossary Term	Standard	Definition
Applicable Regulatory Authority	RXQ.0.2.1	The state regulatory agency or other local governing body that provides oversight, policy guidance, and direction to any parties involved in the process of providing energy to retail access Customers through regulations and orders.
Assumption of Receivables	RXQ.0.2.2	The payment processing method in which the Billing Party assumes the Non-Billing Party's receivables and sends the Non-Billing Party payment at predetermined intervals for all Non-Billing Party amounts that are billed, payable to the Non-Billing Party, and do not have a status of In Dispute, in accordance with the tariff, Billing Services Agreement or other Governing Document regardless of when (or whether) the Customer pays the Billing Party.
Batch Flat-file	RXQ.0.2.26	The term used within the FF/EDM to describe the automated computer-to-computer transfer of Flat-files.
Bill Ready	RXQ.0.2.2	A Consolidated Billing practice in which the Billing Party receives the calculated charge amount(s) directly from the Non-Billing Party in lieu of the Billing Party

RXQ Retail General Standards

		calculating it directly from the rate.
Billing Party	RXQ.0.2.3	The party performing billing services for one or more parties.
Billing Services Agreement	RXQ.0.2.4	A legally binding document between the Distribution Company and the Supplier used when one of the parties is performing Consolidated Billing for the other party. Such document sets forth the expectations and responsibilities of each party.
Business Day	RXQ.0.2.5	As defined in the Governing Documents.
Business Rule Change	RXQ.0.2.28	Any change in: A) the presence and/or the acceptable content of a data element sent by the changing party, B) a new business response to an accepted data element received by the changing party; C) a new business response to the acceptable content of a data element received by the changing party; D) a new intended business result.
Consolidated Billing	RXQ.0.2.6	The billing option in which the Distribution Company or Supplier renders a Customer bill consolidating the energy, transmission/transportation and distribution charges of the Distribution Company and the Supplier, for which a single payment from the Customer is expected.
Customer	RXQ.0.2.7	Any entity that takes gas and/or electric service for its own consumption.
Distribution Company	RXQ.0.2.8	A regulated entity which provides distribution services and may provide energy and/or transmission/transportation services in a given area.
Dual Billing	RXQ.0.2.9	The billing option in which the Distribution Company and Supplier render separate Customer bills for the products and services each provides.
EDI/EDM	RXQ.0.2.22	The term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z RXQ standards in the NAESB RXQ Implementation Guides and communicated between trading partners over the Internet using the NAESB Internet ET.
Entity	RXQ.0.2.30	A person or organization with sufficient legal standing to enter into a contract or arrangement with another such person or organization (as such legal standing may be determined by those parties) for the purpose of conducting and/or coordinating energy transactions.
Entity Common Code	RXQ.0.2.31	The DUNS® or DUNS+4 number used as the common company identifier. The DUNS number is a 9-digit number assigned to companies by the Dun & Bradstreet Corporation (D&B). The DUNS+4 number is a 10- to 13-digit number, where characters 10 through 13 are arbitrarily assigned by the owner of the DUNS number. Entity common codes should be 'legal entities,' that is, Ultimate Location, Headquarters Location, and/or Single Location (in D&B terms).
FF/EDM	RXQ.0.2.25	The term used to describe a standardized flat-file electronic data interchange of information in files as mapped from the x.4.z RXQ standards.
Flat-file	RXQ.0.2.24	An RXQEDM Flat-file is an ASCII comma-separated-value (CSV) file with the characteristics as defined in the RXQEDM standards.
Governing Documents	RXQ.0.2.10	Documents that determine the interactions among parties, including but not limited to regulatory documents (e.g., tariffs, rules, regulations), contractual agreements, and Distribution Company operational manuals.
In Dispute	RXQ.0.2.11	A bill status that prevents collection action from being taken on the disputed amount.
Interactive Flat-file	RXQ.0.2.27	The term used within the FF/EDM to describe the transfer of Flat-files using an interactive browser.
Non-Billing Party	RXQ.0.2.12	The party whose charges are being combined into a statement (or invoice) prepared and rendered by another party.
Pay As You Get Paid	RXQ.0.2.13	The payment processing method in which the Billing Party forwards payment to the Non-Billing Party for the Non-Billing Party charges only after receiving payment.
Rate Code	RXQ.0.2.14	A product identifier used in a billing system which contains all information, such as description and price, needed to bill for that product. One or more Rate Codes may be billed on a single account.
Rate Ready	RXQ.0.2.15	Refers to the practice in which the Non-Billing Party provides rate information to the Billing Party sufficient to calculate the Non-Billing Party's charges.

RXQ Retail General Standards

RXQEDM	RXQ.0.2.20	Electric Delivery Mechanism standards for the NAESB RGQ and REQ quadrants that govern package payload file contents, including X12 EDI, Flat-file and other formats.
Service Delivery Point	RXQ.0.2.16	A physical metered and/or unmetered service location supplying energy to a Customer premise.
Single Retail Supplier Billing	RXQ.0.2.17	The billing option in which the Supplier renders a Customer bill for all energy, transmission/transportation, and distribution related charges. The Supplier purchases or otherwise acquires energy, transmission/transportation and distribution services, and therefore all charges on the bill are Supplier charges. A single payment from the Customer is expected.
Supplier	RXQ.0.2.18	Persons engaged in the competitive sale of energy to end-users.
Testing	RXQ.0.2.29	Testing between trading partners includes testing of: (A) intended business results, (B) proposed electronic transport, including security, enveloping, cryptography; and (C) electronic delivery mechanisms (xxx/EDM), including data validity, standards compliance, etc.
Trading Partner	RXQ.0.2.32	A party that enters into an agreement with another party to transact business electronically using NAESB standards.
Trading Partner Agreement (TPA)	RXQ.0.2.21	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include QEDM technical exchange information such as ISA numbers, etc.
Translator	RXQ.0.2.23	A program or set of programs that process the contents of payloads, applying ANSI X12 and other standards, and transforms the information to other formats.
Uniform Electronic Transaction	RXQ.0.2.19	Standard data arrangements for trading information, making business requests and exchanging other information, encompassing a number of electronic media and utilizing specified transport protocols.

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3. Model Business Practices

RXQ.0.3.0.1 Entity common codes should be 'legal entities', that is, Ultimate Location, Headquarters Location, and/or Single Location in Dun & Bradstreet Corporation (D&B) terms. However, in the following situations, a Branch Location, in D&B terms, can also be an entity common code: 1) when contracting party provides a DUNS® number at the Branch Location level; **OR 2)** to accommodate accounting for an entity that is identified at the Branch Location level. 5

RXQ.0.3.2.1 RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles. 6

RXQ.0.3.2.2 All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used. 6

RXQ.0.3.2.3 Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements. 6

RXQ.0.3.2.4 Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response. 6

RXQ.0.3.2.5 RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp. 7

RXQ.0.3.2.6 Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a+/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements. 7

RXQ.0.3.2.7 When Internet ET is used, the Internet ET Receipt timestamp supercedes any EDM timestamps with respect to official time the document was received by the Receiver. 7

RXQ.0.3.2.8 When Internet ET is not used, the receipt timestamp is defined by each specific EDM. 7

RXQ.0.3.2.9 RXQEDM 'date' data elements should be formatted as YYYYMMDD. 7

RXQ.0.3.2.10 RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS. 7

RXQ.0.3.2.11 RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH). 7

RXQ.0.3.2.12 Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. 7

RXQ.0.3.2.13 Trading partners should use common codes for legal entities for RXQEDM envelope data elements. 7

RXQ.0.3.2.14 Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee. 7

RXQ.0.3.2.15 To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur. 7

RXQ.0.3.2.16 [??RXQEDM #012]Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment, the 'content-type' header will be set to 'application/consent', and the 'content-ID' header will be set to a mutually-agreeable string identifying the contents of the package. 8

RXQ.0.3.3.1 NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards. 9

RXQ.0.3.3.2 RXQ EDI/EDM standards are X12 compliant. 9

RXQ.0.3.3.3 Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution. 9

RXQ.0.3.3.4 EDI Translators generate the ASC X12 file, including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments. 9

RXQ.0.3.3.5 The ISA is the interchange control segment to be used on all NAESB X12 standards. 9

RXQ.0.3.3.6 The Receiver must send a 997 FA for each X12 file received. 11

RXQ.0.3.3.7 Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of business??RXQEDM #005[GB]-energy day/business day??, as defined by the Receiver, of the receipt of the X12 file. 11

RXQ.0.3.3.8 When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp. 11

RXQ.0.3.3.9 RXQEDM uses X12 Version 4010 ??RXQEDM #016] standards unless otherwise noted. 11

RXQ.0.3.4.1 FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13). 12

RXQ.0.3.4.2 The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data appears in subsequent rows. The data element order is at the option of the sender [??RXQEDM #002] 12

RXQ.0.3.4.3 If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected [??RXQEDM #002]. 12

RXQ.0.3.4.4 Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record. 12

RXQ.0.3.4.5 FF/EDM data elements are separated by commas. 12

RXQ.0.3.4.6 FF/EDM data elements that may contain a comma should be enclosed by double-quotes. 12

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RXQ.0.3.4.7 FF/EDM data elements should not contain double-quotes.....12
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RXQ.0.3.4.14 FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.....13
RXQ.0.3.4.15 Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM).....13
RXQ.0.3.5.1 When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least thirty (30) days in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such change(s) in the business rule(s), and the scheduled effective date of such change(s).....15
RXQ.0.3.5.2 Trading partners implementing Business Rule Changes should provide testing of change(s) prior to the implementation of the change(s).....15
RXQ.0.3.5.3 Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date.....15
RXQ.0.3.5.4 Trading partners should use dedicated testing systems that mirror production systems.....15

4. Interpretations

NAESB has no interpretations of standards that relate to RXQEDM.

5 – RELATED MODEL BUSINESS PRACTICES~~STANDARDS~~

INTERNET ELECTRONIC TRANSPORT (ET)

In NAESB business processes, the RXQEDM standards are generally used in conjunction with the Internet ET transport standards.

Related Definitions from Internet ET

These definitions are used in this document. For exact definitions, please refer to the Internet ET standards manual.

[10].2.13 'Electronic Package'. A data stream sent via HTTP POST that contains envelope header information and Payload File(s). The Payload Files are encrypted using defined Internet ET encryption techniques.

[10].2.20 'Internet EDM'. The GISB and NAESB WGQ standards up to and including Version 1.7. 'Internet ET' and 'RXQEDM' standards are derived from these EDM standards.

[10].2.24 'Exchange Failure'. An exchange failure is when a sending party's NAESB Internet ET server has had three or more protocol failures over a period of time no less than thirty minutes and no more than two hours.

[10].2.25 'QEDM'. Quadrant-specific Electronic Delivery Mechanism; the set of standards for each NAESB quadrant that define the EDM standards for EDI, Flat-files, electronic bulletin boards, and other technologies. The QEDM excludes electronic transport practices and standards. The QEDMs were derived from the GISB and NAESB WGQ Internet EDM standards.

[10].2.26 'Receipt'. The HTTP Response sent from the Receiver to the Sender that includes the 'gisb-acknowledge-receipt' section with a timestamp and OK/error status.

[10].2.30 'Technical Exchange Worksheet' or 'TEW'. A document or worksheet used to communicate important information related to the technical implementation of Internet ET; includes information such as URLs, contacts and Public Key policies.

Related Standards from Internet ET

[10].3.5 A timestamp designates the time a file is received at the Receiver's designated site. The timestamp consists of the 'time-c' data element, and in some cases the 'time-c-qualifier' data element. Refer to QEDM standards for use of the 'time-c-qualifier'.

ENTITY COMMON CODE

REQ and RGQ use the DUNS® or DUNS+4 number as the common company identifier for the HTTP Request and Response data dictionary 'to' and 'from' HTTP header elements. The DUNS® number is a 9-digit number assigned to companies by the Dun & Bradstreet Corporation (D&B). The DUNS+4® number is a 10- to 13-digit number, where characters 10 through 13 are arbitrarily assigned by the owner of the DUNS® number.

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For RXQEDM Common Code purposes, an entity will use one and only one DUNS® number. Entity common codes should be 'legal entities,' that is, Ultimate Location, Headquarters Location, and/or Single Location (in D&B terms). However, in the following situations, a Branch Location (in D&B terms) can also be an entity common code:

1. When the contracting party provides a DUNS® number at the Branch Location level.
2. To accommodate accounting for an entity that is identified at the Branch Location level.

Since D&B offers customers the option of carrying more than one DUNS® number per entity, please refer to NAESB's Web Page for directions on determining the one and only one DUNS® number constituting the NAESB Entity Common Code.

RXQ.0.1.2 There should be a unique entity common code for each entity name and there should be a unique entity name for each entity common code.

*RXQ.0.3.0.1 Entity common codes should be 'legal entities', that is, Ultimate Location, Headquarters Location, and/or Single Location in Dun & Bradstreet Corporation (D&B) terms. However, in the following situations, a Branch Location, in D&B terms, can also be an entity common code: 1) when contracting party provides a DUNS® number at the Branch Location level; **OR 2)** to accommodate accounting for an entity that is identified at the Branch Location level.*

TRADING PARTNER AGREEMENT

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

The Trading Partner Agreement (TPA) specifies what functions each party should perform in electronic transactions. The QEDM contains an optional Technical Exchange Worksheet in the appendix that outlines basic QEDM information between trading partners. Additionally, the Internet ET contains an optional Technical Exchange Worksheet that outlines basic connectivity information between trading partners. The specifications in the TPA should be tested before reliance on the production implementation for business transactions.

6 – TECHNICAL IMPLEMENTATION

A. GENERAL ELECTRONIC DELIVERY MECHANISM

Open Standards

The "open" technology standards selected by NAESB ~~WGQ~~ are designed to provide flexibility and scalability. The business benefits gained from adherence to open standards are:

- Provides the framework to electronically trade with others (e.g., electric utilities, banks, suppliers, retail customers).
- Encourages marketplace development of off-the-shelf software solutions to support NAESB WGQ QEDM.
- Strengthens security and integrity of electronic communication.

