

NEW JERSEY BOARD OF PUBLIC UTILITIES
RETAIL CHOICE GAS EDI ASSESSMENT
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I. Executive Summary

This report is submitted to the New Jersey Board of Public Utilities (“NJBPU”) in December, 2005 to provide a comprehensive view of the findings and recommendations developed as part of the statewide Electronic Data Interchange (“EDI”) Gas Assessment Study. Gestalt, LLC personnel performed this analysis for the NJBPU in 2005. The executive summary provides an overview of the project’s purpose, approach, results, and recommendations while the body of the report reviews these elements in greater detail.

A. Project Background

In early 2005, NJBPU Staff recognized the need to assure that the competitive New Jersey natural gas market is running smoothly particularly in the data exchange area. Staff called upon Gestalt to provide an independent, holistic assessment of the electronic data exchange being used by the gas distribution companies (“GDCs”)¹ and third party natural gas suppliers (“TPSs”) to ensure that there are no major gaps in the ability to support current and future operations. This report details the findings and recommendations developed during this assessment.

B. Project Objective

Based upon discussions with NJBPU Staff, it was determined that the assessment would have the objective of answering three primary questions:

1. How is the New Jersey gas industry’s data exchange working?
2. Are there any enhancements necessary in either process or technology to enable more efficient and accurate exchange of customer information?
3. Should the NJBPU look at improving the rules that allow for the exchange of data in the gas industry, including consistency across the GDCs?

C. Assessment Process Overview

Information was gathered from interviews and data requests, and the information was then organized to develop a better understanding of the existing EDI operations of the GDCs, the progress of the competitive gas marketplace in New Jersey, and the current state of the data exchange policies and procedures. This information was documented, analyzed, and compared to industry best practices. Finally, recommendations for consideration were developed.

D. Results and Recommendations

The New Jersey Gas Industry’s Retail Choice Electronic Data Exchange System appears to be running well. The GDCs are compliant with the NJ-approved EDI standards. Several GDCs are still running secondary (proprietary) data exchange systems. These proprietary systems do not necessarily comply

¹ The GDCs are: Elizabethtown Gas Co. (“ETG”); New Jersey Natural Gas Co. (“NJNG”); Public Service Electric & Gas Co. (“PSE&G”); and South Jersey Gas Co. (“SJG”)

with all NJ-approved business rules for Retail Choice. We recommend that the NJ BPU consider a collaborative approach, including all market participants, to standardize the business rules for conducting daily business transactions between the GDCs and TPSs..

II. Gas Deregulation in New Jersey

A. Brief History of Deregulation in New Jersey

The initial Gas Choice program started in the late 1980's with the Transportation Gas Program. In the mid 1990's gas deregulation continued with processing firm accounts which consisted of industrial and large commercial accounts. The GDCs maintained a manual process that included proof of a customer authorized switch through a wet signature, provided by the TPSs.

During the Mid 1990's GDCs typically used Electronic Bulletin Boards to view daily delivery. By 1997, the GDCs were involved in the standardization of transactions.

In 2000 and 2001, the GDC's were involved in the design of Gas EDI Standards. The state moved forward with the Customer Account Services ("CAS") program Data Exchange for Gas Deregulation in New Jersey.

1. Enabling Components

Gas Deregulation in New Jersey is enabled through the combination of three primary components, all of which are under the scope of control, i.e. approval, of the New Jersey Board of Public Utilities. They are as follows:

1. New Jersey Business Rules which define the business processes and supporting transaction process flow for NJ Gas Deregulation
2. Transaction Data Format requirements to enable the NJ Business Rules for NJ Gas Deregulation
 - a. GDC variations are recognized and included herein
3. Transaction Data Transport protocols to enable the transaction process flow for NJ Gas Deregulation

2. Approved Standards

The NJ BPU has approved the following business and technical standards for Gas Deregulation in New Jersey.