Privacy/Authentication/Integrity/Non-repudiation

RXQ.0.3.2.1 RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles.

RXQ.0.3.2.2 All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used.

Audit Trails

RXQ.0.3.2.3 Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements.

Receipt Timestamps

Similar to certified postal mail, many Senders are interested in knowing that their document was received, and at what time the document was received. One aspect of 'non-repudiation' says that the Receiver cannot deny receiving the document.

The use of an electronic receipt provides the Sender with a level of non-repudiation.

The primary timestamp in NAESB standards is the 'time-c' data element found in the 'gisb-acknowledgement-receipt' in Internet ET Responses. When Internet ET is used, this timestamp should serve as the primary timestamp for non-repudiation purposes.

When Internet ET is not used, refer to each EDM for the receipt convention. EDI/EDM uses the date and timestamps in the ISA segment. FF/EDM does not have any current timestamp standards.

RXQ.0.3.2.4 Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response.

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RXQ.0.3.2.5 RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp.

RXQ.0.3.2.6 Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a +/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements.

When Internet ET is used, Internet ET timestamps take precedence over EDM timestamps such as those found in the EDI 997. When Internet ET is not used, other timestamps are defined by the EDM (e.g. EDI/EDM or FF/EDM).

RXQ.0.3.2.7 When Internet ET is used, the Internet ET Receipt timestamp supersedes any EDM timestamps with respect to official time the document was received by the Receiver.

RXQ.0.3.2.8 When Internet ET is not used, the receipt timestamp is defined by each specific EDM.

ISO Date and Time Data Elements

RXQEDM data elements should use the following date and time standards:

RXQ.0.3.2.9 RXQEDM 'date' data elements should be formatted as YYYYMMDD.

RXQ.0.3.2.10 RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS.

RXQ.0.3.2.11 RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH).

Other

RXQ.0.3.2.12 Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text.

RXQ.0.3.2.13 Trading partners should use common codes for legal entities for RXQEDM envelope data elements.

RXQ.0.3.2.14 Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee.

RXQ.0.3.2.15 To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur.

Internet Electronic Transport for Non-NAESB Packages

RXQEDM supports use of Internet ET for transportation of files other than EDI X12 and flat-files.

Examples may include reports, load profiles and PDF files. Current Internet ET standards do not accommodate efficient processing of these formats. The following standard enables receiving companies to efficiently support these conventions, and eliminates NAESB intervention when a new type of file is to be transmitted.

Non-NAESB payloads sent using RXQEDM standards should have the following information in the header:

- Internet ET 'input-format' data element = 'PAYLOAD'. This indicates that the format for the file is found in the MIME payload segment.
- MIME header 'content-type' data element = appropriate MIME content-type.

RXQ.0.3.2.16 Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment and the 'content-type' header will be set to an appropriate MIME content type.

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B. X12 ELECTRONIC DATA INTERCHANGE (EDI/EDM)

ANSI ASC X12 Standards

RXQ standards reflect industry use of the American National Standards Institute (ANSI) ASC X12 standards maintained by the Data Interchange Standards Association, Inc. (DISA).

Parties using RXQ X12 EDI standards should have a copy of the ANSI ASC X12 Standards Reference document for a full understanding of the X12 requirements. NAESB members may purchase an ANSI reference document through NAESB by contacting the NAESB office. Non-NAESB industry participants may purchase the reference document by contacting the Manager of Publications at DISA (www.disa.org, 703.548.7005)

RXQ EDI technical implementation documents are subsets of ANSI ASC X12 standards.

RXQ.0.3.3.1 NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards.

RXQ.0.3.3.2 RXQ EDI/EDM standards are X12 compliant.

RXQ.0.3.3.3 Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution.

ASC X12 architecture is designed for fully-automated and auditable end-to-end communications.

RXQ.0.3.3.4 EDI Translators generate the ASC X12 file, including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments.

These numbers and counts are part of the inner and outer envelopes that allow the translator to ensure that all of the segments and all of the data elements have been received and that the transmission was complete.

ISA Outer Envelope

The ISA segment marks the beginning of an X12 document. It can be equated to an envelope that a paper document would come in via the mail. The envelope may contain one or more 'inner envelope' functional groups (defined by the GS segment) and one or more transaction sets.

RXQ.0.3.3.5 The ISA is the interchange control segment to be used on all NAESB X12 standards.

The ISA segment identifies the sender and receiver of the document. The Interchange Sender ID/Interchange Receiver ID is published by both the sender and receiver for other parties to use as the sender/receiver ID to route data to them. The sender must always code the sender's ID

in the sender element and the designated receiver's ID in the receiver ID.

This sender and receiver information is specified in the Technical Exchange Worksheet (TEW) or a Trading Partner Agreement.

There are additional elements in the ISA segment. These elements are traditionally assigned by the sending party's translator. These elements inform the receiver of the date/time that the envelope was generated, the X12 version number being utilized, whether the transmission is for test or production purposes, and what characters were used to designate the end of a sub element, element or segment.

The ISA also defines characters for the sub element (ISA character 105), element (ISA character 4), and segment delimiters (ISA character 106). These delimiting characters must never appear in the data. The ISA is the only fixed-length X12 segment as it uses specific positions in the segment to identify the delimiter characters. The Technical Exchange Worksheet (TEW) provides a section for parties to define their default delimiters. However, receiving parties should always check the above ISA character positions for EDI/EDM delimiters.

An outer envelope always begins with an ISA segment and ends with an IEA segment.

GS/GE 'Functional Group Header/Trailer' Inner Envelopes

The GS segment indicates the beginning of a functional group and provides control information for the data that follows it. A functional group can be defined as a group of transactions related to one business application. An inner envelope always begins with a GS segment and ends with a GE segment.

An outer envelope may have multiple inner envelopes. For example, within an ISA outer envelope, there may be a GS inner envelope of enrollments and a second GS inner envelope of drops. Each of these inner envelopes is sent within its own GS 'Functional Group Header' and a GE 'Functional Group Trailer'.

The Sender provides the Application Sender's Code that the Receiver will reflect back on acknowledging documents. The Receiver provides the Application Receiver's Code that the Sender will include in the transmission for the Receiver to use in routing to internal applications. Group Control Numbers are originated and maintained by the Sender of the document.

997 'Functional Acknowledgment'

The 997 'Functional Acknowledgment (FA)' transaction set is used to indicate the results of the syntactical analysis of contents of an X12 file, including the ISA/IEA outer envelope, the GS/GE functional groups, and the transaction sets (ST/SE).

The 997 FA standard covers all of the X12 and NAESB standard criteria that the receiver of the document has incorporated into the receiver's translator. The translator may be set to accept all information into the receiver's application processing, it may be set to accept only ANSI ASC X12 compliant information into the receiver's application processing, or it may be set to accept only ANSI ASC X12 and NAESB compliant information into the receiver's application processing. Compliance checking in a translator may be set to any of several levels. NAESB recommends that compliance checking be set to the element level in the Functional Acknowledgement.

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The 997 informs the originator of the transaction whether the translator accepted the file, accepted it with errors, or rejected it. When errors occur, the 997 identifies the location and type of error that was encountered. Once a transaction passes the translator, the 997 is sent to the originator of the transaction and the data (if accepted) is passed on to the receiver's business application for processing.

RXQ.0.3.3.6 The Receiver must send a 997 FA for each X12 file received.

RXQ.0.3.3.7 Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of business, as defined by the Receiver, of the receipt of the X12 file.

The 997 includes a timestamp of when the file was translated.

RXQ.0.3.3.8 When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.

The 4010 version of X12 standards was the Year 2000 compliant-version of the standards. Note that in this standard the ISA date elements only have a 2-digit year format.

RXQ.0.3.3.9 RXQEDM uses X12 Version 4010 standards unless otherwise noted.

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C. FLAT-FILE (FF/EDM)

The FF/EDM provides a common set of guidelines for the exchange of transactions formatted as a Flat-files.

'Flat-file' is a commonly-used description of files that have records of a single record structure. While Flat-files are almost always text files, text files are not always Flat-files. While comma-separated-value (CSV) files are often Flat-files, they can also be of different record structures.

The NAESB FF/EDM standards attempt to make it easy to create Flat-files using a spreadsheet without significant programming.

FF/EDM Standards:

RXQ.0.3.4.1 FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13).

RXQ.0.3.4.2 The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data appears in subsequent rows. The data element order is at the option of the sender.

RXQ.0.3.4.3 If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected.

RXQ.0.3.4.4 Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record.

RXQ.0.3.4.5 FF/EDM data elements are separated by commas.

RXQ.0.3.4.6 FF/EDM data elements that may contain a comma should be enclosed by double-quotes.

RXQ.0.3.4.7 FF/EDM data elements should not contain double-quotes.

RXQ.0.3.4.8 FF/EDM data elements that contain negative numbers should have the minus sign precede the number.

RXQ.0.3.4.9 FF/EDM data elements that contain decimal precision should include the decimal point within the data element.

RXQ.0.3.4.10 FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element.

RXQ.0.3.4.11 FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS.

RXQ.0.3.4.12 FF/EDM data elements should be no longer than 256 characters.

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RXQ.0.3.4.13 FFF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).

RXQ.0.3.4.14 FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.

RXQ.0.3.4.15 Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM).

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D. INTERACTIVE FLAT-FILE (FF/EDM)

No RXQEDM business processes currently use interactive Flat-files.

E. ELECTRONIC BULLETIN BOARD (EBB/EDM)

No RXQEDM business processes currently use electronic bulletin boards.

F. WEB (WEB/EDM)

No RXQEDM business processes currently use web pages.

G. XML (XML/EDM)

No RXQEDM business processes currently use XML.

H. WEB SERVICES (WS/EDM)

No RXQEDM business processes currently use web services.

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7 – TESTING AND DEPLOYMENT

Testing and deployment is necessary any time a party introduces and updates their systems. Each party determines the level of testing required for a given implementation. In some cases Governing Documents dictate testing requirements.

RXQ.0.5.1.1 When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least thirty (30) days in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such change(s) in the business rule(s), and the scheduled effective date of such change(s).

RXQ.0.5.1.2 Trading partners implementing Business Rule Changes should provide testing of change(s) prior to the implementation of the change(s).

RXQ.0.5.1.3 Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date.

RXQ.0.5.1.4 Trading partners should use dedicated testing systems that mirror production systems.

Additional testing requirements can be found in either A) the Internet ET standard, or B) the specific standard for the business process(es) to be implemented.

8 – APPENDICES

APPENDIX A – REFERENCE GUIDE

NAESB

NAESB Web Site: (**Error! Hyperlink reference not valid.**www.naesb.org). Primary reference for energy industry standards.

Time Synchronization

Time synchronization is required to assure that all trading partners' transaction times are accurate. Testing has shown that the clocks on all computer systems drift. 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.

Each NAESB business process may have unique time-synchronization requirements. Refer to the QEDM for time-synchronization standards for target markets. Servers need to be time-synchronized according to the standards needed for the most-restrictive target market: that is, the one with the smallest drift allowance.

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.

An easy way to obtain the current time is from the U. S. Naval Observatory's Web site at 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, including IETF NTP, Internet daytime, nisttime / usnotime.

Further information on time synchronization may be found at the following Web sites:
http://tycho.usno.navy.mil/ntp.html
www.ccd.bnl.gov/xntp

Relevant URL's

MIME Standards
RFC 2045: ftp://ftp.rfc-editor.org/in-notes/rfc2045.txt
RFC 1767: ftp://ftp.rfc-editor.org/in-notes/rfc1767.txt

ASC X12 Standards
www.x12.org

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APPENDIX B – FREQUENTLY ASKED QUESTIONS

Q1: Use of 'time-c-qualifier' across quadrants. We understand that the retail quadrants require the 'time-c-qualifier' for 'gisb-acknowledgement-receipt', while the WGQ does not require this data element. If we participate in multiple quadrants, which standard do we use? 17

Q2: How do RXQ markets use the 'refnum' and 'refnum-orig' data elements? 17

Q3: How does RXQEDM support transporting files that do not conform to NAESB standards (e.g. load profiles, reports, PDF files, etc)? 17

Q4: How does this document relate to the Internet ET standard and the standards developed for specific business processes (e.g. Billing and Payments)? 18

Q1: Use of 'time-c-qualifier' across quadrants. We understand that the retail quadrants require the 'time-c-qualifier' for 'gisb-acknowledgement-receipt', while the WGQ does not require this data element. If we participate in multiple quadrants, which standard do we use?

A: You are required to follow the standards dictated by the quadrant that governs the transaction or business process. For example, if you are executing a WGQ nomination, then you should adhere to WGQ standards, which do not require the 'time-c-qualifier'. If you are executing an REQ enrollment, you need to adhere to the REQ standards, which require 'time-c-qualifier'. Of course, all parties can mutually-agree to use the 'time-c-qualifier' or not.

Q2: How do RXQ markets use the 'refnum' and 'refnum-orig' data elements?

A: First, these data elements are mutually-agreed, so parties must agree to use these data elements.

The first time you send a package, the two refnum data elements (refnum, refnum-orig) should be identical 40-digit or less integers, unique over time in your systems.

If you do not receive your NAESB response, you should resend the package with a new refnum (again unique over time), and with the refnum-orig equal to the original send of the package.

The refnum data element is always unique over time. The refnum-orig always refers to a refnum that was used in a previous send.

Refnum Example

Package Send	refnum	refnum-orig
First send	123467890123456	123467890123456
First resend	223467890123457	123467890123456
Second resend	323467890123458	123467890123456

Q3: How does RXQEDM support transporting files that do not conform to NAESB standards (e.g. load profiles, reports, PDF files, etc)?