1. New Jersey Business Rules: The current New Jersey standard for Business Rules for Gas Deregulation is Electronic Data Exchange and Protocol Process Flows for Gas Deregulation in The State of New Jersey dated March 8, 2002.
2. New Jersey Transaction Data Formats: The current New Jersey standard for Transaction Data Formats for Gas Deregulation is:
 - a. Technical Protocol: ASC ANSI X.12 v4010
 - b. Transaction Definition: Transaction Usage, Structure and Data Elements based on Utilities Industry Group ("UIG") and New Jersey Electric Deregulation transaction data formats, with:
 - i. Applicable differences for Gas and NJ rules
 - ii. Variations for GDC-specific requirements and constraints

3. New Jersey Transaction Data Transport Protocol: The current New Jersey standard for Transaction Data Transport for Gas Deregulation is the Gas Industry Standards Board (“GISB”) Electronic Delivery Mechanism (“EDM”) v1.4. (Please note that, subsequent to adoption of this standard, GISB has reorganized and renamed itself as the North American Energy Standards Board (“NAESB”). Although subsequent versions of the EDM standard have been released by NAESB, the v1.4 standard remains intact and in use for New Jersey, without issue.)

In addition to approving the aforementioned standards for Gas Deregulation, the NJBPU has also authorized the continued use of proprietary, legacy, GDC-specific data format and data transport protocols for Gas Deregulation, at the GDC’s discretion to offer it, as an optional alternative to the statewide standards. However, such offering by a GDC does not alleviate its need to comply with the statewide standard, nor does it limit the ability of a Third Party Supplier to choose to use the statewide standard with any GDC.

III. Assessment Methodology

A. Assessment Approach

This Assessment was conducted in three phases, as follows:

1. Assessment planning, wherein the Objectives, Approach and Participants were identified.
2. Assessment Survey, wherein the Participants were interviewed relative to specific areas of interest to establish a baseline understanding of their capabilities and challenges for Electronic Data Interchange for NJ Gas Deregulation.
3. Assessment Report (this document), wherein the findings from the surveys and interviews were documented and observations and recommendations were made with regard to the current status of Electronic Data Interchange for NJ Gas Deregulation.

B. Assessment Participants

The GDCs were the primary participants in the assessment. The following individuals participated on the assessment on behalf of each GDC.

GDC	GDC Representative(s)
PSE&G	Calvin Ledford, Manager, Third Party Supplier Support
NJNG	Judy DeSalvatore, Manager, Gas Transportation
ETG	Mike Vogel, Manager, Business Operations
SJG	Jeff Howell, Manager, Transportation Services Administration Patrick Finnigan, Vice President, Information Systems

To achieve a balanced perspective, several TPSs were also invited to participate in the assessment. Two TPSs agreed to participate on the condition of anonymity, due to concerns that their feedback may result in an adversarial relationship with the GDCs.

IV. Gas Distribution Company Interview Findings

A. GDC Compliance with the NJ Approved EDI Standards

The following table indicates each GDC’s compliance status with respect to the enabling components of the approved NJ EDI standards.

Standard	PSE&G	NJNG	ETG	SJG
Business Rules	✓	✓	✓	✓
Transaction Data Formats (NJ X.12 v4010 Transactions)	✓*	✓*	✓*	✓*
Data Transport Protocol (GISB EDM v1.4)	✓	✓	✓	✓

* Note that GDC-specific variations have been included and approved in the Transaction Data Format standards to accommodate GDC-specific requirements and constraints. This assessment did not evaluate whether all GDC-specific variations that are occurring in practice are actually recorded in the documents (the Implementation Guides).

In addition to supporting the NJ Approved EDI Standards, the following GDCs also continue to operate their legacy, GDC-specific data format and data transport protocols for Gas Deregulation, for use as requested by TPSs.

- NJNG
- ETG
- SJG

B. Gas Distribution Company Survey Results

The tables and charts below reflect the responses received during the interview sessions with the gas distribution companies.

Please note that although the GDCs were responsive in providing direct answers to the survey questions, supporting detail was not provided by the GDCs. As a result, the following tables and charts reflect “generalities” of the GDCs’ operations.

1. Enrollment Request Response Time

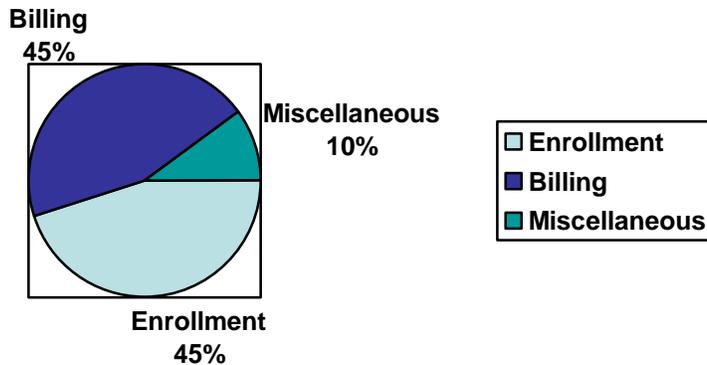
The following table provides a summary of each GDC’s response time in processing enrollment requests received from the TPSs.

GDC	Enrollment Request Response Time
PSE&G	24 hours
NJNG	24 hours
ETG	24 hours
SJG	24 hours

2. GDC Issue Management

The following chart provides a general summary of the variety and distribution of issues encountered and managed by each GDC.

GDC Issue Management



3. 814 Enrollment Response

All of the GDCs surveyed responded that they respond with a rejection or acceptance of the Enrollment request within 24 hours of receipt.

4. Missing Transactions

All of the GDCs surveyed responded that they rarely see missing transactions as a problem within data exchange.

C. Observations

1. General Observations and Findings

The gas distribution companies interviewed, believe that the current process is working fine with few issues or problem areas. In our discussions with the GDCs, it was observed that they are not all using the NJ approved EDI standards with every third party supplier. All GDCs offer the NJ-approved standard EDI approach, but several also allow exchange of information utilizing proprietary systems developed prior to the standard EDI decision. It appears that the proprietary systems all have different processes and or controls and promotes manual effort for the third party suppliers. The GDCs using EDI with TPSs seem to be more structured because of the implementation guidelines associated with each transaction set. There seems to be differences in when data is sent out, due to the billing option each trading partner has selected for a customer. For example, consolidated billing customer data is being sent out within 3 days of the meter read in most territories, however, with dual billing or rate ready billing customer data is not being sent to the trading partner until the bill is processed at the gas

distribution company. Those third party suppliers that are in territories with Rate Ready billing will be unable to answer customer questions due to a delay in receiving usage information, thus causing customer confusion.

2. Enrollment Processing

Based on the interviews, the enrollment process seems to be running well at the GDCs. Enrollment requests are usually turned around within 24 hours and there seems to be little issue with missing transactions. All drops and cancels seem to process with few to no problems. Functional acknowledgements are processed immediately after receiving a data file, so that a trading partner can process data appropriately.

3. Billing Transactions

Consolidated Billing Transactions at the GDCs using EDI are working well with few problems. The GDCs that are utilizing proprietary methods indicate it is going well, but also agree that some of the processing is manual.

4. Third Party Supplier Customer Service

The GDCs all report good performance in their TPS administration areas, and report few problems. As the market matures they feel they are improving and also believe that they are becoming more automated. There seems to be the right level of GDC attention to TPS problems, and the resolutions to problems are completed in a timely manner.

V. New Jersey Third Party Supplier Companies' Observations

A. Observations and Findings

Please note that the two TPSs agreed to participate on the condition of anonymity, due to concerns that their feedback may result in an adversarial relationship with the GDCs.

The TPSs interviewed feel that the current process is working well in some areas but also believe that there are some improvements needed in order for the program to work well across the state. Achieving consistency across the GDCs, especially in the areas of detailed business rules and data elements provided, is the key area for improvement of the state program. The following comments are generally applicable to all GDCs.

Enrollments seem to be timely and working well, however there seems to be issues around consistency with the processing of usage and billing data. In some areas meter change-outs are posing issues. The TPSs believe that there may be manual processes behind the generation of the billing and usage data at the GDCs. Processing rules are not always consistent across the GDCs. For example, the TPSs see inconsistencies in the data they receive. This symptom is indicative of manual intervention.

There is a concern that as mergers becomes more prominent, having supplier administration groups located outside of the State may pose some supplier administration timeliness issues. The following section provides highlights of the TPSs' comments regarding their experiences with each GDC.

B. Processing at South Jersey Gas

Enrollments are completed through an enrollment spreadsheet. Third party suppliers usually receive confirmation within 24 hours. This process is a manual process for SJG and the TPS. Usage is received daily through the Electronic Bulletin Board System ("EBB").

1. General Concerns with processing at South Jersey Gas

1. Bill is on the account level – adjustments on one meter that may cause overlaps on service start and end dates.
2. South Jersey Gas does not send credits on rebills. Typically GDC's will send a credit amount with the rebill transaction or file. South Jersey case does not send this information pertaining to a rebill record for a customer.
3. Transportation Gas customers are not on Electronic Bulletin Board, thus Third Party Supplier must rely on spreadsheets (Manual Process).
4. EDI with South Jersey – A problem for the third party suppliers is that SJG will only allow EDI for LDC Consolidated Billing not Supplier Consolidated Billing.