A: First, sending files using RXQEDM that do not conform to NAESB RXQEDM standards is supported, though on a mutually-agreed-upon basis. Non-NAESB payloads sent using RXQEDM standards should have the following information in the header:

- Internet ET 'input-format' data element = 'PAYLOAD'. This indicates that the format for the file is found in the MIME payload segment.
- MIME header 'content-type' data element = 'application/consent'. This is the MIME default for 'other' formats.
- MIME header 'content-ID' = [agreed upon name]. This is a text string that defines what type of payload is being sent. For example, ERCOT may send load profile data with this value set to 'ERCOT Load Profile'.

Q4: How does this document relate to the Internet ET standard and the standards developed for specific business processes (e.g. Billing and Payments)?

A: RXQEDM standards are designed to work in concert with the NAESB Internet ET standards, and with each standards book developed by NAESB REQ and RGQ business subcommittees. The table below summarizes the scope of the different documents:

NAESB Standard	Scope	
Internet Electronic Transport ([10].y.z)	TCP/IP, HTTP, HTTP POST SSL Encryption OpenPGP/PGP Encryption/Decryption MIME Internet ET Testing	
REQ/RGQ Quadrant-specific Electronic Delivery Mechanism (RXQEDM) (RXQ.0.y.z)	X12 EDI Conventions Batch Flat-files Interactive Flat-files Electronic Bulletin Board	Informational Postings Web/HTML Web Services XML
Business Process Standards (e.g. Billing, Nominations, etc) (x.3.z)	Data Dictionaries Code Values X12 Transactions Sets (e.g. 810, 820, etc) XML Schemas Business Process Testing	

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RXQ	RXQ Standards/Definitions/Principal/Interpretations	WGQ	WGQ 1.7 Original Standards/Definitions/Principal/Interpretation	ET	Internet ET 2.0
[11].1.1	RXQEDM standards do not pick winners, but rather create an environment where the marketplace can dictate a winner(s) (4.1.2).	4.1.2	The Electronic Delivery Mechanism does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners.	[10].1.1	The Internet Electronic Transport (ET) does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners (4.1.2).
[11].1.2	RXQEDM solutions should be cost effective, simple and economical (4.1.3).	4.1.3	The solutions should be cost effective, simple and economical.	[10].1.2	Internet ET solutions should be cost effective, simple and economical (4.1.3).
[11].1.3	RXQEDM solutions should provide for a seamless marketplace for energy (4.1.4).	4.1.4	The solutions should provide for a seamless marketplace for natural gas.	[11].1.3	Internet ET solutions should provide for a seamless marketplace for energy (4.1.4).
[11].1.4	Electronic communications between parties to the transaction should be done on a non-discriminatory basis, whether through an agent or directly with any party to the transaction (4.1.7).	4.1.7	Electronic communications between parties to the transaction should be done on a nondiscriminatory basis, whether through an agent or directly with any party to the transaction.	[10].1.5	Electronic communications between parties to the transaction should be done on a non-discriminatory basis, whether through an agent or directly with any party to the transaction (4.1.7).
[11].1.5	Trading Partners should mutually select and use a version of the NAESB RXQEDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of RXQEDM standards as needed, unless specified otherwise by government agencies (4.1.39).	4.1.39	Trading Partners should mutually select and utilize a version of the NAESB WGQ EDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the NAESB WGQ EDM standards, as needed, again unless specified otherwise by governmental agencies.	[10].1.10	Trading Partners should mutually select and use a version of the NAESB Internet ET standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the NAESB Internet ET standards, as needed, unless specified otherwise by government agencies (4.1.39).
[11].1.6	Market participants should post clear and precise business processing rules at a designated site, and/or in writing upon request (4.1.9).	4.1.9	Service providers should post clear and precise business processing rules at the designated site, or in writing, upon request.	DOES NOT EXIST	
[11].1.7	There should be at least one standard automated computer-to-computer exchange of transactional data for each defined transaction data exchange format (4.1.10).	4.1.10	There should be at least one standard (computer-to-computer exchange of transactional data) for data exchange format.	DOES NOT EXIST	
[11].1.8	Transaction content and usage should reasonably correspond to defined data dictionaries regardless of mechanism, e.g. FF/EDM, EDI/EDM, etc. (4.1.34x).	4.1.34	For NAESB WGQ FF/EDM, the content and usage of flat files should reasonably correspond to the NAESB WGQ data sets used for NAESB WGQ EDI/EDM.	DOES NOT EXIST	
[11].1.9	Automated business processes should use Internet ET, e.g. FF/EDM, EDI/EDM, etc. (4.1.35).	4.1.35	If NAESB WGQ FF/EDM is implemented, flat files should be exchanged via the NAESB WGQ EDI/EDM site or the Customer Activities Web site.	DOES NOT EXIST	
[11].2.1	'RXQEDM' Electric Delivery Mechanism standards for the NAESB RGQ and REQ		DOES NOT EXIST		DOES NOT EXIST

APPENDIX D – RXQEDM / INTERNET ET 2.0 CROSS-REFERENCE

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APPENDIX C – SAMPLE TECHNICAL EXCHANGE WORKSHEET (TEW)

This appendix recommends data elements that should be exchanged by trading partners when using NAESB standards. These data elements may be included in a technical worksheet profile, or as an exhibit in a TPA.

EDM Specifications	Test	Production
Identify your Entity Common Code / DUNS/DUNS+4 Number		
Will you send X12 EDI/EDM Documents?		
Identify your default EDI/EDM Segment Terminator (character 106 in ISA).		
Identify your default EDI/EDM Data Element Terminator (character 4 in ISA).		
Identify your default EDI/EDM Composite Element Separator (character 105 in ISA).		
Identify your EDI/EDM ISA08/GS08 values.		
Will you send the 'time-c-qualifier' in Receipt? (Y/N)	Y (required by RXQ)	Y (required by RXQ)
Will you send non-NAESB packages ('input-format'='PAYLOAD'; e.g. PDF)?		
List expected 'content-ID' values		

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	quadrants that govern package payload file contents, including X12 EDI, Flat-file and other formats.				
[11].2.2	"EDI/EDM". The term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z RXQ standards in the NAESB RXQ Implementation Guides and communicated between trading partners over the Internet using the NAESB Internet ET (4.2.11x).	4.2.11	"NAESB WGQ EDI/EDM" is the term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z NAESB WGQ standards in the NAESB WGQ Implementation Guides and communicated between trading partners over the Internet using the NAESB WGQ Electronic Delivery Mechanism.		DOES NOT EXIST
[11].2.3	"Translator". A program or set of programs that process the contents of payloads, applying ANSI X12 and other standards, and transforms the information to other formats.		DOES NOT EXIST		DOES NOT EXIST
[11].2.4	'Flat-file'. An RXQEDM Flat-file is an ASCII comma-separated-value (CSV) file with the characteristics as defined in the RXQEDM standards.		DOES NOT EXIST		DOES NOT EXIST
[11].2.5	'FF/EDM'. The term used to describe a standardized flat-file electronic data interchange of information in files as mapped from the x.4.z RXQ standards (4.2.12x).	4.2.12	"NAESB WGQ FF/EDM" is the term used to describe a standardized flat file electronic data interchange of information in files as mapped from the x.4.z NAESB WGQ standards. NAESB WGQ FF/EDM is communicated between trading partners over the Internet using the NAESB WGQ Electronic Delivery Mechanism.		DOES NOT EXIST
[11].2.6	'Batch Flat-file'. The term used within the FF/EDM to describe the automated computer-to-computer transfer of Flat-files (4.2.18x).	4.2.18	"Batch Flat File" is the term used within NAESB WGQ FF/EDM to describe the automated computer-to-computer transfer of flat files.		DOES NOT EXIST
[11].2.7	'Interactive Flat-file'. The term used within the FF/EDM to describe the transfer of Flat-files using an interactive browser (4.2.19x).	4.2.19	"Interactive Flat File" is the term used within NAESB WGQ FF/EDM to describe the transfer of flat files using an interactive browser.		DOES NOT EXIST
[11].2.xx	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include QEDM technical exchange information such as ISA numbers, etc. (4.2.26x)	4.2.26	DOES NOT EXIST	[10].2.8	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include technical exchange information such as URLs, et cetera (4.2.26x).
[11].2.xx	'Business Rule Change'. Any change in: A) the presence and/or the acceptable content of a data element sent by the changing party, B) a new business response to an accepted data element received by the changing party; C) a new business response to the acceptable content of a data element received by the changing party; D) a new intended business result. (WGQ EDM cross-reference 4.3.87)	4.3.87	When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business		DOES NOT EXIST

			response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].2.xx	Testing between trading partners includes testing of: (A) intended business results, (B) proposed electronic transport, including security, enveloping, cryptography; and (C) electronic delivery mechanisms (xxx/EDM), including data validity, standards compliance, etc. (4.2.20).	4.2.20	Testing data sets between trading partners includes testing of: 1. intended business results, 2. proposed electronic delivery mechanisms, and 3. related EDI/EDM and, where supported, FF/EDM implementation issues. Testing should include enveloping, security, data validity, and standards compliance (e.g. ANSI X12 and NAESB WGQ EDM Related Standards).	[10].2.1	'Internet ET Testing'. Testing electronic packages between trading partners includes testing of: A) Connectivity; B) Encryption/Decryption; and C) Digital signatures where appropriate (4.2.20).
[11].3.1	RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles.		DOES NOT EXIST		DOES NOT EXIST
[11].3.10	RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.11	RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH) (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour		DOES NOT EXIST

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			format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.12	Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. (4.3.47)	4.3.47	Where they exist for the same business function, flat files and EDI should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. Corresponding Web pages should use data set names, data element names, code value descriptions, abbreviations and message text that correspond to those used in flat files and EDI, where they exist.		DOES NOT EXIST
[11].3.13	Trading partners should use common codes for legal entities for RXQEDM envelope data elements (4.3.56x, 4.3.21??).	4.3.56	The industry should use common codes for location points and legal entities when communicating via EDI/EDM, EBB/EDM and/or FF/EDM. The corresponding common code name should also be used in EBB/EDM.	[10].3.21	Trading partners should use common codes for legal entities for the Internet ET 'to' and 'from' data elements (4.3.56x).
[11].3.14	Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee (4.3.67).	4.3.67	A Transportation Service Provider which determines to provide new services which do not utilize existing transaction sets via NAESB WGQ EBB/EDM, should, prior to implementation, submit a request for standardization to NAESB WGQ including descriptions of the EBB/EDM, EDI/EDM and, as applicable, FF/EDM implementation.		DOES NOT EXIST
[11].3.15	To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur (4.3.86).	4.3.86	To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.		DOES NOT EXIST
[11].3.16	Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment and the 'content-type' header will be set to an appropriate MIME content-type.		DOES NOT EXIST		DOES NOT EXIST
[11].3.2	All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used (4.3.83).	4.3.83	For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.	[10].3.25	Internet ET Servers should use 128-bit Secure Socket Layer (SSL) encryption (4.3.88).
[11].3.20	NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards.		DOES NOT EXIST		DOES NOT EXIST
[11].3.21	RXQ EDI/EDM standards are X12 compliant.		DOES NOT EXIST		DOES NOT EXIST
[11].3.22	Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution.		DOES NOT EXIST		DOES NOT EXIST
[11].3.23	EDI Translators generate the ASC X12 file,		DOES NOT EXIST		DOES NOT EXIST

	including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments.				
[11].3.24	The ISA is the interchange control segment to be used on all NAESB X12 standards.		DOES NOT EXIST		DOES NOT EXIST
[11].3.25	The Receiver must send a 997 FA for each X12 file received.		DOES NOT EXIST		DOES NOT EXIST
[11].3.26	Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of businessas defined by the Receiver, of the receipt of the X12 file.		DOES NOT EXIST		DOES NOT EXIST
[11].3.27	When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.		DOES NOT EXIST		DOES NOT EXIST
[11].3.28	RXQEDM uses X12 Version 4010 standards unless otherwise noted.		DOES NOT EXIST		DOES NOT EXIST
[11].3.3	Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements (4.3.4).	4.3.4	Trading partners should retain transactional data for at least 24 months for audit purposes. This data retention requirement only applies to the ability to recover or regenerate electronic records for a period of two years and does not otherwise modify statutory, regulatory, or contractual record retention requirements.	[10].3.2	Trading partners should retain audit trail data for at least 24 months. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements (4.3.4).
[11].3.4	Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response (4.3.8).	4.3.8	The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by NAESB WGQ.	[10].3.4	The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by NAESB Internet ET (4.3.8).
[11].3.40	FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13) (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.41	The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data	4.3.81	DOES NOT EXIST		DOES NOT EXIST

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	appears in subsequent rows. The data element order is at the option of the sender (4.3.81)				
[11].3.42	If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected(4.3.80)	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.43	Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record (4.3.82).	4.3.82	For NAESB WGQ FF/EDM flat files, each transaction (e.g. nomination) should be contained in a single row.		DOES NOT EXIST
[11].3.44	FF/EDM data elements are separated by commas (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.45	FF/EDM data elements that may contain a comma should be enclosed by double-quotes (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note		DOES NOT EXIST

			that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.46	FF/EDM data elements should not contain double-quotes (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.47	FF/EDM data elements that contain negative numbers should have the minus sign precede the number (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.48	FF/EDM data elements that contain decimal precision should include the decimal point within the data element (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note		DOES NOT EXIST

			that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.49	FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.5	RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp (4.3.9).	4.3.9	For NAESB WGQ EDI/EDM and FF/EDM, there is a time stamp (HTTP Timestamp) that designates the time that a file is received at the designated site. The receiving party should generate a timestamp upon successful receipt of the complete file and send as an immediate response to the sending party. The timestamp should be generated by Common Gateway Interface (CGI) of the receiving party, prior to further processing by the CGI. GPD-DOES NOT MATCH	[10].3.5 and [10].3.7	A timestamp designates the time a file is received at the Receiver's designated site. The timestamp consists of the 'time-c' data element, and in some cases the 'time-cqualifier' data element. Refer to QEDM standards for use of the 'time-c-qualifier' (4.3.9). and After timestamp generation, the Receiver and sends an immediate HTTP Response to the Sender. The 'gisb-acknowledgement-receipt', which includes the timestamp data element(s), is the primary part of the HTTP Response. (4.3.9)
[11].3.50	FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS (4.3.80)	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS		DOES NOT EXIST

			when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.51	FF/EDM data elements should be no longer than 256 characters (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.52	FF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).		DOES NOT EXIST		DOES NOT EXIST
[11].3.53	FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.	4.3.83	For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.		DOES NOT EXIST
[11].3.54	Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM)	4.3.86	To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.		DOES NOT EXIST
[11].3.6	Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a+/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements (4.3.10x).	4.3.10	The time-stamp should be included in the HTTP response back to the sender of the original HTTP transaction. The server clock generating the time-stamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the sender and receiver.	[10].3.8	The Server clock generating the timestamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as necessary to ensure at minimum +/- 5 second synchronization with an atomic clock. Specific business processes may have tighter synchronization requirements (4.3.10x).
[11].3.60	When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance,		DOES NOT EXIST

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	change(s) in the business rule(s), and the scheduled effective date of such change(s) (4.3.87).		or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].3.61	Trading partners implementing Business Rule Changes should provide testing of change(s) during at least a two-week time period prior to the effective date of the change(s) (4.3.87).	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying		DOES NOT EXIST

			trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].3.62	Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date (4.3.87).	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		DOES NOT EXIST
[11].3.63	Trading partners should use dedicated testing systems that are representative of production systems.		DOES NOT EXIST		DOES NOT EXIST
[11].3.7	When Internet ET is used, the Internet ET Receipt timestamp supercedes any EDM timestamps with respect to official time the document was received by the Receiver.	[11].3.27	When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.		DOES NOT EXIST
[11].3.8	When Internet ET is not used, the receipt timestamp is defined by each specific EDM.		DOES NOT EXIST		DOES NOT EXIST
[11].3.9	RXQEDM 'date' data elements should be formatted as YYYYMMDD (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be		DOES NOT EXIST

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			formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		

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RETAIL GENERAL STANDARDS

NAESB Draft Working Paper

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Version 1.0
[Month] [Day] [Year]

RXQ Retail General Standards

The North American Energy Standards Board ("NAESB") disclaims and excludes, and any user of the NAESB standard acknowledges and agrees to NAESB's disclaimer of, any and all warranties, conditions or representations, express or implied, oral or written, with respect to the standard or any part thereof, including any and all implied warranties or conditions of title, non-infringement, merchantability, or fitness or suitability for any particular purpose (whether or not NAESB knows, has reason to know, has been advised, or is otherwise in fact aware of any such purpose), whether alleged to arise by law, by reason of custom or usage in the trade, or by course of dealing. Each user of the standard also agrees that under no circumstances will NAESB be liable for any special, incidental, exemplary, punitive or consequential damages arising out of any use of, or errors or omissions in, the standard.

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NAESB REQ AND RGQ MEMBER COMPANIES
For donating significant staff time to coordinate the publication of the ANSI ASC X12 guidelines.

NAESB WGQ SUBCOMMITTEES
For support and materials describing the business practices, related data sets, data set organization, data elements and data element formats, implementation guides and mapping.

FORESIGHT CORPORATION
For software used to develop the ANSI ASC X12 transaction sets.

TAB 1 – EXECUTIVE SUMMARY

This North American Energy Standards Board (NAESB) Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) General Standards manual details high-level standards that apply to all REQ/RGQ business practices. General Standards include:

- Glossary
- REQ/RGQ Quadrant-Specific Electronic Delivery Mechanism (QEDM[Mee1]).

Glossary

[Insert Glossary Executive Summary here]

REQ/RGQ Quadrant-Specific Electronic Delivery Mechanism (QEDM).

The QEDM standards establish the framework for the electronic dissemination and communication of information between parties in the North American retail gas and electric marketplaces. Specifically, the Retail Gas Quadrant and Retail Electric Quadrant of the North American Energy Standards Board have standardized several methods of communication that can be implemented by ~~market participants~~. The methods are:

1. EDI/EDM Transfer - The transfer of EDI files, as defined by the ANSI-based NAESB REQ/RGQ file format standards, transferred via the Internet using the NAESB Internet Electronic Transport (Internet ET) mechanism.

2. FF/EDM Transfer - The transfer of "flat files", as defined by the NAESB REQ/RGQ file format standards, transferred via the Internet using the NAESB Internet ET mechanism.

For each of these areas, this document provides a high-level guide to development, implementation, and testing. This guide is not intended to be a comprehensive, in-depth manual.

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TAB 2 – VERSION NOTES

Date	Version	Summary of Change
11/18/04		Created as proof of concept

Internal TEIS notes, to be deleted prior to final version

Issue ID	Description
RXQEDM #001	[resolved, pending approval]
RXQEDM #002	[resolved]
RXQEDM #003	[resolved]
RXQEDM #004	[resolved]
RXQEDM #005	[resolved]
RXQEDM #006	[resolved]
RXQEDM #007	[resolved]Testing needs to be thoroughly reviewed
RXQEDM #008	[resolved]Appendices needs to be thoroughly reviewed
RXQEDM #009	[resolved]FAQ needs to be thoroughly reviewed
RXQEDM #010	[resolved]RXQEDM to Internet ET cross reference needs to be prepared
RXQEDM #011	[resolved]RXQEDM to WGQEDM cross reference needs to be prepared
RXQEDM #012	[resolved]Review by all parties of the ERCOT-proposed changes to the use of 'input-format' and 'content-type'
RXQEDM #013	[resolved]Use of TPA and/or profile needs to be finalized
RXQEDM #014	[resolved]References to Glossary Subcommittee (e.g. business day, TPA)
RXQEDM #015	[resolved]Align definitions with WGQ, Glossary subcommittee (GB)
RXQEDM #016	[resolved]Use of X12 v4010?

TAB 3 – INTRODUCTION

NAESB is a voluntary, non-profit organization comprised of members from all aspects of the energy industry. NAESB's mission is to take the lead in developing and implementing standards across the energy industry to simplify and expand electronic communication, and to streamline business practices. This will lead to a seamless North American energy marketplace, as recognized by its customers, the business community, industry participants and regulatory bodies.

NAESB standards are written as 'minimums'. A trading party may offer to 'exceed the minimum standard' by offering additional functions or features as options, but should not require their use. Such additional features or functions are termed "mutually agreed to" in that if both trading partners agree on the inclusion, the additional feature requirements will be met. However, if either trading party does not agree to the inclusion of additional features, then the partners must allow for transmission and receipt of data using the minimum standards. NAESB defines 'exceed the minimum standard' to mean surpassing the standards without negative impact on contracting and non-contracting parties

All of the standards have been adopted with the anticipation that as the industry evolves and uses the standards, additional and amended NAESB standards will be necessary. Any industry participant seeking additional or amended standards (including principles, definitions, standards, data elements, process descriptions, technical implementation instructions) should submit a request to the NAESB office detailing the change so that the appropriate process may take place to amend the standards. Standards are grouped in books according to activity in the retail market. Each book is organized according to the outlined below:

TAB 1 Executive Summary
Provides a brief outline of this guide and the industry context for its use

TAB 2 Version Notes
Contains notes about the current version and a summary of changes from preceding versions

TAB 3 Introduction
Provides a background statement about NAESB's Mission and the design of this guide

TAB 4 Business Process & Practices
Provides an overview of business processes and NAESB RXQ approved principles, definitions and standards related to this guide

TAB 5 Related Standards
Provides an overview of related standards

TAB 6 Technical Implementation - Internet EDI/EDM and Batch FF/EDM
Provides quadrant specific information related to Internet EDI/EDM and Batch FF/EDM

TAB 7 Testing and Deployment
Provides an overview of the business processes for IP/EDM

TAB 8 Appendices
Appendix A - Reference Guide

Appendix B - Frequently Answered Questions
Appendix C - Sample Technical Exchange Worksheet
Appendix D - Cross-reference of RXQEDM with WGQ EDM 1.7 and Internet ET 2.0.

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TAB 4 – BUSINESS PROCESSES AND PRACTICES [Mee2]

RXQ 0.1. Principles

RXQ.0.1.2 There should be a unique Entity Common Code for each Entity name and there should be a unique Entity name for each Entity Common Code.

RXQ.0.1.3 RXQ standards [Mee3] create an environment where all Market Participants are treated equally. ~~do not pick winners, but rather create an environment where the marketplace can dictate a winner(s).~~

RXQ.0.1.4 RXQ solutions should be cost effective, simple and economical.

RXQ.0.1.5 RXQ solutions should provide for a seamless marketplace for energy.

RXQ.0.1.6 Electronic communications between parties should be done on a non-discriminatory basis, whether through an agent or directly with any party.

RXQ.0.1.7 Trading Partners should mutually select and use a version of the NAESB RXQ standards under which to operate, unless specified otherwise by ~~government agencies~~the Applicable Regulatory Authority. Trading Partners should also mutually agree to upgrade or adopt later versions of RXQ standards as needed, unless specified otherwise by ~~government agencies~~the Applicable Regulatory Authority.

RXQ.0.1.8 Market ~~participants~~ Participants should post clear and precise business processing rules at a designated site, and/or in writing upon request.

RXQ.0.1.9 For Electronic Delivery Mechanisms (EDM), there should be at least one standard automated computer-to-computer exchange of transactional data for each defined transaction data exchange format.

RXQ.0.1.10 For EDM, transaction content and usage should reasonably correspond to defined data dictionaries regardless of mechanism, e.g. FF/EDM, EDI/EDM, etc.

RXQ.0.1.11 For EDM, automated business processes should use Internet ET.

RXQ 0.2. Glossary [Mee4]

RXQ maintains this glossary of definitions as the central location for definitions used throughout all RXQ standards books. These definitions may be echoed in each book for convenience. Where there are discrepancies due to editing or maintenance, definitions in this RXQ.0 Glossary are official.

Glossary Term	Standard	Definition
Applicable Regulatory Authority	RXQ.0.2.1	The state regulatory agency or other local governing body that provides oversight, policy guidance, and direction to any parties involved in the process of providing energy to retail access Customers through regulations and orders.
Assumption of Receivables	RXQ.0.2.2	The payment processing method in which the Billing Party assumes the Non-Billing Party's receivables and sends the Non-Billing Party payment at predetermined intervals for all Non-Billing Party amounts that are billed, payable to the Non-Billing Party, and do not have a status of In Dispute, in accordance with the tariff, Billing Services Agreement or other Governing Document regardless of when (or whether) the Customer pays the Billing Party.
Batch Flat-file	RXQ.0.2.26	The term used within the FF/EDM to describe the automated computer-to-computer transfer of Flat-files.

Bill Ready	RXQ.0.2.2	A Consolidated Billing practice in which the Billing Party receives the calculated charge amount(s) directly from the Non-Billing Party in lieu of the Billing Party calculating it directly from the rate.
Billing Party	RXQ.0.2.3	The party performing billing services for one or more parties.
Billing Services Agreement	RXQ.0.2.4	A legally binding document between the Distribution Company and the Supplier used when one of the parties is performing Consolidated Billing for the other party. Such document sets forth the expectations and responsibilities of each party.
Business Day	RXQ.0.2.5	As defined in the Governing Documents.
Business Rule Change	RXQ.0.2.28	Any change in: A) the presence and/or the acceptable content of a data element sent by the changing party, B) a new business response to an accepted data element received by the changing party; C) a new business response to the acceptable content of a data element received by the changing party; D) a new intended business result.
Consolidated Billing	RXQ.0.2.6	The billing option in which the Distribution Company or Supplier renders a Customer bill consolidating the energy, transmission/transportation and distribution charges of the Distribution Company and the Supplier, for which a single payment from the Customer is expected.
Customer	RXQ.0.2.7	Any entity that takes gas and/or electric service for its own consumption.
Distribution Company	RXQ.0.2.8	A regulated entity which provides distribution services and may provide energy and/or transmission/transportation services in a given area.
Dual Billing	RXQ.0.2.9	The billing option in which the Distribution Company and Supplier render separate Customer bills for the products and services each provides.
EDI/EDM	RXQ.0.2.22	The term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z RXQ standards in the NAESB RXQ Implementation Guides and communicated between trading partners over the Internet using the NAESB Internet ET.
Entity	RXQ.0.2.30	A person or organization with sufficient legal standing to enter into a contract or arrangement with another such person or organization (as such legal standing may be determined by those parties) for the purpose of conducting and/or coordinating energy transactions.
Entity Common Code	RXQ.0.2.31	The DUNS® or DUNS+4 number used as the common company identifier. The DUNS number is a 9-digit number assigned to companies by the Dun & Bradstreet Corporation (D&B). The DUNS+4 number is a 10- to 13-digit number, where characters 10 through 13 are arbitrarily assigned by the owner of the DUNS number. Entity common codes should be 'legal entities,' that is, Ultimate Location, Headquarters Location, and/or Single Location (in D&B terms).
FF/EDM	RXQ.0.2.25	The term used to describe a standardized flat-file electronic data interchange of information in files as mapped from the x.4.z RXQ standards.
Flat-file	RXQ.0.2.24	An RXQEDM Flat-file is an ASCII comma-separated-value (CSV) file with the characteristics as defined in the RXQEDM standards.
Governing Documents	RXQ.0.2.10	Documents that determine the interactions among parties, including but not limited to regulatory documents (e.g., tariffs, rules, regulations), contractual agreements, and Distribution Company operational manuals.
In Dispute	RXQ.0.2.11	A bill status that prevents collection action from being taken on the disputed amount.
Interactive Flat-file	RXQ.0.2.27	The term used within the FF/EDM to describe the transfer of Flat-files using an interactive browser.
Non-Billing Party	RXQ.0.2.12	The party whose charges are being combined into a statement (or invoice) prepared and rendered by another party.
Pay As You Get Paid	RXQ.0.2.13	The payment processing method in which the Billing Party forwards payment to the Non-Billing Party for the Non-Billing Party charges only after receiving payment.
Rate Code	RXQ.0.2.14	A product identifier used in a billing system which contains all information, such as description and price, needed to bill for that product. One or more Rate Codes may be billed on a single account.
Rate Ready	RXQ.0.2.15	Refers to the practice in which the Non-Billing Party provides rate information to the Billing Party sufficient to calculate the Non-Billing Party's charges.
RXQEDM	RXQ.0.2.20	Electric Delivery Mechanism standards for the NAESB RGQ and REQ quadrants