C. Processing at Public Service Electric & Gas

In general, processing is timely and accurate with PSE&G. EDI processing is completed within 24 to 48 hours. The third party suppliers are pleased with response times on handling issues.

1. General Concerns with Processing at PSE&G

1. Usage is billed at the meter level but credits are received at a summary level, causing manual synchronization.
2. Third party suppliers have run into file definition problems with PSE&G
3. When an account has multiple meters that are not read on the same date, PSE&G waits to send usage until they have received all of the meter reads, causing a delay for the TPS to receive usage.
4. Logic for meter read dates overlaps at times causing a manual processing problem for the TPSs. The third party suppliers feel they are handcuffed because of utility billing rules.
5. The TPSs would greatly appreciate receiving more detailed change reason codes in the transaction.
6. Lately, missing reads or usage seems to be a problem, causing delays in TPS billing.

D. Processing at Elizabethtown Gas

The processing with ETG has been through the Electronic Bulletin Board System, although ETG is GISB compliant. Overall, there is concern that there is only a skeleton staff, and that when the support staff moved to Georgia, responsiveness declined.

1. Concerns with Processing at Elizabethtown Gas

1. Enrollment drops are received at times via Fax, causing a manual process.
2. Billing is at the account level not at the meter level (lack of detail).
3. There is date overlap on service start and service end dates, causing a manual process.
4. Enrollment notification is non-existence; there should be some processing rules forcing notification to mirror the EDI process.

E. Processing at New Jersey Natural Gas

NJNG is GISB compliant, and the TPSs interviewed are still using the NJNG Website. Overall, responsiveness is timely.

1. General Concerns with Processing at New Jersey Natural Gas

1. Using spreadsheets for enrollment (manual process).
 - a. Manual processing has caused human errors in Enrollment Processing.
2. Enrollment process seems to be more complicated than it needs to be. If secondary transaction processing could follow EDI Guidelines, exchange could be more efficient.
3. There are consistent problems with the website, reliability is low.

VI. GDC Comments

All Gas Distribution Companies have responded to the preliminary review period of the NJ Gas EDI Assessment Report. All Gas Distribution Companies commented that at the time of the interviews there were few TPS issues with the exchange of information between trading partners. For those Utilities who offer a secondary method of exchanging information, they report that their alternative systems are automated. The perception of manual intervention is an incorrect perception by the Third Party Suppliers. All Gas Distribution Companies report a high satisfaction rating from suppliers and are open to feedback from the Third Party Suppliers. The Gas Distribution Companies believe that the responses by a few Third Party Suppliers does not represent the consensus in how EDI/Data Exchange is working..

VII. Recommendation

Our interviews with a subset of the market participants (all GDCs and two TPSs) have provided information generally reflecting that Gas Data Exchange in New Jersey is running well. However, although all Gas Distribution Companies are compliant with the NJ-approved EDI standards, many interactions between the GDCs and the TPSs are still running on secondary (proprietary) data exchange systems. There seems to be confusion and a lack of standards across the industry participants that, if corrected, would help increase efficiency and accuracy. The possibility of high volumes of transactions reinforces the need for consistency and accuracy in the capture and exchange of retail choice transaction data. The use of consistent, standardized automated methods, in lieu of manual processes, not only enables more information to be transmitted timely and accurately, but provides a more transparent audit path for all market participants.

For deregulation to be truly successful in New Jersey, Standards and IT Controls are vital. The consistent use of agreed-upon standards and controls will provide a common format that will make it possible for all market participants to implement the processes and systems needed to exchange business information in New Jersey. We believe that these standards and controls can be applied across the multiple transport and format methods being used today, to minimize the need for a total overhaul for some participants.

Therefore, we recommend a collaborative approach between all market participants, to consider the standardization of the business rules and controls that are used to manage the exchange of retail choice information, regardless of the technical solution that is used.

The parties (the GDCs and the TPSs) could have informal discussions on the feasibility of such standardization, and the NJBPU's current EDI working group can monitor their progress.

It should be noted that currently there are not high volumes of transactions, as the retail gas market is not that active. Therefore, any major system changes/upgrades would be subject to cost benefit analysis.