RXQ Retail General Standards

		that govern package payload file contents, including X12 EDI, Flat-file and other formats.
Service Delivery Point	RXQ.0.2.16	A physical metered and/or unmetered service location supplying energy to a Customer premise.
Single Retail Supplier Billing	RXQ.0.2.17	The billing option in which the Supplier renders a Customer bill for all energy, transmission/transportation, and distribution related charges. The Supplier purchases or otherwise acquires energy, transmission/transportation and distribution services, and therefore all charges on the bill are Supplier charges. A single payment from the Customer is expected.
Supplier	RXQ.0.2.18	Persons engaged in the competitive sale of energy to end-users.
Testing	RXQ.0.2.29	Testing between trading partners includes testing of: (A) intended business results, (B) proposed electronic transport, including security, enveloping, cryptography; and (C) electronic delivery mechanisms (xxx/EDM), including data validity, standards compliance, etc.
Trading Partner	RXQ.0.2.32	A party that enters into an agreement with another party to transact business electronically using NAESB standards.
Trading Partner Agreement (TPA)	RXQ.0.2.21	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include QEDM technical exchange information such as ISA numbers, etc.
Translator	RXQ.0.2.23	A program or set of programs that process the contents of payloads, applying ANSI X12 and other standards, and transforms the information to other formats.
Uniform Electronic Transaction	RXQ.0.2.19	Standard data arrangements for trading information, making business requests and exchanging other information, encompassing a number of electronic media and utilizing specified transport protocols.

RXQ 0.3~~.~~ Model Business Practices

RXQ.0.3.01.1 Entity common codes should be 'legal entities', that is, Ultimate Location, Headquarters Location, and/or Single Location in Dun & Bradstreet Corporation (D&B) terms. However, in the following situations, a Branch Location, in D&B terms, can also be an entity common code: 1) when contracting party provides a DUNS® number at the Branch Location level; **OR 2)** to accommodate accounting for an entity that is identified at the Branch Location level. ..... 555[Mee51]

RXQ.0.3.2.1 RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles..... 666

RXQ.0.3.2.2 All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used. 666

RXQ.0.3.2.3 Trading partners should retain transaction data for at least 24 months for audit purposes or as specified by Applicable Regulatory Authority. ~~This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements.~~ 666

RXQ.0.3.2.4 Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response. 776

RXQ.0.3.2.5 RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp. 777

RXQ.0.3.2.6 Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a+/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements.. 777

RXQ.0.3.2.7 When Internet ET is used, the Internet ET Receipt timestamp supercedes any EDM timestamps with respect to official time the document was received by the Receiver. 777

RXQ.0.3.2.8 When Internet ET is not used, the receipt timestamp is defined by each specific EDM. 777

RXQ.0.3.2.9 RXQEDM 'date' data elements should be formatted as YYYYMMDD. 777

RXQ.0.3.2.10 RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS. 777

RXQ.0.3.2.11 RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH). 777

RXQ.0.3.2.12 Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. 777

RXQ.0.3.2.13 Trading partners should use common codes for legal entities for RXQEDM envelope data elements. 777

RXQ.0.3.2.14 Requests for standardization of additional services and/or data elements should

be submitted to the appropriate NAESB quadrant Executive Committee. 777

RXQ.0.3.2.15 To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur. 777

RXQ.0.3.2.16 [??RXQEDM #012]Non[Mee6]-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment, the 'content-type' header will be set to 'application/consent', and the 'content-ID' header will be set to a mutually-agreeable string identifying the contents of the package. 888

RXQ.0.3.3.1 NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards. 9

RXQ.0.3.3.2 RXQ EDI/EDM standards are X12 compliant. 9

RXQ.0.3.3.3 Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution. 9

RXQ.0.3.3.4 EDI Translators generate the ASC X12 file, including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments. 9

RXQ.0.3.3.5 The ISA is the interchange control segment to be used on all NAESB X12 standards 9

RXQ.0.3.3.6 The Receiver ~~must~~should send a 997 FA for each X12 file received unless otherwise stipulated in the Billing Services Agreement. 111111

RXQ.0.3.3.7 Inbound EDI transactions should be processed every Business Dday ~~business is conducted~~. Upon receipt of an EDI transaction, t~~T~~he 997 should be sent within one Business Day~~day of business~~receipt??RXQEDM #005[GB]- energy day/business day[Mee7]??, or as specified in the Billing Services Agreement or by the Applicable Regulatory Authority~~as defined by the Receiver, of the receipt of the X12 file~~. 111111

RXQ.0.3.3.8 When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp. 111111

RXQ.0.3.3.9 RXQEDM uses X12 Version 4010 ??RXQEDM #016[Mee8] standards unless otherwise noted. 111111

RXQ.0.3.4.1 FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13). 121212

RXQ.0.3.4.2 The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data appears in subsequent rows. The data element order is at the option of the sender [??RXQEDM #002]121212

RXQ.0.3.4.3 If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected [??RXQEDM #002[Mee9]]. 121212

RXQ.0.3.4.4 Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record 121212

RXQ.0.3.4.5 FF/EDM data elements are separated by commas. 121212

RXQ.0.3.4.6 FF/EDM data elements that may contain a comma should be enclosed by double-quotes. 121212

RXQ.0.3.4.7 FF/EDM data elements should not contain double-quotes 121212

RXQ.0.3.4.8 FF/EDM data elements that contain negative numbers should have the minus sign precede the number. 121212

RXQ.0.3.4.9 FF/EDM data elements that contain decimal precision should include the decimal point within the data element. 121212

RXQ.0.3.4.10 FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element. 121212

RXQ.0.3.4.11 FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS. 121212

RXQ.0.3.4.12 FF/EDM data elements should be no longer than 256 characters. 121212

RXQ.0.3.4.13 FFF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices). 131313

RXQ.0.3.4.14 FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient. 131313

RXQ.0.3.4.15 Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM). 131313

RXQ.0.3.5.1 When a party plans to implement a Business Rule Change ~~changes the business rule(s) it~~that will apply to documents, change systems used to process transactions, or change third party service providers, it should notify its trading partners at least thirty (30) days in advance of the change(s). The notification should ~~include~~ identify~~ication of~~ the nature of the changes being made~~data element(s) that are changing~~, the intended business result of such change(s) ~~in the business rule(s)~~, and the scheduled effective date of such change(s). . 151515

RXQ.0.3.5.2 Trading partners implementing changes~~Business Rule Changes~~ should provide testing of change(s) prior to the implementation of the change(s). 151515

RXQ.0.3.5.3 Testing and deployment requirements should be specified in the Billings Services Agreement or as specified by the Applicable Regulatory Authority.

RXQ.0.3.5.~~4~~3 Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date. 151515

RXQ.0.3.5.~~4~~5 Trading partners should use dedicated testing systems that mirror production systems. 151515

RXQ 0.~~4.~~ Interpretations

NAESB has no interpretations of standards that relate to RXQEDM.

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TAB 5 – RELATED STANDARDS

INTERNET ELECTRONIC TRANSPORT (ET)

In NAESB business processes, the RXQEDM standards are generally used in conjunction with the Internet ET transport standards[Mee10].

Related Definitions from Internet ET

These definitions are used in this document. For exact definitions, please refer to the Internet ET standards manual.

[10].2.13 'Electronic Package'. A data stream sent via HTTP POST that contains envelope header information and Payload File(s). The Payload Files are encrypted using defined Internet ET encryption techniques.

[10].2.20 'Internet EDM'. The GISB and NAESB WGQ standards up to and including Version 1.7. 'Internet ET' and 'RXQEDM' standards are derived from these EDM standards.

[10].2.24 'Exchange Failure'. An exchange failure is when a sending party's NAESB Internet ET server has had three or more protocol failures over a period of time no less than thirty minutes and no more than two hours.

[10].2.25 'QEDM'. Quadrant-specific Electronic Delivery Mechanism; the set of standards for each NAESB quadrant that define the EDM standards for EDI, Flat-files, electronic bulletin boards, and other technologies. The QEDM excludes electronic transport practices and standards. The QEDMs were derived from the GISB and NAESB WGQ Internet EDM standards.

[10].2.26 'Receipt'. The HTTP Response sent from the Receiver to the Sender that includes the 'gisb-acknowledge-receipt' section with a timestamp and OK/error status.

[10].2.30 'Technical Exchange Worksheet' or 'TEW'. A document or worksheet used to communicate important information related to the technical implementation of Internet ET; includes information such as URLs, contacts and Public Key policies.

Related Standards from Internet ET

[10].3.5 A timestamp designates the time a file is received at the Receiver's designated site. The timestamp consists of the 'time-c' data element, and in some cases the 'time-c-qualifier' data element. Refer to QEDM standards for use of the 'time-c-qualifier'.

ENTITY COMMON CODE[Mee11]

REQ and RGQ use the DUNS® or DUNS+4 number as the common company identifier for the HTTP Request and Response data dictionary 'to' and 'from' HTTP header elements. The DUNS® number is a 9-digit number assigned to companies by the Dun & Bradstreet Corporation (D&B). The DUNS+4® number is a 10- to 13-digit number, where characters 10 through 13 are arbitrarily assigned by the owner of the DUNS® number.

For RXQEDM Common Code purposes, an entity will use one and only one DUNS® number. Entity common codes should be 'legal entities,' that is, Ultimate Location, Headquarters Location, and/or Single Location (in D&B terms). However, in the following situations, a Branch Location (in D&B terms) can also be an entity common code:

1. When the contracting party provides a DUNS® number at the Branch Location level.
2. To accommodate accounting for an entity that is identified at the Branch Location level.

Since D&B offers customers the option of carrying more than one DUNS® number per entity, please refer to NAESB's Web Page for directions on determining the one and only one DUNS® number constituting the NAESB Entity Common Code.

RXQ.0.1.2 There should be a unique entity common code for each entity name and there should be a unique entity name for each entity common code.

RXQ.0.3.0.1 Entity common codes should be 'legal entities', that is, Ultimate Location, Headquarters Location, and/or Single Location in Dun & Bradstreet Corporation (D&B) terms. However, in the following situations, a Branch Location, in D&B terms, can also be an entity common code: 1) when contracting party provides a DUNS® number at the Branch Location level; ***OR 2)*** *to accommodate accounting for an entity that is identified at the Branch Location level.*

TRADING PARTNER AGREEMENT

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

The Trading Partner Agreement (TPA) specifies what functions each party should perform in electronic transactions. The QEDM contains an optional Technical Exchange Worksheet in the appendix that outlines basic QEDM information between trading partners. Additionally, the Internet ET contains an optional Technical Exchange Worksheet that outlines basic connectivity information between trading partners. The specifications in the TPA should be tested before reliance on the production implementation for business transactions.

TAB 6 – TECHNICAL IMPLEMENTATION [Mee12]

A. GENERAL ELECTRONIC DELIVERY MECHANISM

Open Standards

The "open" technology standards selected by NAESB WGQ are designed to provide flexibility and scalability. The business benefits gained from adherence to open standards are:

- Provides the framework to electronically trade with others (e.g., electric utilities, banks, suppliers, retail customers).
- Encourages marketplace development of off-the-shelf software solutions to support NAESB WGQ QEDM.
- Strengthens security and integrity of electronic communication.

Privacy/Authentication/Integrity/Non-repudiation

RXQ.0.3.2.1 RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles.

RXQ.0.3.2.2 All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used.

Audit Trails

RXQ.0.3.2.3 Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements.

Receipt Timestamps

Similar to certified postal mail, many Senders are interested in knowing that their document was received, and at what time the document was received. One aspect of 'non-repudiation' says that the Receiver cannot deny receiving the document.

The use of an electronic receipt provides the Sender with a level of non-repudiation.

The primary timestamp in NAESB standards is the 'time-c' data element found in the 'gisb-acknowledgement-receipt' in Internet ET Responses. When Internet ET is used, this timestamp should serve as the primary timestamp for non-repudiation purposes.

When Internet ET is not used, refer to each EDM for the receipt convention. EDI/EDM uses the date and timestamps in the ISA segment. FF/EDM does not have any current timestamp standards.

RXQ.0.3.2.4 Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response.

RXQ.0.3.2.5 RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp.

RXQ.0.3.2.6 Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a +/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements.

When Internet ET is used, Internet ET timestamps take precedence over EDM timestamps such as those found in the EDI 997. When Internet ET is not used, other timestamps are defined by the EDM (e.g. EDI/EDM or FF/EDM).

RXQ.0.3.2.7 When Internet ET is used, the Internet ET Receipt timestamp supersedes any EDM timestamps with respect to official time the document was received by the Receiver.

RXQ.0.3.2.8 When Internet ET is not used, the receipt timestamp is defined by each specific EDM.

ISO Date and Time Data Elements

RXQEDM data elements should use the following date and time standards:

RXQ.0.3.2.9 RXQEDM 'date' data elements should be formatted as YYYYMMDD.

RXQ.0.3.2.10 RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS.

RXQ.0.3.2.11 RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH).

Other

RXQ.0.3.2.12 Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text.

RXQ.0.3.2.13 Trading partners should use common codes for legal entities for RXQEDM envelope data elements.

RXQ.0.3.2.14 Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee.

RXQ.0.3.2.15 To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur.

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Internet Electronic Transport for Non-NAESB Packages

RXQEDM supports use of Internet ET for transportation of files other than EDI X12 and flat-files. Examples may include reports, load profiles and PDF files. Current Internet ET standards do not accommodate efficient processing of these formats. The following standard enables receiving companies to efficiently support these conventions, and eliminates NAESB intervention when a new type of file is to be transmitted.

Non-NAESB payloads sent using RXQEDM standards should have the following information in the header:

- Internet ET 'input-format' data element = 'PAYLOAD'. This indicates that the format for the file is found in the MIME payload segment.
- MIME header 'content-type' data element = appropriate MIME content-type.

RXQ.0.3.2.16 Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment and the 'content-type' header will be set to an appropriate MIME content type.

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B. X12 ELECTRONIC DATA INTERCHANGE (EDI/EDM)

ANSI ASC X12 Standards

RXQ standards reflect industry use of the American National Standards Institute (ANSI) ASC X12 standards maintained by the Data Interchange Standards Association, Inc. (DISA).

Parties using RXQ X12 EDI standards should have a copy of the ANSI ASC X12 Standards Reference document for a full understanding of the X12 requirements. NAESB members may purchase an ANSI reference document through NAESB by contacting the NAESB office. Non-NAESB industry participants may purchase the reference document by contacting the Manager of Publications at DISA (www.disa.org, 703.548.7005)

RXQ EDI technical implementation documents are subsets of ANSI ASC X12 standards.

RXQ.0.3.3.1 NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards[Mee13].

RXQ.0.3.3.2 RXQ EDI/EDM standards are X12 compliant.

RXQ.0.3.3.3 Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution.

ASC X12 architecture is designed for fully-automated and auditable end-to-end communications.

RXQ.0.3.3.4 EDI Translators generate the ASC X12 file, including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments.

These numbers and counts are part of the inner and outer envelopes that allow the translator to ensure that all of the segments and all of the data elements have been received and that the transmission was complete.

ISA Outer Envelope

The ISA segment marks the beginning of an X12 document. It can be equated to an envelope that a paper document would come in via the mail. The envelope may contain one or more 'inner envelope' functional groups (defined by the GS segment) and one or more transaction sets.

RXQ.0.3.3.5 The ISA is the interchange control segment to be used on all NAESB X12 standards.

The ISA segment identifies the sender and receiver of the document. The Interchange Sender ID/Interchange Receiver ID is published by both the sender and receiver for other parties to use

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as the sender/receiver ID to route data to them. The sender must always code the sender's ID in the sender element and the designated receiver's ID in the receiver ID.

This sender and receiver information is specified in the Technical Exchange Worksheet (TEW) or a Trading Partner Agreement.

There are additional elements in the ISA segment. These elements are traditionally assigned by the sending party's translator. These elements inform the receiver of the date/time that the envelope was generated, the X12 version number being utilized, whether the transmission is for test or production purposes, and what characters were used to designate the end of a sub element, element or segment.

The ISA also defines characters for the sub element (ISA character [Mee14]105), element (ISA character 4), and segment delimiters (ISA character 106). These delimiting characters must never appear in the data. The ISA is the only fixed-length X12 segment as it uses specific positions in the segment to identify the delimiter characters. The Technical Exchange Worksheet (TEW) provides a section for parties to define their default delimiters. However, receiving parties should always check the above ISA character positions for EDI/EDM delimiters.

An outer envelope always begins with an ISA segment and ends with an IEA segment.

GS/GE 'Functional Group Header/Trailer' Inner Envelopes

The GS segment indicates the beginning of a functional group and provides control information for the data that follows it. A functional group can be defined as a group of transactions related to one business application. An inner envelope always begins with a GS segment and ends with a GE segment.

An outer envelope may have multiple inner envelopes. For example, within an ISA outer envelope, there may be a GS inner envelope of enrollments and a second GS inner envelope of drops. Each of these inner envelopes is sent within its own GS 'Functional Group Header' and a GE 'Functional Group Trailer'.

The Sender provides the Application Sender's Code that the Receiver will reflect back on acknowledging documents. The Receiver provides the Application Receiver's Code that the Sender will include in the transmission for the Receiver to use in routing to internal applications. Group Control Numbers are originated and maintained by the Sender of the document.

997 'Functional Acknowledgment'

The 997 'Functional Acknowledgment (FA)' transaction set is used to indicate the results of the syntactical analysis of contents of an X12 file, including the ISA/IEA outer envelope, the GS/GE functional groups, and the transaction sets (ST/SE).

The 997 FA standard covers all of the X12 and NAESB standard criteria that the receiver of the document has incorporated into the receiver's translator. The translator may be set to accept all information into the receiver's application processing, it may be set to accept only ANSI ASC X12 compliant information into the receiver's application processing, or it may be set to accept only ANSI ASC X12 and NAESB compliant information into the receiver's application processing. Compliance checking in a translator may be set to any of several levels. NAESB recommends that compliance checking be set to the element level in the Functional

Acknowledgement.

The 997 informs the originator of the transaction whether the translator accepted the file, accepted it with errors, or rejected it. When errors occur, the 997 identifies the location and type of error that was encountered. Once a transaction passes the translator, the 997 is sent to the originator of the transaction and the data (if accepted) is passed on to the receiver's business application for processing.

RXQ.0.3.3.6 The Receiver ~~must~~ should send a 997 FA for each X12 file received unless otherwise stipulated in the Billing Services Agreement.

RXQ.0.3.3.7 Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of business, as defined by the Receiver, of the receipt of the X12 file.

The 997 includes a timestamp of when the file was translated.

RXQ.0.3.3.8 When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.

The 4010 version of X12 standards was the Year 2000 compliant-version of the standards. Note that in this standard the ISA date elements only have a 2-digit year format.

RXQ.0.3.3.9 RXQEDM uses X12 Version 4010 standards unless otherwise noted.

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C. FLAT-FILE (FF/EDM[Mee15])

The FF/EDM provides a common set of guidelines for the exchange of transactions formatted as a Flat-files.

'Flat-file' is a commonly-used description of files that have records of a single record structure. While Flat-files are almost always text files, text files are not always Flat-files. While comma-separated-value (CSV) files are often Flat-files, they can also be of different record structures.

The NAESB FF/EDM standards attempt to make it easy to create Flat-files using a spreadsheet without significant programming.

FF/EDM Standards:

RXQ.0.3.4.1 FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13).

RXQ.0.3.4.2 The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data appears in subsequent rows. The data element order is at the option of the sender.

RXQ.0.3.4.3 If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected.

RXQ.0.3.4.4 Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record.

RXQ.0.3.4.5 FF/EDM data elements are separated by commas.

RXQ.0.3.4.6 FF/EDM data elements that may contain a comma should be enclosed by double-quotes.

RXQ.0.3.4.7 FF/EDM data elements should not contain double-quotes.

RXQ.0.3.4.8 FF/EDM data elements that contain negative numbers should have the minus sign precede the number.

RXQ.0.3.4.9 FF/EDM data elements that contain decimal precision should include the decimal point within the data element.

RXQ.0.3.4.10 FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element.

RXQ.0.3.4.11 FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS.

RXQ.0.3.4.12 FF/EDM data elements should be no longer than 256 characters.

RXQ.0.3.4.13 FFF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).

RXQ.0.3.4.14 FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.

RXQ.0.3.4.15 Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM).

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D. INTERACTIVE FLAT-FILE (FF/EDM)

No RXQEDM business processes currently use interactive Flat-files.

E. ELECTRONIC BULLETIN BOARD (EBB/EDM)

No RXQEDM business processes currently use electronic bulletin boards.

F. WEB (WEB/EDM)

No RXQEDM business processes currently use web pages.

G. XML (XML/EDM)

No RXQEDM business processes currently use XML.

H. WEB SERVICES (WS/EDM)

No RXQEDM business processes currently use web services.

TAB 7 – TESTING AND DEPLOYMENT

Testing and deployment is necessary ~~any time a party introduces and updates their systems. Each party determines the level of testing required for a given implementation. In some cases Governing Documents dictate testing requirements.~~to insure the ability to exchange transaction and maintain seamless market operations prior to the exchange of live customer specific transactions.

RXQ.0.3.5.1.1 When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least thirty (30) days in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such change(s) in the business rule(s), and the scheduled effective date of such change(s).

RXQ.0.3.5.~~1.2~~2 Trading partners implementing Business Rule Changes should provide testing of change(s) prior to the implementation of the change(s).

RXQ.0.3.5.3 *Testing and deployment requirements should be specified in the Billings Services Agreement or as specified by the Applicable Regulatory Authority.*

RXQ.0.3.5.~~1.3~~4 Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date.

RXQ.0.3.5.~~1.4~~5 Trading partners should use dedicated testing systems that mirror production systems.

Additional testing requirements can be found in either A) the Internet ET standard, or B) the specific standard for the business process(es) to be implemented.

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TAB 8 – APPENDICES

APPENDIX A – REFERENCE GUIDE

NAESB

NAESB Web Site: (**Error! Hyperlink reference not valid.**www.naesb.org). Primary reference for energy industry standards.

Time Synchronization

Time synchronization is required to assure that all trading partners' transaction times are accurate. Testing has shown that the clocks on all computer systems drift. 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.

Each NAESB business process may have unique time-synchronization requirements. Refer to the QEDM for time-synchronization standards for target markets. Servers need to be time-synchronized according to the standards needed for the most-restrictive target market: that is, the one with the smallest drift allowance.

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.

An easy way to obtain the current time is from the U. S. Naval Observatory's Web site at 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, including IETF NTP, Internet daytime, nisttime / usnotime.

Further information on time synchronization may be found at the following Web sites:
http://tycho.usno.navy.mil/ntp.html
www.ccd.bnl.gov/xntp

Relevant URL's

MIME Standards
RFC 2045: ftp://ftp.rfc-editor.org/in-notes/rfc2045.txt
RFC 1767: ftp://ftp.rfc-editor.org/in-notes/rfc1767.txt

ASC X12 Standards
www.x12.org

APPENDIX B – FREQUENTLY ASKED QUESTIONS

Q1: Use of 'time-c-qualifier' across quadrants. We understand that the retail quadrants require the 'time-c-qualifier' for 'gisb-acknowledgement-receipt', while the WGQ does not require this data element. If we participate in multiple quadrants, which standard do we use? 171717

Q2: How do RXQ markets use the 'refnum' and 'refnum-orig' data elements? 171717

Q3: How does RXQEDM support transporting files that do not conform to NAESB standards (e.g. load profiles, reports, PDF files, etc)? 171717

Q4: How does this document relate to the Internet ET standard and the standards developed for specific business processes (e.g. Billing and Payments)? 181818

Q1: Use of 'time-c-qualifier' across quadrants. We understand that the retail quadrants require the 'time-c-qualifier' for 'gisb-acknowledgement-receipt', while the WGQ does not require this data element. If we participate in multiple quadrants, which standard do we use?

A: You are required to follow the standards dictated by the quadrant that governs the transaction or business process. For example, if you are executing a WGQ nomination, then you should adhere to WGQ standards, which do not require the 'time-c-qualifier'. If you are executing an REQ enrollment, you need to adhere to the REQ standards, which require 'time-c-qualifier'. Of course, all parties can mutually-agree to use the 'time-c-qualifier' or not.

Q2: How do RXQ markets use the 'refnum' and 'refnum-orig' data elements?

A: First, these data elements are mutually-agreed, so parties must agree to use these data elements.

The first time you send a package, the two refnum data elements (refnum, refnum-orig) should be identical 40-digit or less integers, unique over time in your systems.

If you do not receive your NAESB response, you should resend the package with a new refnum (again unique over time), and with the refnum-orig equal to the original send of the package.

The refnum data element is always unique over time. The refnum-orig always refers to a refnum that was used in a previous send.

Refnum Example

Package Send	refnum	refnum-orig
First send	123467890123456	123467890123456
First resend	223467890123457	123467890123456
Second resend	323467890123458	123467890123456

Q3: How does RXQEDM support transporting files that do not conform to NAESB standards (e.g. load profiles, reports, PDF files, etc)?

A: First, sending files using RXQEDM that do not conform to NAESB RXQEDM standards is supported, though on a mutually-agreed-upon basis. Non-NAESB payloads sent using RXQEDM standards should have the following information in the header:

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- Internet ET 'input-format' data element = 'PAYLOAD'. This indicates that the format for the file is found in the MIME payload segment.
- MIME header 'content-type' data element = 'application/consent'. This is the MIME default for 'other' formats.
- MIME header 'content-ID' = [agreed upon name]. This is a text string that defines what type of payload is being sent. For example, ERCOT may send load profile data with this value set to 'ERCOT Load Profile'.

Q4: How does this document relate to the Internet ET standard and the standards developed for specific business processes (e.g. Billing and Payments)?

A: RXQEDM standards are designed to work in concert with the NAESB Internet ET standards, and with each standards book developed by NAESB REQ and RGQ business subcommittees. The table below summarizes the scope of the different documents:

NAESB Standard	Scope	
Internet Electronic Transport ([10].y.z)	TCP/IP, HTTP, HTTP POST SSL Encryption OpenPGP/PGP Encryption/Decryption MIME Internet ET Testing	
REQ/RGQ Quadrant-specific Electronic Delivery Mechanism (RXQEDM) (RXQ.0.y.z)	X12 EDI Conventions Batch Flat-files Interactive Flat-files Electronic Bulletin Board	Informational Postings Web/HTML Web Services XML
Business Process Standards (e.g. Billing, Nominations, etc) (x.3.z)	Data Dictionaries Code Values X12 Transactions Sets (e.g. 810, 820, etc) XML Schemas Business Process Testing	

APPENDIX C – SAMPLE TECHNICAL EXCHANGE WORKSHEET (TEW)

This appendix recommends data elements that should be exchanged by trading partners when using NAESB standards. These data elements may be included in a technical worksheet profile, or as an exhibit in a TPA.

EDM Specifications	Test	Production
Identify your Entity Common Code / DUNS/DUNS+4 Number		
Will you send X12 EDI/EDM Documents?		
Identify your default EDI/EDM Segment Terminator (character 106 in ISA).		
Identify your default EDI/EDM Data Element Terminator (character 4 in ISA).		
Identify your default EDI/EDM Composite Element Separator (character 105 in ISA).		
Identify your EDI/EDM ISA08/GS08 values.		
Will you send the 'time-c-qualifier' in Receipt? (Y/N)	Y (required by RXQ)	Y (required by RXQ)
Will you send non-NAESB packages ('input-format'='PAYLOAD'; e.g. PDF)?		
List expected 'content-ID' values		

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APPENDIX D – RXQEDM / INTERNET ET 2.0 CROSS-REFERENCE

RxQ	RxQ Standards/Definitions/Principal/Interpretations	WGQ	WGQ 1.7 Original Standards/Definitions/Principal/Interpretation	ET	Internet ET 2.0
[11].1.1	RXQEDM standards do not pick winners, but rather create an environment where the marketplace can dictate a winner(s) (4.1.2).	4.1.2	The Electronic Delivery Mechanism does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners.	[10].1.1	The Internet Electronic Transport (ET) does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners (4.1.2).
[11].1.2	RXQEDM solutions should be cost effective, simple and economical (4.1.3).	4.1.3	The solutions should be cost effective, simple and economical.	[10].1.2	Internet ET solutions should be cost effective, simple and economical (4.1.3).
[11].1.3	RXQEDM solutions should provide for a seamless marketplace for energy (4.1.4).	4.1.4	The solutions should provide for a seamless marketplace for natural gas.	[11].1.3	Internet ET solutions should provide for a seamless marketplace for energy (4.1.4).
[11].1.4	Electronic communications between parties to the transaction should be done on a non-discriminatory basis, whether through an agent or directly with any party to the transaction (4.1.7).	4.1.7	Electronic communications between parties to the transaction should be done on a nondiscriminatory basis, whether through an agent or directly with any party to the transaction.	[10].1.5	Electronic communications between parties to the transaction should be done on a non-discriminatory basis, whether through an agent or directly with any party to the transaction (4.1.7).
[11].1.5	Trading Partners should mutually select and use a version of the NAESB RXQEDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to upgrade or adopt later versions of RXQEDM standards as needed, unless specified otherwise by government agencies (4.1.39).	4.1.39	Trading Partners should mutually select and utilize a version of the NAESB WGQ EDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the NAESB WGQ EDM standards, as needed, again unless specified otherwise by government agencies.	[10].1.10	Trading Partners should mutually select and use a version of the NAESB Internet ET standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the NAESB Internet ET standards, as needed, unless specified otherwise by government agencies (4.1.39).
[11].1.6	Market participants should post clear and precise business processing rules at a designated site, and/or in writing upon request (4.1.9).	4.1.9	Service providers should post clear and precise business processing rules at the designated site, or in writing, upon request.		DOES NOT EXIST
[11].1.7	There should be at least one standard automated computer-to-computer exchange of transactional data for each defined transaction data exchange format (4.1.10).	4.1.10	There should be at least one standard (computer-to-computer exchange of transactional data) for data exchange format.		DOES NOT EXIST
[11].1.8	Transaction content and usage should reasonably correspond to defined data dictionaries regardless of mechanism, e.g. FF/EDM, EDI/EDM, etc. (4.1.34x).	4.1.34	For NAESB WGQ FF/EDM, the content and usage of flat files should reasonably correspond to the NAESB WGQ data sets used for NAESB WGQ EDI/EDM.		DOES NOT EXIST
[11].1.9	Automated business processes should use Internet ET, e.g. FF/EDM, EDI/EDM, etc. (4.1.35).	4.1.35	If NAESB WGQ FF/EDM is implemented, flat files should be exchanged via the NAESB WGQ EDI/EDM site or the Customer Activities Web site.		DOES NOT EXIST
[11].2.1	'RXQEDM'. Electric Delivery Mechanism standards for the NAESB RGQ and REQ		DOES NOT EXIST		DOES NOT EXIST

	quadrants that govern package payload file contents, including X12 EDI, Flat-file and other formats.				
[11].2.2	"EDI/EDM". The term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z RXQ standards in the NAESB RXQ Implementation Guides and communicated between trading partners over the Internet using the NAESB Internet ET (4.2.11x).	4.2.11	"NAESB WGQ EDI/EDM" is the term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z NAESB WGQ standards in the NAESB WGQ Implementation Guides and communicated between trading partners over the Internet using the NAESB WGQ Electronic Delivery Mechanism.		DOES NOT EXIST
[11].2.3	"Translator". A program or set of programs that process the contents of payloads, applying ANSI X12 and other standards, and transforms the information to other formats.		DOES NOT EXIST		DOES NOT EXIST
[11].2.4	'Flat-file'. An RXQEDM Flat-file is an ASCII comma-separated-value (CSV) file with the characteristics as defined in the RXQEDM standards.		DOES NOT EXIST		DOES NOT EXIST
[11].2.5	'FF/EDM'. The term used to describe a standardized flat-file electronic data interchange of information in files as mapped from the x.4.z RXQ standards (4.2.12x).	4.2.12	"NAESB WGQ FF/EDM" is the term used to describe a standardized flat file electronic data interchange of information in files as mapped from the x.4.z NAESB WGQ standards. NAESB WGQ FF/EDM is communicated between trading partners over the Internet using the NAESB WGQ Electronic Delivery Mechanism.		DOES NOT EXIST
[11].2.6	'Batch Flat-file'. The term used within the FF/EDM to describe the automated computer-to-computer transfer of Flat-files (4.2.18x).	4.2.18	"Batch Flat File" is the term used within NAESB WGQ FF/EDM to describe the automated computer-to-computer transfer of flat files.		DOES NOT EXIST
[11].2.7	'Interactive Flat-file'. The term used within the FF/EDM to describe the transfer of Flat-files using an interactive browser (4.2.19x).	4.2.19	"Interactive Flat File" is the term used within NAESB WGQ FF/EDM to describe the transfer of flat files using an interactive browser.		DOES NOT EXIST
[11].2.xx	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include QEDM technical exchange information such as ISA numbers, etc. (4.2.26x)	4.2.26	DOES NOT EXIST	[10].2.8	'Trading Partner Agreement', or 'TPA' is a legal agreement between trading parties. The TPA often dictates service level agreements and problem remediation processes. The TPA may include technical exchange information such as URLs, et cetera (4.2.26x).
[11].2.xx	'Business Rule Change'. Any change in: A) the presence and/or the acceptable content of a data element sent by the changing party, B) a new business response to an accepted data element received by the changing party; C) a new business response to the acceptable content of a data element received by the changing party; D) a new intended business result. (WGQ EDM cross-reference 4.3.87)	4.3.87	When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business		DOES NOT EXIST

			response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].2.xx	Testing between trading partners includes testing of: (A) intended business results, (B) proposed electronic transport, including security, enveloping, cryptography; and (C) electronic delivery mechanisms (xxx/EDM), including data validity, standards compliance, etc. (4.2.20).	4.2.20	Testing data sets between trading partners includes testing of: 1. intended business results, 2. proposed electronic delivery mechanisms, and 3. related EDI/EDM and, where supported, FF/EDM implementation issues. Testing should include enveloping, security, data validity, and standards compliance (e.g. ANSI X12 and NAESB WGQ EDM Related Standards).	[10].2.1	'Internet ET Testing'. Testing electronic packages between trading partners includes testing of: A) Connectivity; B) Encryption/Decryption; and C) Digital signatures where appropriate (4.2.20).
[11].3.1	RXQEDM relies on the NAESB Internet ET to enforce the privacy, authentication, integrity, and non-repudiation (PAIN) security principles.		DOES NOT EXIST		DOES NOT EXIST
[11].3.10	RXQEDM 'time' data elements should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.11	RXQEDM 'date/time' data elements that have date and time expressed in one data element should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS, with exactly one space between the day (DD) and the hour (HH) (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour		DOES NOT EXIST

			format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.12	Where they exist for the same business function, Flat-files, EDI and other EDMs should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. (4.3.47)	4.3.47	Where they exist for the same business function, flat files and EDI should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. Corresponding Web pages should use data set names, data element names, code value descriptions, abbreviations and message text that correspond to those used in flat files and EDI, where they exist.		DOES NOT EXIST
[11].3.13	Trading partners should use common codes for legal entities for RXQEDM envelope data elements (4.3.56x, 4.3.21??).	4.3.56	The industry should use common codes for location points and legal entities when communicating via EDI/EDM, EBB/EDM and/or FF/EDM. The corresponding common code name should also be used in EBB/EDM.	[10].3.21	Trading partners should use common codes for legal entities for the Internet ET 'to' and 'from' data elements (4.3.56x).
[11].3.14	Requests for standardization of additional services and/or data elements should be submitted to the appropriate NAESB quadrant Executive Committee (4.3.67).	4.3.67	A Transportation Service Provider which determines to provide new services which do not utilize existing transaction sets via NAESB WGQ EBB/EDM, should, prior to implementation, submit a request for standardization to NAESB WGQ including descriptions of the EBB/EDM, EDI/EDM and, as applicable, FF/EDM implementation.		DOES NOT EXIST
[11].3.15	To the extent that multiple EDMs are used (e.g. EDI or Flat-files), the same business result should occur (4.3.86).	4.3.86	To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.		DOES NOT EXIST
[11].3.16	Non-NAESB Internet ET packages (e.g. PDF files) will have the 'input-format' tag set to 'PAYLOAD' to indicate the format is found in the payload MIME segment. Inside the MIME segment and the 'content-type' header will be set to an appropriate MIME content-type.		DOES NOT EXIST		DOES NOT EXIST
[11].3.2	All RXQEDM payloads should be encrypted with a minimum 128-bit key when sent on unsecured networks (Internet). This encryption is built into transportation using the NAESB Internet ET. Where other transport options are used, a 128-bit Secure Sockets Layer (SSL) encryption should be used (4.3.83).	4.3.83	For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.	[10].3.25	Internet ET Servers should use 128-bit Secure Socket Layer (SSL) encryption (4.3.88).
[11].3.20	NAESB is a member of ANSI and will strive to remain fully-compliant with ANSI ASC X12 standards.		DOES NOT EXIST		DOES NOT EXIST
[11].3.21	RXQ EDI/EDM standards are X12 compliant.		DOES NOT EXIST		DOES NOT EXIST
[11].3.22	Where the X12 standard does not fully meet a need, NAESB will add interim usages and code values when required. When used, NAESB will submit interim usage/code values to ANSI and the appropriate ANSI organizations for acceptance of the interim solution. ANSI's final solution may provide a usage or code value different from the interim solution. NAESB standards will be updated to reflect the final solution.		DOES NOT EXIST		DOES NOT EXIST
[11].3.23	EDI Translators generate the ASC X12 file,		DOES NOT EXIST		DOES NOT EXIST

	including control numbers and counts that will appear within the ISA/IEA outer envelope segments, and within the GS/GE inner envelope segments.				
[11].3.24	The ISA is the interchange control segment to be used on all NAESB X12 standards.		DOES NOT EXIST		DOES NOT EXIST
[11].3.25	The Receiver must send a 997 FA for each X12 file received.		DOES NOT EXIST		DOES NOT EXIST
[11].3.26	Inbound EDI transactions should be processed every day business is conducted. The 997 should be sent within one day of businessas defined by the Receiver, of the receipt of the X12 file.		DOES NOT EXIST		DOES NOT EXIST
[11].3.27	When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.		DOES NOT EXIST		DOES NOT EXIST
[11].3.28	RXQEDM uses X12 Version 4010 standards unless otherwise noted.		DOES NOT EXIST		DOES NOT EXIST
[11].3.3	Trading partners should retain transaction data for at least 24 months for audit purposes. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements (4.3.4).	4.3.4	Trading partners should retain transactional data for at least 24 months for audit purposes. This data retention requirement only applies to the ability to recover or regenerate electronic records for a period of two years and does not otherwise modify statutory, regulatory, or contractual record retention requirements.	[10].3.2	Trading partners should retain audit trail data for at least 24 months. This data retention requirement does not otherwise modify statutory, regulatory, or contractual record retention requirements (4.3.4).
[11].3.4	Timestamps that indicate the time transactions were received by a party should be the 'time-c' timestamp from the Internet ET Response (4.3.8).	4.3.8	The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by NAESB WGQ.	[10].3.4	The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by NAESB Internet ET (4.3.8).
[11].3.40	FF/EDM records are separated by a carriage return/line feed (CRLF or \r\n or ASCII 10 and 13) (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.41	The first record of an FF/EDM Flat-file should be the standard abbreviations for RXQ data elements in the order the corresponding data	4.3.81	DOES NOT EXIST		DOES NOT EXIST

	appears in subsequent rows. The data element order is at the option of the sender (4.3.81)				
[11].3.42	If an FF/EDM Flat-file data element abbreviation is not recognized, the entire Flat-file should be rejected(4.3.80)	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.43	Each transaction (e.g. Enrollment) should be contained in a single FF/EDM Flat-file record (4.3.82).	4.3.82	For NAESB WGQ FF/EDM flat files, each transaction (e.g. nomination) should be contained in a single row.		DOES NOT EXIST
[11].3.44	FF/EDM data elements are separated by commas (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.45	FF/EDM data elements that may contain a comma should be enclosed by double-quotes (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note		DOES NOT EXIST

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			that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.46	FF/EDM data elements should not contain double-quotes (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.47	FF/EDM data elements that contain negative numbers should have the minus sign precede the number (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.48	FF/EDM data elements that contain decimal precision should include the decimal point within the data element (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note		DOES NOT EXIST

			that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.49	FF/EDM data elements that contain numeric data with one or more significant leading zeros should preserve these zeros within the data element (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.5	RGQ and REQ require the use of the Internet ET Response 'time-c-qualifier' data element to identify the time-zone of the Receiver's timestamp (4.3.9).	4.3.9	For NAESB WGQ EDI/EDM and FF/EDM, there is a time stamp (HTTP Timestamp) that designates the time that a file is received at the designated site. The receiving party should generate a timestamp upon successful receipt of the complete file and send as an immediate response to the sending party. The timestamp should be generated by Common Gateway Interface (CGI) of the receiving party, prior to further processing by the CGI. GPD-DOES NOT MATCH	[10].3.5 and [10].3.7	A timestamp designates the time a file is received at the Receiver's designated site. The timestamp consists of the 'time-c' data element, and in some cases the 'time-cqualifier' data element. Refer to QEDM standards for use of the 'time-c-qualifier' (4.3.9). and After timestamp generation, the Receiver and sends an immediate HTTP Response to the Sender. The 'gisb-acknowledgement-receipt', which includes the timestamp data element(s), is the primary part of the HTTP Response. (4.3.9)
[11].3.50	FF/EDM 'date', 'time', and 'date/time' data elements should conform to RXQEDM and ISO standards: date=YYYYMMDD, time=HH:MM:SS, date/time=YYYYMMDD HH:MM:SS (4.3.80)	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS		DOES NOT EXIST

			when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		
[11].3.51	FF/EDM data elements should be no longer than 256 characters (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		DOES NOT EXIST
[11].3.52	FF/EDM Flat-files should not contain mixed record formats in a single file (e.g. a single file with both Enrollments and Invoices).		DOES NOT EXIST		DOES NOT EXIST
[11].3.53	FF/EDM payloads should be encrypted prior to Internet transport when not using Internet ET. SSL encryption is sufficient.	4.3.83	For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.		DOES NOT EXIST
[11].3.54	Transactions sent using FF/EDM should produce the same business result as other EDMs (e.g. EDI/EDM)	4.3.86	To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.		DOES NOT EXIST
[11].3.6	Timestamps used within RXQEDM transactions should be generated using clocks that are synchronized with the localized prevailing National Institute of Standards and Technology (NIST) time to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as often as necessary to ensure a+/- 5 second variance with an atomic clock. Specific business processes may have tighter synchronization requirements (4.3.10x).	4.3.10	The time-stamp should be included in the HTTP response back to the sender of the original HTTP transaction. The server clock generating the time-stamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the sender and receiver.	[10].3.8	The Server clock generating the timestamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the Sender and Receiver. Computer clocks should be synchronized as necessary to ensure at minimum +/- 5 second synchronization with an atomic clock. Specific business processes may have tighter synchronization requirements (4.3.10x).
[11].3.60	When a party changes the business rule(s) it will apply to documents, it should notify its trading partners at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing, the intended business result of such	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance,		DOES NOT EXIST

	change(s) in the business rule(s), and the scheduled effective date of such change(s) (4.3.87).		or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].3.61	Trading partners implementing Business Rule Changes should provide testing of change(s) during at least a two-week time period prior to the effective date of the change(s) (4.3.87).	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying		DOES NOT EXIST

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			trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		
[11].3.62	Trading partners are permitted to cancel or postpone scheduled changes. Notice of cancellation or postponement should be provided to trading partners at least one business day prior to the scheduled effective date (4.3.87).	4.3.87	4.3.87 When the receiver of: 1) a Nomination, 2) a Pre-determined Allocation, or, 3) a Request for Confirmation, has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of: 1) a Confirmation Response (solicited and unsolicited), 2) a Scheduled Quantity, 3) a Scheduled Quantity for Operator, 4) an Allocation, 5) a Shipper Imbalance, or, 6) an Invoice has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s). For the purposes of this standard, a business rule change is any change in: a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice; b) a new business response to an accepted data element which is received by the trading partner sending notice; c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or, d) a new intended business result to be communicated to a receiver by the trading partner sending notice; Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s). Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.		DOES NOT EXIST
[11].3.63	Trading partners should use dedicated testing systems that are representative of production systems.		DOES NOT EXIST		DOES NOT EXIST
[11].3.7	When Internet ET is used, the Internet ET Receipt timestamp supercedes any EDM timestamps with respect to official time the document was received by the Receiver.	[11].3.27	When Internet ET is used, the Internet ET receipt timestamp is the official receipt timestamp. Without Internet ET, the 997 timestamp is the official receipt timestamp.		DOES NOT EXIST
[11].3.8	When Internet ET is not used, the receipt timestamp is defined by each specific EDM.		DOES NOT EXIST		DOES NOT EXIST
[11].3.9	RXQEDM 'date' data elements should be formatted as YYYYMMDD (4.3.80).	4.3.80	NAESB WGQ FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means: Rows are separated by a carriage return/line feed (CRLF). Fields are separated by commas. When a field contains a comma, the field should be enclosed by double-quotes. Double-quotes should not be used within any data field. When numeric data is negative, the minus sign should precede the number. When numeric data contains decimal precision, the decimal point should be included within the field. When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file. Date fields should be		DOES NOT EXIST

			formatted as YYYYMMDD. Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable. Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one NAESB WGQ data element. Note that there should be exactly one space between the day (DD) and the hour (HH). The maximum amount of data to be placed in a field should be limited to 256 characters. When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.		

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Retail Quadrants

TAB 15

Requests in Development - J.C. Penney/Wal-Mart

(Green Trading and Retail Electric Contracts will be discussed, but no draft requests are available for either possible development at this time)

Rae McQuade
NAESB, Executive Director
1301 Fannin, Suite 2350
Houston, TX 77002

Re: Request for Initiation of a NAESB Business Practice Standard: Standardization of Electronic Billing

Dear Ms. McQuade:

As large national, multi-site energy consumers, we urge NAESB to consider standardizing retail utility electronic billing (EB) transactions. The organizations represented below (and several others) conduct business transactions with numerous utilities from all over the U.S. to satisfy the reconciliation of billing and payments associated with our energy, transmission, and distribution consumption. Uniform standards would help reduce costs for customers and utilities by streamlining business processes.

This letter serves to support and complement the request for standards from the JC Penney Company (enclosed). The organizations below have similar concerns and needs and wholeheartedly support standards.

EB/EDI is certainly not new to our businesses. For years, retailers, grocers, restaurants, and other chains have utilized it for practically everything that we buy and sell. In most cases, vendors can not conduct business with our companies unless they utilize an EB/EDI platform.

It is encouraging to see that more utilities are offering EB/EDI to customers. Most national accounts customers or their third party billing agents participate in utility electronic billing transaction programs when feasible. And although we welcome utilities into the "fold," we have found some programs to be very inconsistent and onerous to the point that participating is not cost effective. In service territories where the utility offers EB/EDI, the lack of formatting consistency from one utility to another complicates matters. We experience a wide variety of differing formats which leads to critical data discrepancies. For instance, Utility A may have room for 6 characters and Field #1, but Utility B has only 3 characters.

While we realize that there is much work to done concerning this issue, we are confident the effort will be worthwhile. Customers will benefit with less late fees and the reduced costs of sending, receiving, interpreting, and paying monthly utility bills. Utilities will certainly gain by way of timelier payments, reduced mailing/processing costs, and better customer service.

Please feel free to call us if you have any questions.

Thank you for your consideration.

Sincerely,

D. Keith Masten
Sr. Procurement Agent
JCPenney Company
(972) 431-2611

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Instructions:

1. **Please fill out as much of the requested information as possible. It is mandatory to provide a contact name, phone number and fax number to which questions can be directed. If you have an electronic mailing address, please make that available as well.**

2. **Attach any information you believe is related to the request. The more complete your request is, the less time is required to review it.**

3. **Once completed, send your request to:**
   Rae McQuade
   NAESB, Executive Director
   1301 Fannin, Suite 2350
   Houston, TX 77002

   Phone: 713-356-0060
   Fax: 713-356-0067

   by either mail, fax, or to NAESB's email address, naesb@aol.com.

Once received, the request will be routed to the appropriate subcommittees for review.

Please note that submitters should provide the requests to the NAESB office in sufficient time so that the NAESB Triage Subcommittee may fully consider the request prior to taking action on it. It is preferable that the request be submitted a minimum of 3 business days prior to the Triage Subcommittee meetings. Those meeting schedules are posted on the NAESB web site at http://www.naesb.org/monthly_calendar.asp.

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Date of Request: October 1, 2004

1. Submitting Entity & Address:
   See Attached

   J.C. Penney Company, Inc.
   M/S 4215
   6501 Legacy Drive
   Plano, TX 75024-4215

2. Contact Person, Phone #, Fax #, Electronic Mailing Address:

	Contact Person	EDI Representative
Name :	Keith Masten	Jason Clark
Title :	Sr. Procurement Agent	Project Manager
Phone :	972-431-2611	972-431-2977
Fax :	972-531-2611	972-531-2977
E-mail :	kmasten@jcpenney.com	jclar14@jcpenney.com

I would also recommend Tom Moriarty, Manager of EDI Support, as an additional contact for EDI information as it relates to e-commerce for JCPenney. He can be reached at tmoriart@jcpenney.com. Any new transactions/technologies we would want to implement would need to be coordinated through Tom.

Description of Proposed Standard or Enhancement:

Standards or model business practices for electronic retail billing transactions and bill payment transactions between customers, suppliers, and utilities.

Energy-consuming, National Accounts (NA) with multiple facilities that span several utility service territories are required to engage with numerous utilities to satisfy the reconciliation of billing and payments associated with their commodity consumption and distribution and transmission services. Therefore, customers with a nationwide footprint (e.g., Wal-Mart, Radio Shack) must support multiple methods of receiving, interpreting and paying bills monthly for each account.

In service territories where EDI is not available the NA customer receives a large volume of paper-based transactions on a recurring monthly basis. Further complicating the problem is the complete lack of formatting consistency from one utility to another.

In service territories where the utility offers EDI billing, the NA customer experiences a wide variety of EDI standards and requirements. Although EDI has been in existence for more than 20 years and is a normal means of transacting business in most industries, it has not seen similar levels of success in billing transactions between energy utilities and their retail customers.

For utilities that serve these customers, it can also result in significant quantities of data, invoices, and payment transactions that are generally consistent in format from month-to-month. With the nature of these transactions, they are suitable for execution using electronic communications.

4. Use of Proposed Standard or Enhancement (include how the standard will be used, documentation on the description of the proposed standard, any existing documentation of the proposed standard, and required communication protocols):

Although efforts are underway to develop implementation standards for electronic transactions between suppliers and utilities, there are no efforts underway to establish standards for electronic transactions between customers, suppliers, and utilities. NA customers and utilities alike have expressed interest in establishing standards for electronic billing communications.

While adoption of NAESB standards is voluntary, any voluntary adoption of developed standards would help to reduce the cost of sending, receiving, interpreting, and paying monthly utility bills. Also, it is hoped that over time more and more billing participants would adopt these voluntary standards; thus reducing costly exception processing. Whether a NA customers uses a 3rd party vendor to process and pay utility and energy bills or handles that process in house, uniform EDI standards would reduce costs.

5. Description of Any Tangible or Intangible Benefits to the Use of the Proposed Standard or Enhancement:

More efficient business processes for utilities, suppliers and customers alike. Reduced late payments. Reduced costs and improved customer service.

JC Penney's internal costs to process an EDI bill / payment is less the $1.00 per invoice. While Penney's currently uses a 3rd party vendor to process and pay its utility and energy bills, it is anticipated that the cost of processing bill which are providing in an EDI format could easily save our company between $100,000 and $200,000 annually. We are extremely interested in seeing a uniform format established for EDI standards. Uniform standards would help reduce costs for 3rd party vendors, which would ultimately help reduce our costs as well. Input from this group should be given significant consideration along with feedback from other national account customers.

6. Estimate of Incremental Specific Costs to Implement Proposed Standard or Enhancement:

Specific implementation costs for NA customers and utilities are unknown at this time. The customer organizations on the attached list are willing to commit time, feedback, and expertise to help develop standards.

7. Description of Any Specific Legal or Other Considerations:

Regulations may exist that govern bill content and presentation. These regulations will need to be considered when establishing standards.

Also, billing complexity can increase with deregulation, as competitive charges are unbundled from the non-competitive charges. That said, however, unregulated energy providers are also likely to have newer, more flexible billing systems, or even outsource to application service providers (ASP) who are also more likely to have electronic billing capacity.

8. If This Proposed Standard or Enhancement Is Not Tested Yet, List Trading Partners Willing to Test Standard or Enhancement (Corporations and contacts):

The above listed customer organizations (and more if necessary).

9. If This Proposed Standard or Enhancement Is In Use, Who are the Trading Partners :

Consumers, utilities, retail energy providers, and third billing agents.

10. Attachments (such as: further detailed proposals, transaction data descriptions, information flows, implementation guides, business process descriptions, examples of ASC ANSI X12 mapped transactions):

Should we decide in the future to bring this bill payment function in-house the following would be relevant to this objective:

In general, X12 standards are very broad and cover many different types of industries. To meet a consensus with our trading partners, JCPenney subscribes to the VICS (Voluntary Inter-industry Commerce Standard) which is used by the retail merchandise industry.

Support of a standard outside of our current VICS standard could easily be cost prohibitive to implement. For example, in Procurement, suppliers that we purchase paper from for catalog, pre-prints, and other media, use an entire different subset of ANSI standards (GCS) for the print industry. The cost to implement a whole new subset of standards for only a handful of suppliers (10-12) was too cost prohibitive. We found a way to implement EDI with those suppliers within our existing capabilities. For commodities such as energy, phone services, etc. I would recommend we look at implementing the EDI 811-Consolidated Service Invoice/Statement transaction. JCPenney does not currently support this transaction, but it doesn't mean that it couldn't be. We'd have to look at the impact and cost to support it.

We would recommend looking at the ANSI X12 811 transactions as a possible solution. If further details on this transaction are needed, Jason can request generic ANSI mapping specifications of this transaction.